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CBRNE DIARY



PART A



Oral drug to remove
radioactive contamination

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Topics that attracted attention!

EDITOR'S CORNER



**Editorial**

Brig Gen (ret.) Ioannis Galatas, MD, MSc, MC (Army)

Editor-in-Chief
ICI C²BRNE DiaryICI
International
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The global situation remains the same: proxy war in Europe – pandemic ended (?) but still killing people – stupidity and lack of interest in peace!

Ukraine War: 16.7 billion USD have been given (until now) by the “West” to fight Russia – the number might not be accurate because financial inflow is multi-level (overt and covert). Germany announced that will give 2.7 billion euro as well. WWII revenge? Plus 1.2 billion euros from EU (macroeconomic support [MFA] they call it). [Money, money, money!](#)

UK Coronation: £100-200 million (estimated cost); 29,000 police officers in the streets (plus facial recognition system) and a Bank of England boss (annual salary: £190,000) who stated that people in the UK simply need to accept that they are poorer. Perhaps this is what the infamous “British phlegm” is! If you add the [6.63 billion](#) euros given to Ukraine (2022-2023) plus the £162 million the funeral of late Queen Elisabeth cost, one can think of 1000 ways to spend this money for the Brits. Like producing more ammunition to be able to fight for more than 22 hours (according to retired [Major General Rupert Jones](#)).

Denmark for Peace: The country will provide Ukraine with the biggest military aid package to date worth \$250 million (the package will include mine clearance machines, ammunition, field bridges, and funds for air defense).

Future Wars: A combination of armed drones and artificial intelligence. And lots of ammunition of all kinds. No need to buy F-35s, 5th, 6th, or 7th-generation warplanes.

USA: Possession of [pipe bombs](#) is considered as WMD but not the possession of one or more assault weapons!

AI: Experts warn that AI could be dangerous for society and the planet itself. So, why do we continue to invest in AI without control? Are we hazardfilic or what? What is for sure is that we are sh*t [scared!](#)

Illegal Immigrants: It seems that even the Irish had enough. [Dublin](#) Migrant shanty town destroyed by locals. And Ireland is not an “EU Gate”! Many countries will follow since the invasion is out of limits. And nobody is interested in the root management of the problem – mostly countries of origin.

Good News: First-in-human trial of an oral drug to remove radioactive contamination begins!

The Editor-in-Chief

Lithuania law to allow 'volunteer' border guards to use violence

Source: <https://euobserver.com/migration/156944>

Lithuania has a 680km border with Belarus, which includes around 550km of fences

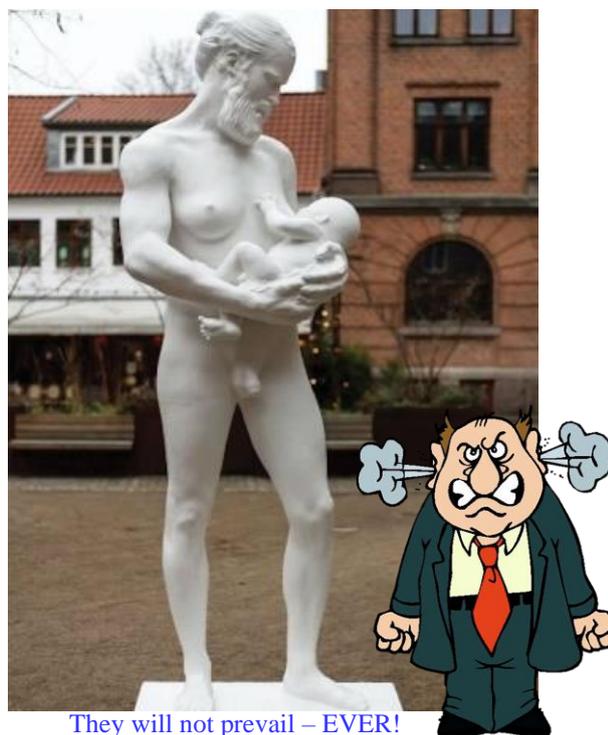
Apr 20 – Lithuania's parliament passed a controversial new law allowing volunteers from around Europe to join its national border guard force — while giving them the right to use violence against asylum seekers and migrants crossing in from Belarus.



Agape

Source: <https://sputnikglobe.com/20220203/from-handsome-to-disgusting-danes-divided-over-controversial-statue-of-breastfeeding-man-1092705860.html>

A statue of a breastfeeding man inaugurated in the foyer of the Gender Museum in the Danish city of Aarhus has stirred debate among the Danish public. The 3.5-metre-high statue shows a naked man with long hair and a beard. In addition to the classic physical male characteristics such as broad shoulders, narrow hips and a penis, the sculpture is also equipped with female breasts. Named "Agape", the Greek word for the highest form of love (as opposed to "eros", or erotic love, and "philia", or brotherly love), the statue was designed using 3D scans of the artist's own body and that of his girlfriend. The goal of the statue, according to artist Aske Jonatan Kreilgaard, is to "question what the man should be and be able to do". According to Kreilgaard, the sculpture hadn't been made with provocation in mind. However, he welcomes the ensuing conversation. "I'm glad it's starting to talk about these things. I think it's exciting to see what it creates of emotions, and we don't necessarily have to agree," Aske Jonatan Kreilgaard [told](#) TV2. According to the museum inspector at the Gender Museum, Julie Rokkjær Birch, "Agape" provides an apt occasion for dispute about the male gender.



Ukraine needs "tenfold" military aid from the West, says Mr. Foreign

Source: <https://newsbulletin247.com/world/312567.html>

Apr 23 – A former Ukrainian ambassador to Berlin who has at times been criticized for his comments, Melnyk has called on allies to give Kiev military aid equal to 1 percent of their country's GDP. Doing so would amount to a gigantic increase in military aid to Ukraine.

Although Kiev is grateful to its allies for the military aid they have sent, Ukraine needs at least 10 times as much, Deputy Foreign Minister Andrii Melnyk said on Saturday.

A former Ukrainian ambassador to Berlin who has at times been criticized for his comments, Melnyk has called on allies to give Kiev military **aid equal to 1 percent of their**

country's GDP. Doing so would amount to a gigantic increase in military aid to Ukraine.

"We are grateful to our allies for their military assistance. But it is not enough! Ukraine needs tenfold to end the Russian invasion this year," Melnyk wrote on Twitter.



In the case of Germany alone, the largest economy in Europe, this would translate to more than \$39 billion. Ukraine's deputy foreign minister points out that these sums would pale in comparison to spending during the Second World War. To date, the estimated value of allied aid to Ukraine is estimated at nearly \$55 billion, according to Melnyk.

EU's Borrell urges European navies to patrol Taiwan Strait

Source: <https://www.trtworld.com/asia/eu-s-borrell-urges-european-navies-to-patrol-taiwan-strait-67305>

Apr 23 – **EU Foreign Policy Chief** Josep Borrell has called on European navies to patrol the disputed Taiwan Strait, in an opinion piece in a French weekly.

Borrell's comments in the *Journal Du Dimanche* on Sunday echo comments he made last week when he

stressed how crucial Taiwan is to Europe. Taiwan "concerns us economically, commercially and technologically", Borrell said. "That's why I call on European navies to patrol the Taiwan Strait to show Europe's commitment to freedom of navigation in this absolutely crucial area."

Two weeks ago, China launched three days of military exercises around Taiwan -- simulating targeted strikes and a blockade of the island -- in response to a meeting between Taiwanese President Tsai Ing-wen and US House Speaker Kevin McCarthy.

On Tuesday, in a speech opening a debate on China at the European Parliament, he said: "Taiwan is clearly part of our geostrategic perimeter to guarantee peace.

"It is not only for a moral reason that an action against Taiwan must necessarily be rejected. It is also because it would be, in economic terms, extremely serious for us, because Taiwan has a strategic role in the production of the most advanced semiconductors," he said. Borrell's comments come after French President Emmanuel Macron earlier this month argued that Europe should not be a

"follower" of the United States in the event of conflict with China over Taiwan.

Macron's comments, coming after a visit to China, sparked criticism from some politicians in both the United States and inside the European Union.

Shrinking allies

China claims Taiwan as its territory and has vowed to bring the island under its control one day, by force if necessary.

Earlier this month, Tsai went on a trip to Central America to solidify its remaining ties.

Only 13 countries to maintain formal diplomatic ties with Taiwan, most of which are small countries in Latin America and the Caribbean: Belize, Guatemala, Haiti, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines.

Honduras severed ties with Taipei in favour of Beijing last month.

It followed the footsteps of Nicaragua, El Salvador, the Dominican Republic, Panama, and Costa Rica in ditching Taiwan.

A few days ago, Paraguay's main opposition presidential candidate questioned the benefits of keeping relations with Taipei, comments that left Taiwan "perplexed." China demands that countries it has ties with must adopt its position on Taiwan.

EDITOR'S COMMENT: It is amazing how certain people climbed into top positions!

Latest Kevlar EXO fabric is lighter, more flexible and bulletproof

Source: <https://newatlas.com/materials/duPont-keVlar-exo-aramid-fiber/>

Apr 25 – DuPont has debuted a new version of its famous bulletproof Kevlar fabric called EXO at this year's United States Army Rangers' Best Ranger Competition at Fort Benning Georgia. The company says it is the most significant aramid fiber innovation in over 50 years with not only better ballistic protection, but it's also lighter, more flexible, and more heat resistant.

Mention Kevlar and it's likely to bring up images of bulletproof vests, but the material has many more applications. Blankets of it protect the International Space Station from micrometeorites, it reinforces composite boat hulls, is spun into cordage, woven into sails, formed into helmets and fire-resistant clothing, used as a substitute for asbestos, and turned into everything from hockey sticks to tennis rackets. Small wonder that 55 million tonnes of it under various names are produced worldwide every year. Technically, Kevlar is an aramid fiber, which is short for



aromatic polyamide – a synthetic polymer material formed from aromatic rings of six carbon atoms arranged along the axis of the fiber. Put simply, this makes the end result very strong, abrasion resistant, heat resistant, nonconductive, and non-inflammable under normal conditions.

According to DuPont, Kevlar EXO not only shows improved best-in-class ballistic protection over the previous versions, it is also lighter and more flexible, allowing soft protective vests made out of it to fit better and wear more comfortably. It's also heat resistant to up to 500 °C (932 °F) and is highly durable without a significant loss in performance after five years.

"We've spent over a decade developing, refining and perfecting Kevlar EXO, and the result is an industry altering platform that has catapulted our life protection capabilities to a whole new level," said Steven LaGanke, global business leader, DuPont Life Protection. "Developed and tested by leading materials experts at DuPont, Kevlar EXO offers never-before-seen ballistic and thermal performance while also providing a flexible and lightweight solution that empowers users to operate at peak performance. Whether for military members, law enforcement officers, private security or emergency responders, pound for pound, Kevlar EXO users can better manage energy output even during the most demanding physical tasks."



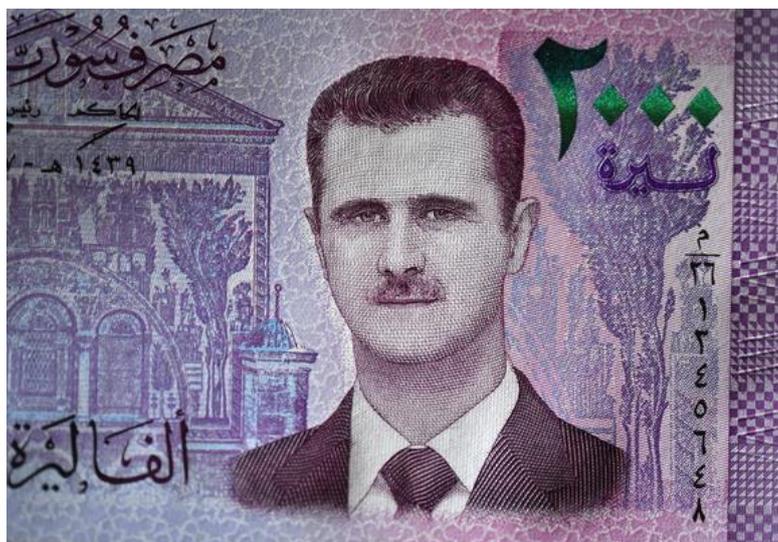
Bashar al-Assad on Path Toward Normalization Amid Absent U.S. Foreign Policy

By Benjamin Weinthal

Source: <https://www.meforum.org/64370/bashar-al-assad-on-path-toward-normalization-amid>

Apr 25 — The efforts of some key members of the Arab League this month to restore membership to the Syrian regime [after its 2011 suspension](#) over its mass killing of civilians has shined a new spotlight on the Biden administration's Middle East policy, according to regional experts.

Syria's dictator, President Bashar al-Assad, has waged a scorched-earth campaign against civilians and pro-democracy activists, resulting in [an estimated 500,000-plus deaths](#) and the use of [chemical warfare](#) to wipe out anti-regime Syrians.



"Today, Biden's mismanagement of Arab relationships manifests itself in the dam breaking on normalization with Assad. As for Assad, normalization comes now because of the sense that he won the civil war. The problem is that it is coming cost-free for the Syrian regime," Michael Rubin, a Middle East expert for the American Enterprise Institute, told Fox News Digital.

[A 2,000 Syrian lira bill with the likeness of dictator Bashar al-Assad, who has waged a scorched-earth campaign against civilians and pro-democracy activists](#)

Michael Rubin said, "Rather than bargain or impose for normalization, Biden is politically and diplomatically" absent.

He added that "Earlier Arab demands with regard to reforms and justice have fallen by the wayside. Biden's

maniacal bashing of Saudi Arabia over the murder of one former intelligence agent now comes at the expense of denying justice for millions of Syrians." A U.S. State Department spokesperson told Fox News Digital, "Our position is clear: We will not normalize relations with the Assad regime absent authentic progress towards a political solution to the underlying conflict. We continue to make this clear publicly and privately with partners." Last week, the North African country [Tunisia restored diplomatic relations](#) with Syria. Saudi Arabia is leading the push among the Arab



League members to bring Syria's regime in from the cold. The United Arab Emirates (UAE) restored diplomatic ties with Assad in 2018. The Syrian dictator visited Oman and the UAE this year in a thawing of relations with a country once viewed as an international pariah in the Arab world.

The Islamic Republic of Iran, the Lebanese terrorist movement Hezbollah, and Russia together provided the shock troops and military machinery that stopped the toppling of al-Assad's regime. Critics of the rapprochement between Arab countries and Syria's regime see a benefit for Iran to secure more influence and power in a volatile region.

The State Department spokesperson said, "Many Arab capitals have expressed a view that it's in their own interests as Arab states to return an Arab presence to Damascus and not to leave a vacuum for Iran to fill. We have stressed to regional partners engaging with the Syrian regime that credible steps to improve the humanitarian and security situation for Syrians should be front and center in any engagement, while also making clear that the core architecture of our sanctions remains firmly in place."

Emad Bouzo, a Syrian-American physician and political commentator on Syria, told Fox News Digital, "The current soft Arab policies towards the Iranian and the Syrian regimes may strengthen Iran in the short term, but it will not help it in the long term because of its corrupt and failed internal policies and the continued unrest inside of Iran."

He added, "Most Arab countries don't value the demands of the Syrian people for democracy as these countries themselves are undemocratic, and, therefore, most of these countries try to distance themselves from the Western, democratic governments and their concepts for the respect of human rights."

Qatar's Foreign Ministry spokesperson Majed Al-Ansari told the London-based Qatari daily newspaper Al-Quds Al-Arabi in late March that "at this stage, there is no Arab consensus to normalize [relations] with the regime." He added, "Signs do not point to any development in the Syrian arena. ... Doha's position is clear, stable and unaffected by [outside] responses, unless there is development within the Syrian arena." The Middle East Media Research Institute (MEMRI) [translated Al-Ansari's comments](#) to the paper. According to human rights groups, al-Assad's campaign to purge his country of opposition has created the worst international humanitarian crisis of this century.

The United Nations High Commissioner for Refugees (UNHCR) [notes on its website](#) that there are 6.8 million internally displaced people in Syria and 5.5 million Syrian refugees living in Turkey, Lebanon, Jordan, Iraq and Egypt, and 15.3 million people are "in need of humanitarian and protection assistance in Syria," the UNHCR wrote.

If Saudi Arabia succeeds in reintegrating Syria into the Arab League at the next meeting in May, it will be a severe setback for the U.S. and [the EU in connection with their sanctions](#) on Damascus.

Michael Rubin said, "There is an ironic tragedy to Biden. He entered office speaking about human rights, but the naivete, arrogance and stupidity of his top advisers have ensured his legacy will be that he has been the greatest disaster for human rights since Henry Kissinger. First, it was tens of thousands of Afghans who put their faith in and service with us but for whom Secretary of State Antony Blinken couldn't be bothered to expedite visas. Then there were the millions of Afghan women. The cost for Climate Envoy John Kerry's pursuit of China's signature of virtue-signaling climate change declarations is turning a blind eye to Uyghur genocide."

Al-Assad's alliance with American leading enemies – ranging from Iran's regime [to Russia](#) to Hezbollah – has prompted criticism of an allegedly aloof Biden administration.

Israeli Maj. Gen. Gershon Hacohen, a former commander of the Israel Defense Forces Northern Corps and a resident of the Golan Heights near the Syrian border, told Fox News Digital, "All the players in the Middle East recognize the weakness of the American presence in the region. The American strategy, as expressed in the National Security Strategy document of the White House, established a new order of priorities. In the first place, dealing with the competition with China in the Far East and across the Pacific Ocean; in the second place is Russia, where the U.S. expects NATO and European countries to lead the fight against Russia with direct and indirect aid to Ukraine."

Hacohen, a member of Israel Defense and Security Forum, added, "The Middle East was hardly even mentioned except for the administration's support of the two-state solution. The move by Saudi Arabia to renew relations with Iran caused the significant regional turn, including the renewal of relations with Syria and negotiations with the Houthis in Yemen and the terrorist organization Hamas. When it comes to existential strategic interests, nobody really cares if Assad murdered half a million civilians. That has long since been forgotten."

For Israel, America's most important regional ally, Hacohen mapped out a gloomy future: "The bottom line is that the state of Israel finds itself isolated like it has not been for decades, and this in itself accelerates the processes of joining regional alliances against Israel."

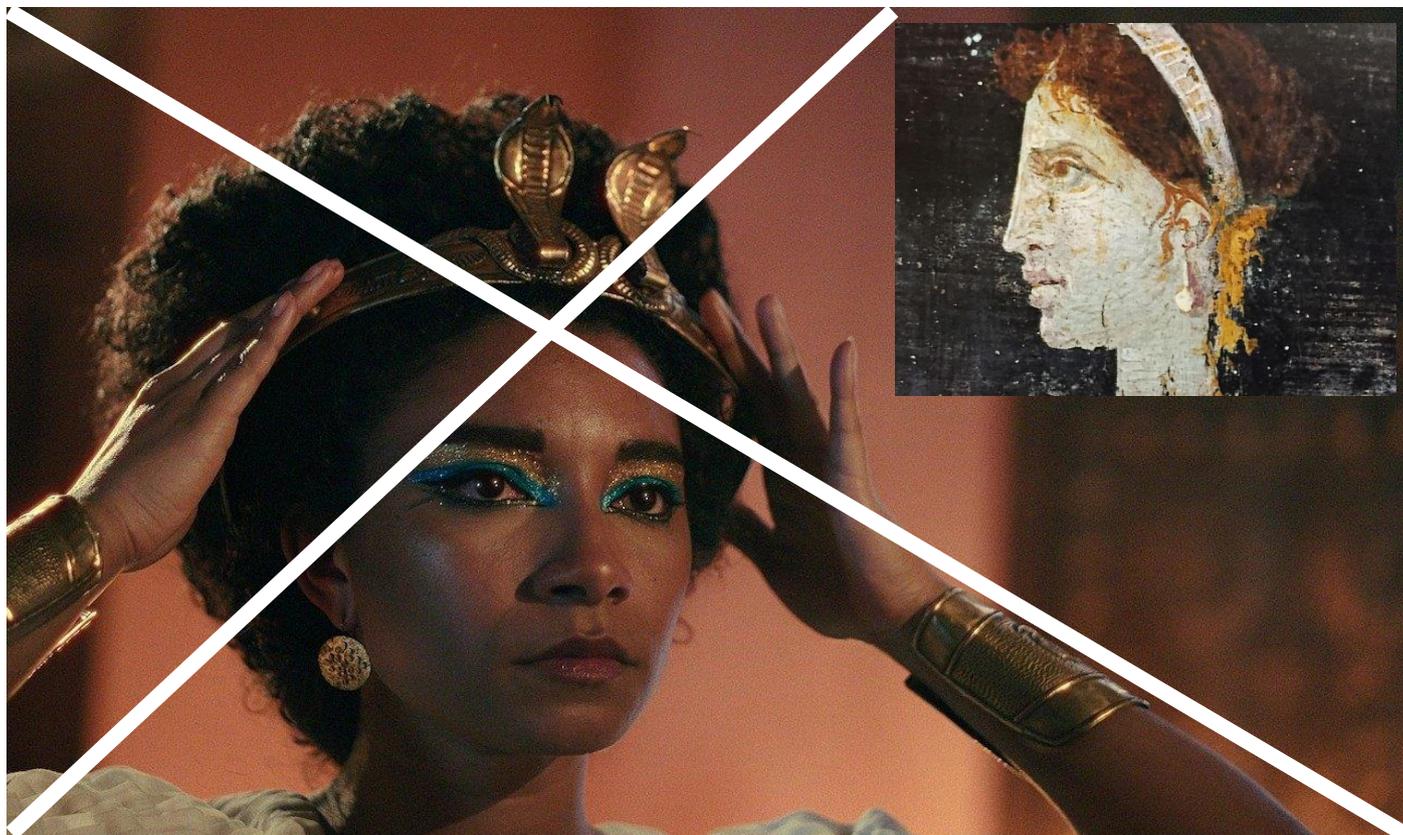
Benjamin Weinthal, a Middle East Forum writing fellow, reports on Israel, Iran, Syria, Turkey and Europe for Fox News Digital.



Cleopatra was Greek Says Egypt in Response to Netflix Controversy

By Alexander Gale

Source: <https://greekreporter.com/2023/04/27/cleopatra-greek-egypt-netflix/>



Cleopatra as depicted by actress Adele James in the Netflix series “Queen Cleopatra”. Credit: Netflix

Apr 27 – On Thursday, the Egyptian Secretary General of the Supreme Council of Archeology weighed in on the ongoing controversy surrounding the Netflix documentary “Queen Cleopatra”.

Dr. Mustafa Waziri, the Secretary General, was highly critical of the decision to portray Cleopatra VII Philopator as being black, and highlighted the weight of the historical evidence confirming that she was of Greek descent.

Credit: Egyptian Ministry of Tourism and Antiquities

The documentary, which is produced by Jada Pinkett Smith and stars Adele James as [Cleopatra](#) has been the subject of intense criticism and derision since the trailer was unveiled two weeks ago. Egyptians in particular have decried the documentary as a blatant example of historical revisionism and cultural insensitivity.

Egypt responds to Netflix “Queen Cleopatra” controversy

The Egyptian Ministry of Tourism and Antiquities issued a lengthy [statement](#) on social media clarifying their position on the ongoing drama surrounding the decision of Netflix to portray Cleopatra as a woman of black African descent.



Ministry of Tourism and Antiquities

وزارة السياحة والآثار

4 h ·

27 April 2023

Regarding Queen Cleopatra's movie to be released on Netflix :-

- The Secretary General of the Supreme Council of Archeology confirms that Queen Cleopatra was light-skinned and Hellenic features (Greek)
- Queen Cleopatra's works and statues are the best evidence of her true features and Macedonian origins



Historicity of the documentary

The statement issued by the Egyptian Ministry of Tourism and Antiquities also included the comments of Dr. Nasser Mekkawy, Head of the Egyptian Department of Archaeology at Cairo University.

“Queen Cleopatra’s appearance in this film in this body competes with the simplest historical facts and the writings of historians such as Plutarchus and Diocassius,” said the Egyptologist.

“Queen Cleopatra VII descended from an ancient Macedonian dynasty that ruled Egypt for nearly 300 years, founded by King Ptolemaios I (Ptolemy), a Macedonian leader of the army of [Alexander the Great](#), to which the state of Egypt came after the death of Alexander and founded the Ptolemaic family,” Mekkawy said.



An ancient coin depicting Cleopatra VII. Credit: Ministry of Tourism and Antiquities / Facebook

In the statement, Mekkawy continued to explain how the [Ptolemaic dynasty](#), to which Cleopatra belonged, maintained their Greek heritage over the course of several generations until their rule over Egypt came to

an end in 30 BC. In fact, the Ptolemies practiced sibling marriage and incest in order to maintain the “purity” of their bloodline.

Mekkawy was also keen to stress the differentiation that exists between the ancient Egyptians and Sub-Saharan Africans, saying that “Biological anthropology studies and DNA studies conducted on ancient Egyptian mummies and bones confirmed that Egyptians do not bear the features of South-Sahara Africans, whether in the form of the skull, genital anthropology, or DNA”.

Assad Has Won: Dealing with the Devil We Know

By Hussein Aboubakr Mansour

Source: <https://www.meforum.org/64380/assad-has-won-dealing-with-the-devil-we-know>

Syrian president Bashar al-Assad (right) pictured with Iranian Supreme Leader Ayatollah Ali Khamenei (left). (YouTube screenshot)



Apr 27 – The profound brutality that Syrian President Bashar Assad exhibited toward demonstrators during the 12 years since the eruption of the Arab Spring led him to be shunned by most of his Arab neighbors. Arab efforts to reintegrate Assad's Syria back into the fold of Arab states have gained significant momentum for several years and are getting closer to fulfillment. All major U.S. Arab allies, with Qatar's notable exception, have been steadily moving away from the U.S. stance and toward acceptance of Assad's victory in the civil war. It is important for the U.S. and Israel to view the reintegration of Syria as the likely outcome of current geopolitical shifts despite their wishes and thus to start calculating the opportunities and challenges that may emerge from such a new reality. Abhorrent as it may sound, Assad Won.

The Anti-Assad Camp Splinters

Shortly after the outbreak of the Syrian Civil War in 2011, Syria became a field in which the regional geopolitical alignments were drawn most sharply, pulling in all kinds of political actors. The main fault line was drawn between support for the regime of Bashar Assad, a security apparatus dominated by Alawite leadership, and support for the Syrian opposition, a diverse incohesive body of political movements and militias opposing Assad. Russia, Iran, and Iranian proxy Hezbollah quickly rallied to support Assad and protect his rule regardless of humanitarian cost. The United States and its allies, namely, Saudi Arabia, Turkey, Qatar, and the United Arab Emirates, rallied to support the opposition hoping to overthrow Assad and end the brutal war. The former camp largely kept its posture and unity, while the latter coalition eventually fragmented into competing interests. The U.S. had misgivings about the heavy presence of al-



Qaeda and other Jihadist groups among the opposition forces it supported, ultimately shifting its focus into countering the ISIS mission with the support of Kurdish troops.

Qatar insisted on continuing support for Jihadist and Islamist groups leading to a regional conflict with the anti-Islamist Arab camp led by Saudi Arabia and the Emirates. The latter two powers also developed misgivings about the American reluctance and lack of commitment to Arab interests leading to the significant empowerment of Iran and its allies as well as the rise of global jihadist nihilism, which they saw as facilitated by American and European incompetence. With Russian and Iranian support, Assad persevered.

The Failed State of Syria

Syria, which emerged from this prolonged conflict, is a shell of a country that contains nothing but the embodiment of regional and international failures paid for by millions of innocent Syrians. The country is fragmented between a Damascus corridor ruled by the Iranian-Russian-backed Assad regime, with its peripheries serving as operation grounds for Iranian militias and their activities against Israel as well as the former's retaliation; a Kurdish no-fly zone protected by U.S. troops in which the Kurds are utterly dependent on American support for their security and livelihood; a Turkish enclave which is at odds with both former territories; and finally, various regions controlled by the remaining fragmented opposition groups and terrorist organizations.

This regional pit of dysfunction and hopelessness is also the prison of 16 million Syrians who are left to suffer violence, isolation, poverty, and natural disasters. In view of such a reality, many came to view the U.S. sanctions against Assad to be nonsensical. Assad and his generals are living posh opulent lives in their palaces protected by Iran and Russia and funded by the amphetamine trade of Captagon pills that is now Syria's largest export while the Syrian people are the ones paying the price of everyone's failure. This is very briefly the picture that traditional U.S. Arab allies, namely Saudi Arabia and the United Arab Emirates, came to see in Syria. Not to mention how from the point of view of their interests, Syria became a large hub of narcotic trade that is threatening their population, an Iranian backwater, and a breeding ground for Jihadism.

The Interests of the Gulf States

While these Arab powers have no delusion about the destructive role Qatari and Iranian intervention played, they seem to hold the United States primarily responsible for the ultimate failure and dysfunction, a calculation that is central to their new strategic calculus that seeks to expand their foreign policy alliances beyond Washington. They view Assad, still young and likely to last another 20 years in office, as someone with nothing left to lose and who could sit happily in his palace in Damascus, letting his country become a large amphetamine lab and posing a serious hazard to Arab growth visions and plans for the region. Meanwhile, the Syrian people will remain isolated and unable to participate in the new economic visions of Riyadh and Abu Dhabi.

The opposition to Assad, simply put, no longer serves any Arab Gulf interests. Ultimately, along with the new calculus with Iran and China, this led Arab states, and even Turkey, to abandon the firm U.S. stance against Assad and seek his normalization, given he provided some concessions to the opposition.

The push for reintegration is led by Saudi Arabia, Jordan, and Syria and is already advanced enough for Assad to receive a presidential welcome in Abu Dhabi and receive the Saudi foreign minister in his palace in Damascus. The bid they launched to re-admit Syria into the Arab League was opposed by Qatar, which remains a patron of the Syrian opposition. Yet the Qatari rejection came with the caveat that it will stand as long as there are no concessions to the oppositions, which leaves the possibility open for the Qataris to agree, given their clients in Syria are protected. Even Turkey's Erdogan, who is now more fearful of a Kurdish state than he is of Assad, announced that he is willing to meet with Assad and discuss the future relations between the two countries.

The U.S. and Israel Are Left Isolated

This ultimately leaves the U.S., and by extension, Israel, isolated from the current geopolitical shifts. Inside Washington, the foreign policy establishment seems to be divided on what should be done. Some officials are generally willing to consider the Arab efforts, given they require serious concessions from Assad, while others are completely opposed to the possibility.

Regardless of how one morally feels about the unfortunate situation, it should be clear by now that Assad won, and we are the ones who have to deal with it. Arab states will help Assad reintegrate regionally and perhaps internationally, and it's better for the U.S. to be part of the discussion in order to help shape the demands in a way conducive to both American and Israeli interests. If the U.S. continues to oppose this, it will happen anyway, however, without any regard for American or Israeli input. The U.S. must face the reality that it cannot support the Kurds the way it is currently doing forever, and failing to guarantee Kurdish interests in a new arrangement will ultimately hurt the Kurds and deal the last blow to any remnant of American credibility in the region. Moreover, Israel has serious security interests in Syria, given the heavy presence of IRGC forces and militias. These security needs are becoming increasingly pressing given the rising prospects of



a conflict with Iran over its nuclear program and an Arab wish to stay away from any such conflict leaving Israel to shoulder the cost alone.

Recognizing Reality

These and other calculations should push Washington to swallow its pride and start talking to Israel and its Arab allies about how best to shape the regional demands to be put in front of Assad in exchange for regional acceptance. This should not just be regarded as a foreign policy failure but a recognition of a bad situation that is in need of creative reorganization.

This does not mean that there are no risks in such a possibility. Assad, after all, committed crimes against his own people and oversaw some of the worst atrocities in recent history. Washington is right to view an acceptance of Assad as a major blow to international norms that the international community worked for a long time to establish. Moreover, there is no guarantee that rehabilitating Assad will prevent a repetition of the Saddam scenario where he reproduces his Baathist state in even more repressive forms or that he will be able to control Iranian activities in Syrian territories successfully. These are genuine risks that Washington should push Arab states not to undermine. Either way, Washington is better involved than absent in a region that is increasingly willing to go its own way.

Hussein Aboubakr Mansour is a fellow at the Middle East Forum and director of the Program for Emerging Democratic Voices from the Middle East at the Endowment for Middle East Truth (EMET).

Is stupidity more dangerous than chemical weapons?

A Massachusetts student is 'expelled from school' for wearing a shirt that reads 'there are only two genders'

Source: <https://nybreaking.com/a-massachusetts-student-is-expelled-from-school-for-wearing-a-shirt-that-reads-there-are-only-two-genders/>

May 01 – A Massachusetts high school student claims he was expelled from school for wearing a T-shirt that said there are only two genders.

Liam Morrison, 12, told the Middleborough School Council on April 13 how his father had to pick him up from the John T. Nichols Jr. the previous month. Middle School when he refused to take off his T-shirt that read "There are only two genders."

He said school officials told him other students complained about feeling "unsafe" and "disrupting education."

But by forcing him to take his shirt off, Morrison claimed the school district was undermining his right to free speech.

DailyMail.com has contacted Middleborough Public Schools for comment.

Liam Morrison, 12, claimed at a meeting of the Middleborough Public School Council on April 13 that he was expelled from class for wearing a shirt that read 'There are only two genders' a month earlier

Speaking to the school board, Morrison said he was taken out of gym class on March 21 to meet with school officials, who told him people were complaining about his T-shirt and said they felt "unsafe."

"They told me I wasn't in trouble, but I definitely felt like I was," Morrison said of the experience. "I was told to take my shirt off before I could return to class. When I kindly told them I didn't want that, you called my dad.

"Fortunately, my father, who supported my decisions, came to pick me up.

"What did my shirt say?" he continued. "Five simple words: 'There are only two genders.' Nothing harmful. Nothing threatening. Just a statement that I think is a fact.' He added that he didn't go to school that day to "hurt feelings or cause trouble." But school officials told him his shirt was "aimed at a protected class." "Who is this protected class?" Morrison asked. "Are their feelings more important than my rights." "I'm not complaining when I see Pride flags and diversity posters all over the school. Do you know why? Because others are entitled to their beliefs just like me," he said. Morrison also said he was told "the shirt was a



disruption to learning,” but “no one got up and stormed out of the classroom.” No one burst into tears. I’m sure I would have noticed if they did.

“I experience disruptions in my learning every day,” he noted. ‘Kids showing off in class are a disturbance, but nothing is being done about it. Why do the rules apply to one and the other?’

Morrison said John T. Nichols Jr Middle School officials told him the shirt made other students feel “unsafe” and that it “interfered with learning.”

He said he wanted to draw the attention of the school board to the matter. The school committee is pictured here at its April 13 meeting

The preteen added that “not one person” told him directly that they were bothered by the words on his shirt, and in fact other students told him they supported the message.

But by kicking him out of class, Morrison said, he felt like the high school was telling him it wasn’t okay for him to have a dissent.

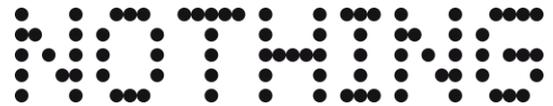
“I learned a lot from this experience,” he said. ‘I have learned that many other students share my opinion. I’ve learned that adults don’t always do the right thing or make the right decisions.

“I know I have a right to wear a shirt with those five words,” Morrison continued. “Even at the age of 12, I have my own political opinion and I have a right to express that opinion. Even at school. This right is called the First Amendment to the Constitution.”

“My hope by being here tonight is to draw the attention of the school board to this issue,” he said. “I hope you stand up for the rest of us so we can express ourselves without getting kicked out of class.

“Next time, maybe it’s not just me,” he concluded. “Perhaps more will decide to speak out soon.”

What the Iraq War can teach the US about avoiding a quagmire in Ukraine – 3 key lessons



By Patrick James

Source: <https://news.yahoo.com/iraq-war-teach-us-avoiding-120721205.html>

May 03 – Leaked Pentagon papers showed in early April 2023 that the U.S. is allegedly following the inner workings of Russia’s intelligence operations and is also [spying on Ukraine](#), adding a new dimension to the United States’ involvement in the Ukraine war. While the U.S. has [not actually declared war](#) against Russia, the documents show that it continues to support Ukraine with [military intelligence](#) as well as [money and weapons](#) against the Russian invasion.

There is [no end in sight](#) to the war between Ukraine and Russia – nor to U.S. involvement. While it is far from the first time that the U.S. became a third party to war, this scenario brings the Iraq War, in particular, to mind.

I am a [scholar of international relations and an expert on international conflicts](#). A comparison with the Iraq War, I believe, offers a useful way to look at the case of Ukraine. The Iraq and Ukraine wars have notable differences from a U.S. foreign policy perspective – chiefly, thousands of American soldiers died fighting in Iraq, while the U.S. does not have any ground troops in Ukraine. But assessing the Iraq War, and its long aftermath, can still help articulate concerns about the United States’ getting involved in intense violence in another faraway place.

Here are three key points to understand.

1. Intervention doesn’t guarantee success

Around the time former President George W. Bush announced the U.S. would invade Iraq in 2003, Osama bin Laden, the wealthy Saudi Arabian Islamist who orchestrated the Sept. 11, 2001, attacks, [remained at large](#). While not obviously connected, the fact that bin Laden continued to evade the U.S. contributed to a general sense of anger at hostile regimes. In particular, Saddam Hussein defied the U.S. and its allies.

The Iraqi dictator [continued to evade inspections](#) by the United Nations watchdog group the International Atomic Energy Agency, giving the impression that he had weapons of mass destruction. This proved maddening to the U.S. and its allies as [the cat and mouse game dragged on](#). Bush reportedly had intense concerns about [whether Saddam could use alleged weapons](#) of mass destruction to attack the U.S., causing even more harm than 9/11 did.

A U.S.-led coalition of countries that included the United Kingdom and Australia invaded Iraq in March 2003. The “[coalition of the willing](#),” as it became known, [won a quick victory](#) and toppled Saddam’s regime.

Bush initially enjoyed a [spike in public support](#) immediately after the invasion, but his polls shortly after experienced a [downward trajectory](#) as the war dragged on. However, the U.S. showed very little



understanding of the politics, society and other important aspects of the country that it had taken the lead in occupying and then trying to rebuild.

Many decisions, most notably [disbanding of the Iraqi Army](#) in May 2003, revealed poor judgment and even outright ignorance because, with the sudden removal of Iraqi security forces, intense civil [disorder ensued](#).

Disbanding the army caused insurgent militant forces to come out into the open. The fighting intensified among different Iraqi groups and escalated into [a civil war](#), which ended in 2017.

Today, Iraq continues to be politically unstable and is [not any closer](#) to becoming a democracy than it was before the invasion.

2. Personal vendettas cannot justify a war

During his 24-year regime, Saddam [lived an extravagant lifestyle](#) coupled with oppression of civilians and [political opponents](#). He engaged in [genocide of Kurdish people](#) in Iraq. Saddam was finally [executed by his own people in 2006](#), after U.S. forces captured him. Putin is equally notorious and even more dangerous. He has a long track record of [violent oppression](#) against his people and has benefited from leading one of the world's [most corrupt governments](#).

He also actually possesses weapons of mass destruction and has [threatened multiple times to use them](#) on foreign countries. [Saddam](#) and Putin have also both been the [direct targets](#) of U.S. political leaders, [who displayed a fixation](#) on toppling these foreign adversaries, which [was evident long before](#) the U.S. actually became involved in the Iraq and Ukraine wars.

The United States' support for Ukraine is understandable because that country is fighting a defensive war with [horrific civilian casualties](#). Backing Ukraine also makes sense from the standpoint of U.S. national security – it helps push back against an expansionist Russia that increasingly [is aligned with China](#).

At the same time, I believe that it is important to keep U.S. involvement in this war within limits that reflect national interests.

3. It can divide the country

The Iraq War resulted in a rise in intense [partisanship in the U.S. over foreign policy](#). In addition, recent opinion polls about the Iraq War [show that most Americans do not think that the invasion](#) made the U.S. any safer.

Now, the U.S. faces rising public skepticism about getting involved in the Ukraine war, another [expensive overseas commitment](#). Polls released in January 2023 show that the percentage of Americans who [think the U.S. is providing too much aid](#) to Ukraine has grown in recent months. About 26% of American adults said in late 2022 that the U.S. is [giving too much](#) to the Ukraine war, according to Pew Research Group. But three-fourths of those polled still supported the U.S. engagement.

The average American [knows little to nothing](#) about Iraq or Ukraine. Patience obviously can grow thin when U.S. support for foreign wars becomes ever more expensive and the threat of retaliation, even by way of tactical nuclear weapons, remains in the realm of possibility. Aid to Ukraine is likely to become embroiled in the rapidly escalating conflict in Washington over the debt ceiling.

On the flip side, if the U.S. does not offer sufficient support for Ukraine to fend off Russian attacks and maintain its independence, adversaries such as Russia, China and Iran may feel encouraged to be aggressive in other places.

I believe that the comparison between the wars in Iraq and Ukraine makes it clear that U.S. leadership should clearly identify the underlying goals of its national security to the American public while determining the amount and type of support that it will give to Ukraine. While many people believe that Ukraine deserves support against Russian aggression, current policy should not ignore past experience, and the Iraq War tells a cautionary tale.

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Lithuania Legalizes Border Pushbacks

By Lucia Schulten

Source: <https://www.homelandsecuritynewswire.com/dr20230503-lithuania-legalizes-border-pushbacks>



May 03 – A new law comes into effect in Lithuania on May 3 that legalizes so-called pushbacks. As Jurate Juskaite, the director of the Lithuanian Centre for Human Rights explains: **“Border guards will be allowed to legally push back irregular migrants, and no independent and individual evaluation [as to whether] these people need asylum or not will be done.”**

It enshrines in law the Lithuanian authorities' practice of sending migrants back over the border immediately after they have crossed. Lithuania has already been doing this since the summer of 2021, when there was a [sudden increase](#) in the number of migrants crossing into the Baltic country from the authoritarian state of Belarus. At the time, the Lithuanian government saw itself as under attack from the Belarusian ruler, Alexander Lukashenko.



The EU also described the situation as a “[hybrid attack](#),” and suspected an attempt to destabilize the bloc. Many more migrants were also crossing from Belarus to Poland and Latvia. The accusation was that people from third countries were being lured to Belarus in order to get across the external border into the EU — and that the Belarusian state was helping them do it.

The Lithuanian public broadcaster LRT reports that the new law is intended for application in exceptional circumstances. According to the country’s Interior Ministry, it will also make a clear distinction between natural and instrumentalized migration.

Deployment of Civilian Border Guards

Lithuania has an almost 680-kilometer (423-mile) border with Belarus. It has responded to the situation by installing a border fence along approximately 550 kilometers of that length. Four meters high and equipped with barbed wire, the fence is intended to prevent migrants from entering the European Union illegally. In future, under the new law, the border will also be patrolled by so-called civilian border guards.

Nongovernmental organizations are highly critical of this. The human rights activist Jurate Juskaite says the entry threshold for this job is very low. There is concern about the fact that, under the new law, these border guards are allowed to use force.

Julia Zelvenska is the head of legal support at the European Refugee Council, an umbrella organization of 110 nongovernmental organizations. She warns that this will normalize the use of force, and will lead to migrants being criminalized.

Lithuania is not the only EU country with an arrangement like this. Zelvenska says [Hungary](#) also employs civilian “border hunters” — and Hungarian law is regarded as the model for Lithuania’s.

On Friday, a European Commission spokesperson pointed out that current EU law contains provisions on border security. These include a rule that border guards must be properly trained, specialized professionals.

Lithuania’s Law Is Not Unprecedented

The accusation that people are being pushed back across the EU’s external borders is not a new one. NGOs and journalists have already documented many instances of this happening. Fabrice Leggeri, the former head of the EU border agency, Frontex, [resigned last year](#) over media reports that the agency itself was involved in pushbacks.

The accusations are often accompanied by [allegations of physical abuse](#). The Council of Europe’s Committee for the Prevention of Torture (CPT) is one of the organizations that [has reported on this](#). It issued a press release that primarily described people being beaten — with slaps, fists and batons — when they were arrested by the police, border guards or coast guards. Will legalizing pushbacks open the floodgates for this sort of abuse?

Zelvenska points out that similar measures had already been applied before the introduction of the Lithuania’s new law. “In general, this was quite a widespread situation at some point in various EU member states,” she explains, “when they adopted usually short-term temporary measures announcing a state of emergency, also announcing that there will be some sort of limitations to the right of asylum.” She cites the [example of Greece](#). According to the Germany-based nongovernmental aid organization Pro Asyl, a rudimentary form of such regulations is also in place in Poland and Hungary.

EU Border Protection Must Comply with Fundamental Rights

Last week, a spokesperson for the European Commission said it was currently examining the law, which has not yet come into force, and was in close contact with the Lithuanian authorities. Concerning pushbacks, the Commission referred to its position that border protection must always be carried out in full compliance with fundamental rights.

Karl Kopp, the director of European affairs at Pro Asyl, doubts that the European Commission is fulfilling its task of ensuring that fundamental rights are protected. “As the guardian of the Treaties, the European Commission is obliged to enforce EU rights, the Charter of Fundamental Rights — to monitor, and also to impose sanctions when violations occur,” he says. “As to whether it is fulfilling this role — we have doubts.” Kopp is critical of the Commission. He says it lets a lot of things slide, and is failing to impose sanctions for human rights violations.

Border Officials to Make Case-by-Case Decisions?

The European Court of Justice in Luxembourg has already had to address Lithuanian asylum rules, last year. In a ruling on the state-of-emergency legislation in force at the time, the court made clear that it is a contravention of EU law if the imposition of a state of emergency effectively means that migrants have no access to any asylum procedure. Along with the possible use of force during pushbacks, denial of a formal asylum procedure is the other particularly difficult issue.

Lithuanian MPs have said the new regulation makes legal provision for border guards to evaluate cases on an individual basis, and to make decisions based on that, says Juskaite. However, in her view, border guards are not qualified to make such a decision. “We saw children being pushed out; we saw people who,



during winter time, [were] pushed back to the woods with no shoes. We saw people who died in the forest in Lithuania,” the human rights activist told DW.

Council of Europe Says Pushbacks Must Stop

Last Tuesday, Lithuania’s interior minister, Agne Bilotaite, said the country has to defend itself. The news agency AFP quoted the conservative politician as saying: “When it comes to national security and human rights, there are [no easy solutions](#), but also there are no alternatives.” Furthermore, the Interior Ministry claims to have intelligence that Belarus is negotiating an arrangement for new direct flights from Iran and Iraq. Justifications like these are likely to fall on deaf ears at the Council of Europe. In late March, the Committee for the Prevention of Torture called on European governments to end pushbacks, in particular at the land and sea borders of the EU. CPT President Alan Mitchell pointed out that even the complex situation at the border did not mean states could ignore their human rights obligations — and repeated that pushbacks are illegal.

EU states are required to act in accordance with the European Convention on Human Rights, which is overseen by the European Court of Human Rights in Strasbourg. According to Juskaite, it seems that, as a first step, Lithuanian NGOs intend to apply to this court and sue Lithuania there. They will also report incidents to other international bodies, such as the United Nations.

In principle, the European Commission could initiate infringement proceedings as well, if it considers that the new Lithuanian regulations constitute a violation of EU law. Right now, though, the Commission is presumably still assessing the situation.

EDITOR’S COMMENT: There is no such thing as “*irregular migrants*”! Either you have papers (legal immigrant) or climb over the fence with no papers (illegal immigrant). It is time to stop the hypocrisy and afraid of words. It is time for the EU to stop being allergic to countries that care about their citizens first and above all.

America’s Bad Bet on India

By Ashley J. Tellis

Source: <https://www.foreignaffairs.com/india/americas-bad-bet-india-modi>

May 01 – For the past two decades, Washington has made an enormous bet in the Indo-Pacific—that treating India as a key partner will help the United States in its geopolitical rivalry with China. From George W. Bush onward, successive U.S. presidents have bolstered India’s capabilities on the assumption that doing so automatically strengthens the forces that favor freedom in Asia. The administration of President [Joe Biden](#) has enthusiastically embraced this playbook. In fact, it has taken it one step further: the administration has launched an ambitious new initiative to expand India’s access to cutting-edge technologies, further deepened defense cooperation, and made the Quad (Quadrilateral Security Dialogue), which includes Australia, India, Japan, and the United States, a pillar of its regional strategy. It has also overlooked India’s democratic erosion and its unhelpful foreign policy choices, such as its refusal to condemn Moscow’s ongoing aggression in Ukraine. It has done all of this on the presumption that New Delhi will respond favorably when Washington calls in a favor during a regional crisis involving China. Washington’s current expectations of [India](#) are misplaced. India’s significant weaknesses compared with China, and its inescapable proximity to it, guarantee that New Delhi will never involve itself in any U.S. confrontation with Beijing that does not directly threaten its own security. India values cooperation with Washington for the tangible benefits it brings but does not believe that it must, in turn, materially support the United States in any crisis—even one involving a common threat such as China. The fundamental problem is that the United States and India have divergent ambitions for their [security](#) partnership. As it has done with allies across the globe, Washington has sought to strengthen India’s standing within the liberal international order and, when necessary, solicit its contributions toward coalition defense. Yet New Delhi sees things differently. It does not harbor any innate allegiance toward preserving the liberal international order and retains an enduring aversion toward participating in mutual defense. It seeks to acquire advanced technologies from the United States to bolster its own economic and military capabilities and thus facilitate its rise as a great power capable of balancing China independently, but it does not presume that American assistance imposes any further obligations on itself. As the Biden administration proceeds to expand its investment in India, it should base its policies on a realistic assessment of Indian strategy and not on any delusions of New Delhi becoming a comrade-in-arms during some future crisis with Beijing.



Fast friends

For most of the [Cold War](#), India and the United States did not engage in any serious conversations on national defense, as New Delhi attempted to escape the entanglements of joining either the U.S. or the Soviet bloc. The two countries' security relationship only flourished after Bush offered India a transformative civil nuclear agreement.

Thanks to that breakthrough, U.S.-Indian security cooperation today is breathtaking in its intensity and scope. The first and most visible aspect is defense consultations. The two countries' civilian leaders, as well as their bureaucracies, maintain a regular dialogue on a variety of topics, including China policy, India's procurement of advanced U.S. military technologies, maritime surveillance, and undersea warfare. These conversations vary in quality and depth but are critical for reviewing strategic assessments, defining the parameters of desired cooperation, and devising tools for policy implementation. As a result, the United States and India work together in ways that would have been unimaginable during the Cold War. For example, they cooperate to monitor China's economic and [military activities](#) throughout the wider Indian Ocean region and have recently invested in mechanisms to share near-real-time information about shipping movements in the Indo-Pacific region with other littoral states.

A second area of success has been military-to-military collaboration, much of which takes place outside public view. The programs for senior officer visits, bilateral or multilateral military exercises, and reciprocal military training have all expanded dramatically during the past two decades. High-profile exercises most visibly exemplify the scale and diversity of this expanded relationship: the annual Malabar exercises, which bring together the U.S. and Indian navies, have now expanded to permanently include Japan and Australia; the Cope India exercises provide an opportunity for the U.S. and Indian air forces to practice advanced air operations; and the Yudh Abhyas series involves the land forces in both command post and field training activities.

Finally, U.S. firms have enjoyed notable success in penetrating the Indian defense market. India's military has gone from having virtually no U.S. weapons in its inventory some two decades ago to now featuring American transport and maritime aircraft, utility and combat helicopters, and antiship missiles and artillery guns. U.S.-Indian defense trade, which was negligible around the turn of the century, reached over \$20 billion in 2020.

But the era of major platform acquisitions from the United States has probably run its course. U.S. companies remain contenders in several outstanding Indian procurement programs, but it seems unlikely that they will ever enjoy a dominant market share in India's defense imports. The problems are entirely structural. For all of India's intensifying security threats, its defense procurement budget is still modest in comparison with the overall Western market. The demands of economic development have prevented India's elected governments from increasing defense expenditures in ways that might permit vastly expanded military acquisitions from the [United States](#). The cost of U.S. defense systems is generally higher than that of other suppliers because of their advanced technology, an advantage that is not always sufficiently attractive for India. Finally, New Delhi's demand that U.S. companies shift from selling equipment to producing it with local partners in India—requiring the transfer of intellectual property—often proves to be commercially unattractive, given the small Indian defense market.

India goes it alone

While U.S.-Indian security cooperation has enjoyed marked success, the larger defense partnership still faces important challenges. Both nations seek to leverage their deepening ties to limit China's assertiveness, but there is still a significant divide in how they aim to accomplish that purpose.

The U.S. goal in military-to-military cooperation is interoperability: the Pentagon wants to be able to integrate a foreign military in combined operations as part of coalition warfare. India, however, rejects the idea that its armed forces will participate in any combined military operation outside of a [UN](#) umbrella. Consequently, it has resisted investing in meaningful operational integration, especially with the U.S. armed forces, because it fears jeopardizing its political autonomy or signaling a shift toward a tight political alignment with Washington. As a result, the bilateral military exercises may improve the tactical proficiency of the units involved but do not expand interoperability to the level that would be required in major combined operations against a capable adversary.

India's view of military cooperation, which emphasizes nurturing diversified international ties, represents a further challenge. India treats military exercises more as political symbols than investments in increasing operational proficiency and, as a result, practices with numerous partners at varying levels of sophistication. On the other hand, the United States emphasizes relatively intense military exercises with a smaller set of counterparts.

India's priority has been to receive American assistance in building up its own national capabilities so it can deal with threats independently. The two sides have come a long way on this by, for example, bolstering India's intelligence capabilities about Chinese military activities along the Himalayan border and in the Indian Ocean region. The existing [arrangements](#) for intelligence sharing are formally structured for reciprocity, and New Delhi does share whatever it believes to be useful. But because U.S. collection capabilities are so superior, the flow of usable information often ends up being one way.



Under Prime Minister [Narendra Modi](#), India has increasingly focused on defense industrial cooperation as the key driver of its security partnership with the United States. Its underlying objective is to secure technological autonomy: ever since its founding as a modern state, India has sought to achieve mastery over all critical defense, dual-use, and civilian technologies and, toward that end, built up large public sector enterprises that were intended to become global leaders. Because this dream still remains unrealized, New Delhi has now prioritized Washington's support for its defense industrial ambitions in tandem with similar partnerships forged with France, Israel, Russia, and other friendly states.

For over a decade, Washington has attempted to help India improve its defense technology base, but these efforts have often proved futile. During President [Barack Obama's](#) administration, the two countries launched the Defense Trade and Technology Initiative, which aimed to promote technology exchange and the coproduction of defense systems. Indian officials visualized the initiative as enabling them to procure many advanced U.S. military technologies, such as those related to jet engines, surveillance and reconnaissance platforms, and stealth capabilities, so that they could be manufactured or codeveloped in India. But Washington's hesitation about clearing such transfers was matched by U.S. defense firms' reluctance to part with their intellectual property and make commercial investments for what were ultimately meager business opportunities.

Washington's big bet

The Biden administration is now going to great lengths to reverse the failure of the Defense Trade and Technology Initiative. Last year, it announced the Initiative on Critical and Emerging Technology, which aims to fundamentally transform cooperation between the two countries' governments, businesses, and research entities pertaining to technology development. This endeavor encompasses a wide variety of fields, including semiconductors, space, [artificial intelligence](#), next-generation telecommunications, high-performance computing, and quantum technologies, all of which have defense applications but are not restricted to them.

For all its potential, however, the Initiative on Critical and Emerging Technology does not guarantee any specific outcomes. The U.S. government can make or break the initiative, as it controls the release of the licenses that many joint ventures will require. Although the Biden administration seems inclined to be more liberal on this compared with its predecessors, only time will tell whether the initiative delivers on India's aspirations for greater access to advanced U.S. technology in support of Modi's "Make in India, Make for World" drive, which aims to transform India into a major global manufacturing hub that could one day compete with, if not supplant, China as the workshop of the world.

The bigger question, however, is whether Washington's generosity toward India will help accomplish its strategic aims. During the [Bush](#) and Obama administrations, U.S. ambitions centered largely on helping build India's power in order to prevent China from dominating Asia. As U.S.-China relations steadily deteriorated during the Trump administration—when Sino-Indian relations hit rock bottom as well—Washington began to entertain the more expansive notion that its support for New Delhi would gradually induce India to play a greater military role in containing China's growing power.

There are reasons to believe it will not. India has displayed a willingness to join the United States and its Quad partners in some areas of low politics, such as vaccine distribution, infrastructure investments, and supply chain diversification, even as it insists that none of these initiatives are directed against China. But on the most burdensome challenge facing Washington in the Indo-Pacific—securing meaningful military contributions to defeat any potential Chinese aggression—India will likely refuse to play a role in situations where its own security is not directly threatened. In such circumstances, New Delhi may at best offer tacit support.

Although China is clearly India's most intimidating adversary, New Delhi still seeks to avoid doing anything that results in an irrevocable rupture with Beijing. Indian policymakers are acutely conscious of the stark disparity in Chinese and Indian national power, which will not be corrected any time soon. New Delhi's relative weakness compels it to avoid provoking Beijing, as joining a U.S.-led military campaign against it certainly would. India also cannot escape its physical proximity to China. The two countries share a long border, so Beijing can threaten Indian security in significant ways—a capability that has only increased in recent years. Consequently, India's security partnership with the United States will remain fundamentally asymmetrical for a long time to come. New Delhi desires American support in its own confrontation with China while at the same time intending to shy away from any U.S.-China confrontation that does not directly affect its own equities. Should a major conflict between Washington and Beijing erupt in East Asia or the South China Sea, India would certainly want the United States to prevail. But it is unlikely to embroil itself in the fight.

New Delhi's deepening defense ties with Washington, therefore, must not be interpreted as driven by either strong support for the liberal international order or the desire to participate in collective defense against Chinese [aggression](#). Rather, the intensifying security relationship is conceived by Indian policymakers as a means of bolstering India's own national defense capabilities but does not include any obligation to support the United States in other global crises. Even as this partnership has grown by leaps and bounds, there remains an unbridgeable gap between the



two countries, given India's consistent desire to avoid becoming the junior partner—or even a confederate—of any great power. The United States should certainly help India to the degree compatible with American interests. But it should harbor no illusions that its support, no matter how generous, will entice India to join it in any military coalition against China. The relationship with India is fundamentally unlike those that the United States enjoys with its allies. The Biden administration should recognize this reality rather than try to alter it.

Ashley J. Tellis is the Tata Chair for Strategic Affairs and a Senior Fellow at the Carnegie Endowment for International Peace.

EDITOR'S COMMENT: In gambling, sometimes you win, sometimes you lose. It is important to review why you lose!

Saudi-Iran deal: Can China end proxy wars in the region?

By Ranj Alaaldin

Source: <https://www.middleeasteye.net/opinion/saudi-iran-deal-china-proxy-war-end-can>



Musaid Al Aiban, Saudi Arabia's national security adviser, Chinese Foreign Minister Wang Yi and Iran's top security official Ali Shamkhani

Apr 10 – The re-establishment of [diplomatic relations](#) between [Saudi Arabia](#) and [Iran](#) announced on 10 March, and the meeting of their foreign ministers [on 6 April](#) has raised expectations of a lasting peace in the Middle East.

The two countries have fought proxy wars in [Syria](#), [Iraq](#), [Lebanon](#) and [Yemen](#) and maintained a fierce geopolitical contestation for influence in the region.

By providing the platform for the agreement and acting as a mediator, [China](#) has effectively stepped in where the [US](#) has previously failed. But there are still a number of notable challenges that could undermine peace between Riyadh and Tehran, and diminish the region's prospects of a lasting peace. Key amongst these challenges are the proxy wars in the Middle East that have claimed hundreds of thousands of lives. From the ruins of such conflicts, armed non-state actors have emerged as important players who will have a decisive say over the future of the region, and can either enable or spoil the fragile peace between Saudi Arabia and Iran.



From proxies to statesmen

The past decade has seen Middle Eastern and Western powers pour vast resources into cross-border proxy conflicts.

One of the fundamental and enduring features of the character of warfare is the role and proliferation of both proxy wars and armed non-state actors.

Hastened - but not enabled - by the 2003 US-led invasion of Iraq, and then intensified by conflicts in Syria, Libya and Yemen after the Arab Spring, proxy warfare has radically transformed governance and security structures in the Middle East.

Proxy wars tend to be inherently protracted, owing to the organisational structure of its non-state belligerents and the involvement of outside actors. The latter increases the durability of such conflicts: outside powers can provide non-state actors with material support such as arms and money and, yet, at the same time deny involvement. This reduces the pressure on states to end their involvement in such wars but allows them to continue to pursue their geopolitical aspirations.

Moreover, it is only when all parties perceive their involvement as offering limited returns and intolerable costs that they contemplate either ending their involvement or becoming more amenable to a settlement - and it remains to be seen whether this applies to Saudi Arabia and Iran.

As the conflicts in Syria and Yemen, among others, highlight, conflict can endure for almost a decade, despite repeated efforts to establish a negotiated end. The notion of a lasting settlement is in itself a difficult concept in the case of civil wars.

The second-order effects of conflicts are often understated: this includes their impact on the public consciousness and the collective memories of injustice and repression they create, and that establish the grievances and conditions for conflict relapse.

These conditions add to the resilience of armed non-state actors.

For the most established groups, such as Iraq's Asaib ahl al-Haq and Yemen's Houthis, the bloodletting that has gripped the region since the 2011 Arab uprisings provided an opportunity to swell their ranks.

Groups such as Hezbollah, meanwhile, expanded their cross-border reach by deploying and supervising fighters to Syria and Iraq.

For the groups that emerged or organised in response to the post-Arab Spring Middle East, such as Iraq's Popular Mobilisation Force (PMF) - which was established in the wake of the war on IS in 2014 - or Hay'at Tahrir al-Sham (HTS) in Syria, which formed in 2017 - proxy wars and material support from external sponsors opened up the opportunity to transition from rag-tag militias to battle-hardened, resource-rich and organisationally disciplined socio-political actors.

Fundamentally, armed groups have started to [re-fashion the state](#) and its institutions according to their own ideological outlook and political objectives. In Iraq, the PMF has secured parliamentary seats, has access to a [\\$2bn budget](#), and functions as an auxiliary of the Iraqi armed forces.

It has even established its own state-sanctioned commercial company with an operating budget of [at least \\$67m](#). Others, such as the Kurdish People's Protection Units (YPG), which controls oil resources in northeastern Syria and HTS in Syria, which governs through the [Syrian Salvation Government](#), as well as a plethora of Iran-aligned groups, which control areas south of the Euphrates river in Deir Ezzor, present challenges for regional security.

This was markedly portrayed by [the escalation](#) this week between Turkey and the Syrian Democratic Forces (SDF), and the [tit-for-tit military confrontation](#) between the US and Iran last month.

Armed groups as spoilers

This week, [Saudi and Omani envoys arrived in Yemen's capital Sanaa](#) to negotiate a permanent ceasefire deal with Houthi officials and end an eight-year-old conflict there.

However, the notion of an inter-state-driven peace process focused on ending proxy wars can be problematic if it attempts to sideline the actors or understates their resilience and resistance to change and, crucially, their capacity to act as spoilers.

Israel and Iran, for example, are engulfed in [a shadow war](#) that produces reverberations in Lebanon, Syria and Iraq.

In Yemen, the Southern Transitional Council (STC), backed by [the United Arab Emirates](#) as part of the Saudi-led coalition, has already said it will [not be bound](#) by an agreement between Saudi Arabia and its Houthi rivals. In Lebanon, the Saudi backed Lebanese Forces Party and Iran-backed Hezbollah have both [expressed scepticism](#) that the Saudi-Iran agreement will end Lebanon's presidential stalemate.

The complex peace-building

Fundamentally, it is difficult to envisage a scenario where Iran will de-mobilise or reign in its allies, not when they have had a transformational impact on Iran's projection of power in the region.

In Syria alone, Iran has mobilised and continues to supervise tens of thousands of Hezbollah fighters and other fighters from Iraq, Pakistan and Afghanistan, who fought alongside the Syrian regime to defeat the rebels and end the uprising.



China has put its credibility on the line by functioning as a guarantor of peace between Saudi Arabia and Iran.

Beijing is entering uncharted territory where armed non-state actors exercise greater authority and legitimacy, and can, therefore, determine the contours of peace in the region. Here, Beijing lacks the institutional experience and track-record for managing the complexities of peacebuilding.

Such complexities are only really addressed, in the long-term, through security reform and good governance, processes that mitigate the far-reaching political and humanitarian implications that armed groups and the war economy present. While these constitute essential parts of Western engagement with the region, it is unclear if China will follow suit.

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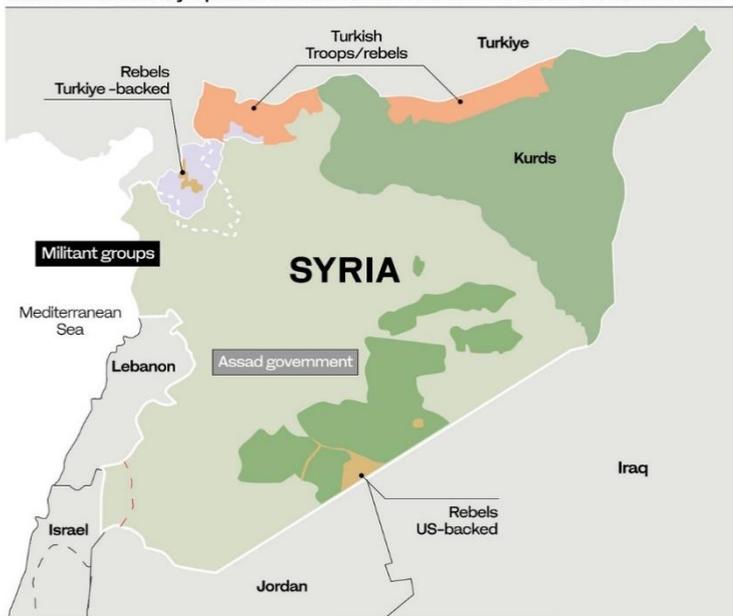
Living in Syria, officially the 3rd most dangerous country in the world

By Nuha Salam (freshman at Shrewsbury High School)

Source: <https://highschool.latimes.com/shrewsbury-high-school/living-in-syria/>

WHO CONTROLS WHAT IN SYRIA

Much of the country's proven oil reserves are found in the Kurdish-held northeast



Source: Jane's Conflict Monitor, The Economist

ARAB NEWS

country contributing to the internal displaced population, beating both Venezuela and Ukraine.

What is causing all these refugees to leave this country? Over the past decade, conflicts inside Syria grew more intense. The lives of citizens were put in grave danger, as their own president launched chemical warfare on them.

According to the Australian travel advisor, [Smart Traveler](#), Syria is found to have excruciatingly low medical care, high kidnapping rates, risk of robberies, murder, carjacking, and the list goes on. The water and food in Syria tend to have infectious diseases such as brucellosis, typhoid, and hepatitis. Syria has become such a dangerous country that most commercial airlines have stopped even traveling to Syria, leaving its citizens with no easy escape route. Life in Syria is undoubtedly dangerous, since the start of the Syrian conflict there have been [over 500,000 deaths](#) (which is a severe undercount as many are dying with no records).

Consequently, children in Syria are unable to go to school, in fact, in an interview done with a 14-year-old Syrian child, Ahmed, he stated that "Being scared was a permanent state of mind. I was always scared. When I went to bed, I always wondered if I would wake up the next morning."

May 08 – Since 2011, Syria has been having occasional news coverage, titles often include "war," "danger," "terrorism," and the list goes on. Yet, people often don't realize the true story behind the Syrian conflict.

As various other conflicts emerge such as Ukraine and Israel-Palestine, the complex wars in Syria continue to be buried under international emergencies, having its cries for help muffled. Recently, Syria has been officially declared as [the third-most dangerous country in the world](#) under some sources, so the question arises, who are the ones subjected to danger living?

The [UN Refugee Agency](#) reported over 53.2 million displaced refugees, of these millions, 6.8 million are from Syria, making it the highest

IN NUMBERS

3,825

People killed in 2022, the lowest yearly toll since the war began

2,198

Total number of combatants killed in 2022

1,627

Total number of civilians killed, including 321 children and 159 women

209

Civilians killed by mines and other explosives, around half of them children

Source: Syrian Observatory for Human Rights



The lifestyles of the citizens in Syria is far from lavish, one which no one deserves. However, once they escape, life doesn't get much easier for them. Typically, Syria Refugees escape to nearby countries which provide shelter for them. As commercial airlines have stopped providing flights to and from the country, they have to walk and use the road. Often once escaping, these refugees are put into camps, where they are provided food, shelter, and water, but these camps aren't precisely heaven for them either. With no option for employment or to get a job, they have no chance to leave the shelter and create a life for themselves. It's hard to gain a passport from a different country, especially in countries with strict immigration laws, the journey just gets harder. Without an identity outside of Syria, these refugees have little hope despite what they've done to get there.

To no surprise, the refugee camps are tough on children too, ones who have no education, no parents, no family, no support, and are left to fend for themselves. According to [Save the Children](#), a program designed to create more humane refugee camps, covered a story of a two-year-old named Salim living in a refugee camp near the Syrian border. They stated that "In the midst of a bitter winter, Salim, age 2, tries to stay warm at a refugee camp near the Syrian border. With temperatures nearing sub-zero, Salim will face this brutal winter in a snow-covered tent with only the clothes on his back to keep warm." While refugee camps do provide shelter, they lack comfort, stability, or any humane lifestyle for these Syrians to get a chance to continue their life.

Living in a world with billions of people, sometimes it can be hard to recognize the struggles of others. While the lives of Syrians are undoubtedly strenuous, all their struggles lack proper media coverage or external help which develops the root problem of lack of attention. Syrian refugees need assistance from others, as who else will provide it if they don't have a country of their own?

A new world of global threats requires a new strategic lexicon

By Harlan Ullman

Source: <https://thehill.com/opinion/national-security/3992560-a-new-world-of-global-threats-requires-a-new-strategic-lexicon/>



FILE – Russian President Vladimir Putin, right, and Chinese President Xi Jinping toast during their dinner at The Palace of the Facets, a building in the Moscow Kremlin, Russia, on March 21, 2023. (Pavel Byrkin, Sputnik, Kremlin Pool Photo via AP, File)

May 08 – Over time, things wear out. Cars, cell phones, hips, knees and other low joints often need replacement. That process applies to words too. For about seven decades, a common American strategic lexicon has persisted. [Containment](#), a product of the early Cold War, [deterrence](#) and its cousin [MAD](#) for mutual assured destruction, defense, and the whole family of [proliferation](#) — including non-, counter- and anti- — were central

to this strategic dictionary. But are they still relevant?

Containment was meant to keep the Soviet Union from expanding west beyond its borders and those of its satellite states comprising the [Warsaw Pact](#). Deterrence and MAD were designed to prevent an existential thermonuclear World War III between East and West. And the proliferation family was to limit the spread of weapons of mass destruction. All reflected this [bipolar conflict](#).

Much of that world is gone or has undergone a tectonic change. The U.S. now confronts two main challengers. China is an economic and an emerging military superpower. Russia is an energy and nuclear weapons superpower that has started a war on NATO's borders. But containment has not worked. China is [threatening](#) Taiwan and is encroaching on its neighbors' access to international waters. It is expanding its global military presence. And [paramount leader](#) Xi Jinping is attempting to become a key global influencer, perhaps replacing the U.S. And, of course, Russia [seized](#) parts of Georgia in 2008 and Crimea in 2014, and it attacked Ukraine last year. While some might assert that deterrence has avoided nuclear war and Taiwan has not been invaded by China, that is a paper-thin argument. Likewise, [nine states](#) possess nuclear weapons, and several more have a short-term breakout potential. What do these realities mean for the strategic lexicon?

First, the old MAD has been replaced by a new [MADD](#) for massive attacks of disruption and destruction, by both man and nature. On the latter, [the COVID-19 pandemic](#) and [climate change](#) have caused more deaths and destruction than many wars. National security must embrace these threats and dangers as much as those posed by traditional state and non-state actors.

Second, deterrence has become what I refer to as "[triterrence](#)." During the Cold War, the analogy of two [scorpions](#) in a bottle was employed. Today, metaphorically, there are three scorpions, with others seeking entry. The consequences are profound. Nuclear targeting is one example. Where do, and will, these scorpions target their weapons? And what about the conventional aspects when technology is



offering extraordinary capabilities? Third, operationally, containment needs a replacement. Using MADD, which combines the existential threat of thermonuclear war and the existential dangers posed by nature — irrespective of one’s view of climate change — as the foundations for national security also will modernize the strategic lexicon. The [aim](#) of MADD must be to prevent and contain damage to take the place of deterrence and defense. [Prevention](#) and containment of damage assume more active and even [proactive](#) policies than traditional deterrence, which, of course, was never designed to deal with the non-state aspects of MADD. This applies to triterrence. Maintaining some balance between and among these three principal powers is essential. And that raises another Cold War term of arms control.

[Arms control](#) was crucial during the Cold War in reducing not only weapons but also tensions and the dangers of war by miscalculation. The [New START Treaty](#) limits the U.S. and Russia to [1,550](#) warheads. China is now increasing its nuclear forces to at least [several hundred](#) or more warheads and does not intend to engage in arms control. How will this play out under a number of scenarios, including a semi-alliance between Moscow and Beijing or a breakdown of that relationship?

As the Cold War hardened, massive intellectual effort went into strategic analysis and the formation of [concepts](#) for the thermonuclear age. It is unclear that a similar level of intellectual resources is present today. The tendency seems to be a linear progression using these dated terms and concepts. Given the [intense](#) politicization and divisions in America today, the question is whether “objective” analyses are possible. Further, when is the last time any administration made a profound alteration in its national security policy and planning? Since the Obama administration’s national security and defense strategies ([NSS and NDS](#)), the Trump and Biden White Houses have followed suit. The [aims are similar](#) to contain and deter, and if war comes, deter or prevail over five potential adversaries topped by China and Russia.

Will this thinking change? The answer is probably not. And that will not necessarily provide for an adequate, future common defense.

[Harlan Ullman, Ph.D.](#) is a senior advisor at Washington, D.C.’s Atlantic Council and the prime author of “shock and awe.” His twelfth book, “The Fifth Horseman and the New MAD: How Massive Attacks of Disruption Became the Looming Existential Danger to a Divided Nation and the World at Large,” is available on Amazon.

Military parade: EU vs. Russia



Victory Day (May 09) is a holiday that commemorates the Soviet victory over Nazi Germany in 1945.





Japan: Public Reluctant to Defend Taiwan Should China Invade

By Julian Ryall

Source: <https://www.homelandsecuritynewswire.com/dr20230511-japan-public-reluctant-to-defend-taiwan-should-china-invade>

May 11 – A full 80% of the 3,000 adults interviewed by the *Asahi Shimbun* daily newspaper recently expressed concern that [Japan would become caught up in the conflict](#) if Beijing were to attack [Taiwan](#) in an effort to unify it with the Chinese mainland. Political analysts and members of the public from across Japan's political spectrum said they were "not at all surprised" at the outcome of the poll.

It is widely expected that the [US would go to Taiwan's aid in the event of any such assault](#). The government in Tokyo, which is at present presiding over a massive increase in arms spending, has in the past stated that a Chinese invasion of the island would pose a critical threat to Japan too, as it would leave Beijing in control of the sea lanes used to transport 90% of the nation's energy needs and 60% of its food supplies.

Tokyo has not explicitly stated that it would commit ground, air or maritime units to help fend off any Chinese attack; but soaring defense spending and the upgrading of Japan's naval and air capabilities, in particular, indicate that the military is preparing itself.

Rear-Echelon Support for U.S. Forces Only

The increased expenditure has triggered a domestic debate on what Japan's role might be in a conflict, with 56% of those polled by *Asahi* saying that the Japan Self-Defense Forces (JSDF) should be limited to providing rear-echelon support to US forces, such as assistance with fuel, food and medical aid, as well as logistics. Just 11% said the [Japanese military should join forces with the US](#) to repel the invasion.

"People in general do not want war and I would say that most people in Okinawa are opposed to the Japanese military getting involved in any conflict over Taiwan," said Shinako Oyakawa, who is involved in local politics in Japan's most southerly prefecture.

"Fighting there would have a direct influence on people here as Taiwan is just one hour's flight from Okinawa," she told DW. "And the people of Okinawa experienced just how brutal war can be back in 1945. No one wants to see that happen again. But if Japan became involved that is exactly what would happen."

Oyakawa said people in Okinawa were "uneasy" about the [present tensions in the region](#), but also had sympathy for the people of Taiwan as China increases pressure on the island.

"I have also heard that the people of Taiwan do not believe the situation is as critical as others are saying and if that is the case, then governments should not exaggerate a situation to promote their own military plans," she said.

Ren Yabuki, an environmental campaigner who lives in Wakayama in central Japan, is also opposed to the Japanese armed forces becoming involved in combat operations.

"I do not support a military solution and hope for a political solution, so I do not want the Japanese government to provide military support to the US," he said. "I am strongly opposed to all wars and believe all problems between nations should be resolved through diplomatic efforts."

In the past, the JSDF has provided logistical support to other nations' forces, including in the Gulf War, but Yabuki did not support this policy either. "I believe the JSDF should function only for the defense of Japan," he said.

'Who Will Help Japan When We Are Threatened?'

Hirokichi Moteki, the acting secretary general of the Society for the Dissemination of Historical Fact, a right-wing organization in Tokyo, had a different view. "I absolutely believe that Japan should work with the Americans to assist Taiwan," he said. "These are both democratic nations that are our friends and allies and if Japan does not come to their assistance in a time of need, then we will lose their confidence and who will help [Japan](#) when we are threatened?" he asked.

He argued that the failure to stand up to China now would imperil Japan's control of the uninhabited Senkaku Islands, known as the Diaoyu Islands in China, in the East China Sea that Beijing lays claim to, as well as the whole of Okinawa Prefecture.

He blamed the "lack of fortitude" in many of his fellow Japanese on an education system that has become "obsessed with finding ways to avoid confrontation and conflict."

"The results of the poll are to be expected as I saw a study that said **50% of young Japanese would not even fight for their own country** if we were invaded," he said. "My feeling is that we need to stand up to countries that threaten us and support our friends when they are also in danger."



All-Time Record: 71 Million People Internally Displaced Worldwide

Source: <https://www.homelandsecuritynewswire.com/dr20230511-alltime-record-71-million-people-internally-displaced-worldwide>

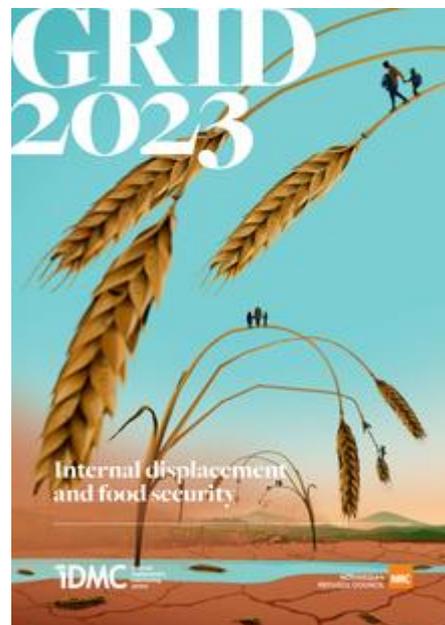
May 11 – The number of internally displaced people (IDPs) around the world reached 71.1 million as of the end of 2022, an increase of 20 percent from the previous year, according to the [Internal Displacement Monitoring Centre's annual report](#).

The number of movements in which people fled in search of safety and shelter, sometimes more than once, was also unprecedented in 2022. The figure of 60.9 million was up 60 percent from the previous year. The conflict in Ukraine triggered nearly 17 million displacements as people fled repeatedly from rapidly shifting frontlines, and monsoon floods in Pakistan triggered 8.2 million, accounting for a quarter of the year's global disaster displacement.

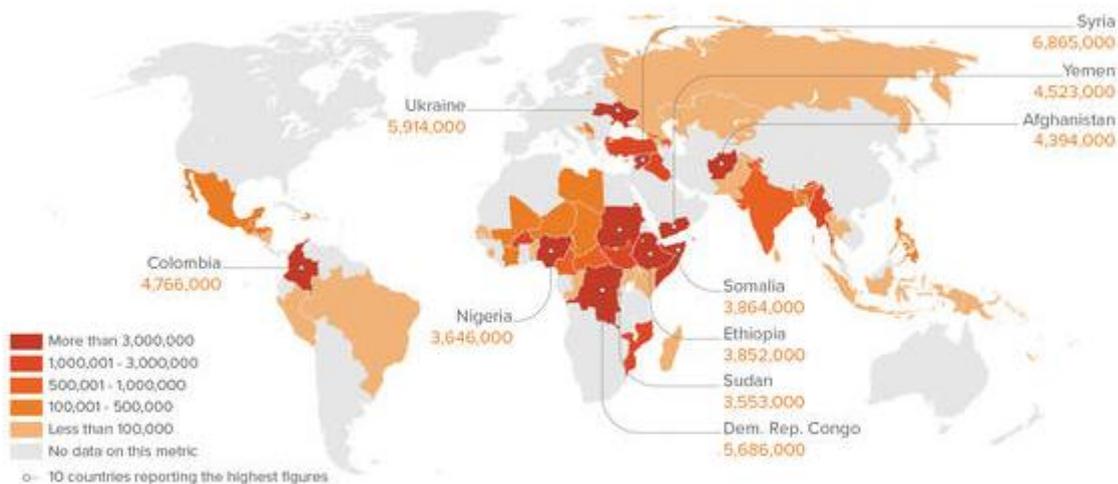
"Today's displacement crises are growing in scale, complexity and scope, and factors like food insecurity, climate change and escalating and protracted conflicts are adding new layers to this phenomenon," said IDMC's director, Alexandra Bilak. "Greater resources and further research are essential to help understand and better respond to IDPs' needs".

Internal displacement is a global phenomenon, but nearly three-quarters of the world's IDPs live in just 10 countries - Syria, Afghanistan, the Democratic Republic of the Congo (DRC), Ukraine, Colombia, Ethiopia, Yemen, Nigeria, Somalia and Sudan - many as a result of unresolved conflicts that continued to trigger significant displacement in 2022.

Conflict and violence triggered 28.3 million internal displacements worldwide, a figure three times higher than the annual average over the past decade. Beyond Ukraine, nine million or 32 percent of the global total were recorded in sub-Saharan Africa. DRC accounted for around four million and Ethiopia just over two million.



Total number of IDPs by conflict and violence as of 31 December 2022



62.5 Million people living in displacement as a result of conflict and violence in **65** countries and territories as of **31 December 2022**

The number of disaster displacements rose by nearly 40 percent compared to the previous year, reaching 32.6 million, largely the result of the effects of La Niña which continued for a third consecutive year. South Asia recorded the highest regional figure, surpassing East Asia and the Pacific for the first time in a decade. In the Horn of Africa, the worst drought in 40 years triggered 2.1 million movements, including 1.1 million in Somalia alone, while fueling acute food insecurity across the region.



The secretary general of the Norwegian Refugee Council, Jan Egeland, described the overlapping crises around the world as a “perfect storm”.

“Conflict and disasters combined last year to aggravate people’s pre-existing vulnerabilities and inequalities, triggering displacement on a scale never seen before,” he said. “The war in Ukraine also fueled a global food security crisis that hit the internally displaced hardest. This perfect storm has undermined years of progress made in reducing global hunger and malnutrition.”

Better data and analysis are still needed to improve understanding of the relationship between food security and displacement, but IDMC’s report shows that the former is often a consequence of the latter and can have lasting impacts on both IDPs and host communities. Three-quarters of the countries that face crisis levels of food insecurity are also home to IDPs.

Shining light on this connection is key to understanding how IDPs are affected by disruptions to food systems, but also how future investments in food security will be essential to reaching solutions.

“There is an increasing need for durable solutions to meet the scale of the challenges facing displaced people,” Bilak said. “This spans the expansion of cash assistance and livelihood programs that improve IDPs’ economic security, through to investments in risk reduction measures that strengthen their communities’ resilience.”

The Worst Crime of the 21st Century



Ukrainian advisor Zelensky's regime, M. Podolyak, made threatening statements on possible terrorist attacks around Europe, if EU High Representative of the Union for Foreign Affairs and Security Josep Borrell one day decides we won't send any more weapons to Ukraine.

That's enough!



Waiting to Impale: Defending Taiwan with Artificial Reefs

By Scott Savitz

Source: https://www.realcleardefense.com/articles/2023/05/10/waiting_to_impale_defending_taiwan_with_artificial_reefs_898500.html



May 10 – Deterring a Chinese invasion of Taiwan is arguably the most important defense problem of the next few decades. Artificial reefs could help to deter China simply by waiting to impale any potential invasion force.

If China is to conquer the island, it needs to be able to rapidly move vast quantities of personnel and equipment across a 100-mile strait and onto the island itself, despite opposition from Taiwanese and perhaps American forces. This requires a seaborne invasion, since the required mass of materiel greatly exceeds what could be delivered by air. Moreover, the armada will be restricted to only a few potential landing sites with appropriate water depths for ships and landing craft, as well as vehicle-accessible routes for ground forces to exit the landing area.

Taiwan can target incoming Chinese forces using an array of systems, such as missiles, bombs, [naval mines](#), [explosive uncrewed surface vessels](#), and artillery. However, even **physical barriers** without explosive payloads can effectively complement these weapons. Emplacing artificial reefs near potential landing beaches could help to deter or defeat a Chinese invasion while also providing environmental and economic benefits, all at extremely low cost. Ships and/or landing craft that tried to operate in those areas would run aground or even impale themselves on reefs, rendering themselves ineffective, stationary targets. They would also clutter a crowded operating area, impeding the movements of other ships and landing craft. Anticipating this damage and disruption, China would be less tempted to attempt an amphibious assault.

This is not a new idea. When Athenian forces invaded Sicily 2,400 years ago, the defenders of Syracuse [implanted underwater stakes in their harbor](#) to impale and ground Athenian vessels. These pre-explosive equivalents of naval mines played a supporting role in the catastrophic defeat of Athens, culminating in the death or capture of nearly the entire invasion force.

More recently, ships running aground on reefs have been immobilized and experienced large-scale damage. [The USS Guardian had to be dismantled](#) after it ran aground on a Philippine reef in 2013, and a U.S. Military Sealift Command vessel was [stuck on a reef near Okinawa](#) for over a week in 2015. Just in the last year, two large cargo ships have run aground on reefs—one in [Jordanian waters in September 2022](#), and another [east of Belize in March 2023](#). All of these incidents took place in well-charted waters in peacetime, whereas ships and landing craft operating under fire in waters where they had never been before would likely be more prone to risk. Even if a ship can



eventually free itself from a reef, the initial impact can damage equipment both on the hull and inside the ship, particularly if salt water is able to intrude.



China could try to bombard the reefs in an effort to diminish the hazard they pose to the invasion forces. However, bombardment would likely result in chunks of reef being displaced from one place to another, creating new hazards in unknown locations. Any unexploded ordnance would also pose a risk to the Chinese vessels moving through it. In addition, bombardment of the reefs would reveal the intended landing site. If China tried to avoid tipping its hand by bombarding reefs in a range of locations, this would divert substantial airpower and missiles from other targets, including Taiwan's military forces, during the critical opening days of the conflict. Reefs could even have military benefits well before a conflict, as Chinese forces sought information about the physical environment. Chinese scouting of the approaches to the landing site using [uncrewed undersea vehicles \(UUVs\)](#) or [low-profile uncrewed surface vessels \(USVs\)](#) would be inhibited by reefs and the sea life that they support, particularly entangling plants. Making the environment more complex with reefs would necessitate more Chinese scouting, while also requiring that uncrewed vehicles have advanced autonomy to avoid collisions and groundings. UUVs and USVs that became stuck in the reefs would provide valuable intelligence regarding Chinese technologies and intentions.

Compared with the costs of military hardware, artificial reefs are inexpensive. Pyramid-shaped or spherical concrete reef substrates [can cost just a few thousand dollars](#); dozens of them could be purchased and emplaced for less than it costs to operate a single fighter jet for an hour. They can last for decades or longer, with no maintenance costs whatsoever. Ancillary environmental benefits include providing habitats for various creatures, some of which attach themselves to the reef, expanding its size and impact. Reefs also reduce coastal erosion and vulnerability to storms by dampening extreme waves. For this reason, the Defense Advanced Research Projects Agency is investigating the use of artificial [reefs to help protect coastal military bases](#) from rising, increasingly intense seas. Artificial reefs can also serve as attractions for divers and recreational fishing boats, stimulating local economies.

Overall, building artificial reefs near potential Taiwanese landing beaches could provide an array of benefits at a very low cost. These physical barriers would complicate China's intelligence preparation of the battlespace, then severely impede an actual invasion. Attempts to bombard the reefs on the eve of an invasion would cost orders of magnitude more than the reefs themselves, whether China used missiles or aircraft with guided munitions. More importantly, bombardment of the reefs would divert precious Chinese assets at a critical time, and the reefs would retain much of their ability to stymie the attackers. Chinese decision-makers would know all this in advance, diminishing their ardor for aggression. In short, artificial reefs could help to deter China simply by waiting to impale any potential invasion force.

[Scott Savitz](#) is a senior engineer at the RAND Corporation.





Is Taiwan Prepared for a Potential Chinese Attack?

By William Yang

Source: <https://www.homelandsecuritynewswire.com/dr20230512-is-taiwan-prepared-for-a-potential-chinese-attack>

May 12 – Taiwan’s air defense capabilities have come into focus in recent weeks, after the *Washington Post* reported that [Taiwan](#) would struggle to handle aerial offensive operations from China, citing classified documents leaked by a 21-year-old American man who was a member of the Massachusetts Air National Guard.

The report, [which was published in April](#), claimed that Taiwanese officials doubt their air defense can “accurately detect missile launches” from China and that not enough of Taiwan’s military aircraft are “fully mission capable.” The report also highlighted that Taiwan’s fighter jets could become targets of Chinese missile attacks as it requires at least “a week” to move them to shelters.

Taiwan’s Defense Ministry described details in the US newspaper’s report as “untrue” and emphasized that Taiwan had made “appropriate modifications on combat plans” while continuing to bolster its military preparedness. Some analysts agree that the leaked documents underestimate Taiwan’s “robust” missile defense capabilities.

“Taiwan’s long-range early warning radar and space warning can detect missile launches within seconds, and it also has a very impressive command and control system,” said Tony Hu, a former senior director for [China](#), Taiwan, and Mongolia at the US Department of Defense.

Can Taiwan Counter China’s Large Number of Military Aircraft?

Despite some pushbacks against the characterization of Taiwan’s air defense capabilities in the leaked documents, there are still some doubts about the island’s overall air defense capabilities. One of the sources of concern is the huge disparity between China and Taiwan’s air power.

According to Global Firepower — which ranks nations’ military capabilities — China’s People’s Liberation Army (PLA) has more than 3,000 military aircraft and close to 400,000 personnel in its air force while Taiwan has just over 700 military aircraft and more than 30,000 soldiers in its air force.

But some experts told DW that while China’s superiority in air power can overwhelm some areas of Taiwan’s air defense, the island can neutralize the huge disparity with anti-aircraft missiles. “In [the Ukrainian war](#), even though there is a huge difference in the number of military aircraft between the Ukrainian and Russian air forces, Ukraine could use short-range stinger missiles to gain some air defense capabilities,” Tzu-Yun Su, an analyst at the Institute for National Defense and Security Research (INDSR) in Taiwan, told DW. Since Taiwan has long-range, medium-range, and short-range air defense missiles, Su thinks it can help form a certain degree of the island’s air defense capabilities. “Even though they only have short-range missiles, Ukraine has done a good job in air defense, and since Taiwan has a wider range of air defense missiles, it can do better in terms of air defense,” he said.

According to data released by the Center for Strategic and International Studies (CSIS) in 2021, a Washington-based think tank, Taiwan’s missile program is primarily made up of six types of missiles of different ranges — Tien Chi, Hsiung Feng II, Hsiung Feng III, Wan Chien, Hsiung Feng IIE and Yun Feng.

There are also Tien Kung missiles, which are surface-to-air anti-ballistic missiles developed by Taiwan.

While Taiwan has historically limited its missile forces to defensive assets, CSIS indicated the island has started to develop missiles designed for strike missions.

Taiwan Hopes for U.S. Support

Even though Taiwan can counter China’s superiority in air power with investment in air defense missiles, some research shows the PLA’s efforts to modernize its air force are gaining momentum. In a blog post published in February, the International Institute for Strategic Studies (IISS) said data from the Military Balance, the institute’s annual assessment of military capabilities of 173 countries, shows that the PLA is adding combat aircraft at pace. According to IISS, the PLAAF now has more than 600 aircraft across 19 front-line combat brigades, and the annual production rate of combat aircraft, like the “low-observable” Chengdu J-20, has doubled over the last three years. Former Pentagon official Hu told DW that Beijing has achieved success in producing new types of combat aircraft, including the J-35 stealth fighter jet. This shows a “significant growth in China’s ability and it’s a concern,” he said.

However, Hu added that China’s progress in producing large numbers of combat aircraft may not be enough to “turn the tide of defending Taiwan,” as the island also has aircraft and other systems provided by the US that can help support Taiwan’s combat capability. As part of the efforts to strengthen support for Taiwan’s air defense capabilities, the island’s defense ministry signed on April 21 two deals worth around US \$420 million (€386 million) for parts and aviation materials that can be used to maintain Taiwan’s fighter jets.



Additionally, one of Taiwan's defense contractors, Aerospace Industrial Development Corp (AIDC), said earlier this month that the island was seeking support from the US to manufacture the next domestically developed fighter jet. "When it comes to the development of the next-generation fighter, [we hope the United States supports Taiwan](#) to develop it itself, including the engine, avionics, control systems, environmental controls, and so on, which are all an opportunity for Taiwan-US cooperation," said Kai-Hung Hu, the chairman of AIDC.

Intimidation

While experts like Hu and Su both think Taiwan's air defense capabilities can withstand China's aerial attack to a certain extent, they also express concern about China's ongoing gray zone activities around Taiwan, which include the incursion of Taiwan's Air Defense Identification Zone (ADIZ) by China's military aircraft as well as the growing frequency of China's blockade style military exercises around Taiwan. Since April of 2023, China has increased the frequency of its gray zone operations around Taiwan, including a three-day blockade-style military exercise around Taiwan as a response to Taiwan President Tsai Ing-wen's meeting with US House Speaker Kevin McCarthy last month. Additionally, the PLA has tested new gray zone tactics by deploying combat drones to circle Taiwan twice over the last week, raising concerns that China may be testing new capabilities to intimidate the island. "Beijing is demonstrating that the drones have become part of their gray zone operations around Taiwan," said Crystal Chen-Yi Tu, an assistant research fellow at INDSR in Taiwan. Former Pentagon official Hu warned that the main objective of China's gray zone operations around Taiwan was to instigate a "defeatist attitude" among Taiwanese people while affecting the island's air defense readiness and capabilities. "The war is on right now because China's number one objective is to keep the pressure on to scare Taiwanese people," he told DW. Hu adds that instead of letting Taiwanese pilots fly new military aircraft to intercept Chinese aircraft, which could disrupt their usual training and increase the efforts to maintain the aircraft, Taiwanese authorities should try to "play their own game." "Taiwan should consider using the soon-to-be-retired military aircraft to conduct these intercepts and use retired pilots to conduct these missions," he said. In order to be better prepared for the growing risks of a potential [cross-Strait](#) conflict, Hu thinks Taiwan should establish a rule of engagement for China's gray zone operations while ensuring there is enough war reserve stock. "It's critically important to ensure the stockpile of necessary materials is in place in Taiwan," he told DW.

Zelenskiy collects Charlemagne Prize on behalf of Ukrainian people



A small token to Ukrainians sacrificing instead of European citizens in a proxy EU/NATO/USA war (plus German 2.7 billion euros in military aid)



“Nearly 90% of the planet is NOT following the right side of history”! Cover article from Newsweek

Source: <https://hellas.postsen.com/trends/345777/Nearly-90--of-the-planet-is-NOT-following-the-right-side-of-history-Cover-article-from-Newsweek.html>

May 18 – Greek Prime Minister Kyriakos Mitsotakis claimed he had placed Greece on the right side of history, trying to justify his inexplicable stance on the Russia-Ukraine war. The Greek government has almost declared war on Russia, at the same time that it seems very willing to discuss with Turkey, which threatens us...

The “right side of the story” cannot be determined by percentages. However, the article signed by David H. Rundell and Michael Gfoeller in Newsweek can only frighten those who have believed that the entire planet is against Russia and Putin.

They write:

“The hitherto known political and economic alliances are changing, and this change was made clear by the varied reactions to Russia’s invasion of Ukraine. While the United States and its closest allies in Europe and Asia have imposed tough economic sanctions on Moscow, 87% of the world’s population has refused to follow us.”

The two US diplomats point out that “nowhere is the change more evident than in energy markets where, unlike currencies, governments cannot simply print what they need. Here the web of sanctions becomes a sieve.

Saudi Arabia, long a staunch American partner, has forged a close alliance with Russia in the OPEC Plus cartel. The Saudis have publicly refused the US president’s request to increase oil production. Instead, they imported Russian oil for domestic use to export more of their own production. Last week they cut production even more and said that they might do it again.

China sells liquefied natural gas (LNG) from Siberia to Europe while simultaneously importing Russian oil. It then refines and extracts it. Meanwhile, Iran has become Russia’s largest customer for wheat.

India’s oil minister has publicly stated that his government is not in conflict with Moscow and that he has a “moral duty” to keep domestic energy prices low by buying Russian oil.

Alliances created in part to counter Western economic and political influence are expanding. Egypt, Saudi Arabia and Turkey have announced their interest in joining BRICS (Brazil, Russia, India, China and South Africa). The Shanghai Organization currently links China, Russia, India and Pakistan. Iran plans to join this month, while Bahrain, Egypt, Saudi Arabia and Qatar are likely to become “dialogue partners” or candidate members.

In addition, China’s ambitious Belt and Road Initiative links many African nations to Beijing with trade ties. Russia is reaching out to Africa with Foreign Minister Sergei Lavrov, who recently addressed his 22 Arab League counterparts in Cairo before touring several African countries.

If these are not enough to think again about the West its policy, let’s add that Moscow is again in Latin America, strengthening its military ties with Nicaragua, Venezuela and Cuba. The two major powers in this region, Brazil and Mexico, have officially refused to support Western sanctions against Russia.

The status of the reserve currency, the dollar remains a pillar of the global economic order, but confidence in that order has been damaged. The financial sanctions have shaken parts of the international banking and insurance sector, including the SWIFT funds transfer system. Assets seized and contracts canceled for goods. Calls for de-dollarization have grown louder. When Russia demanded energy payments in roubles, yuan or UAE dirhams, China and India complied.

Many Asian economies are now being hit by both rising oil prices and the devaluation of their own currency against the dollar. As a result, they are expanding their use of bilateral currency exchanges that allow them to trade with each other in their own currencies. Eighty years ago the British pound lost its pre-eminent position among the world’s currencies. This is exactly what America’s dollar rivals are trying to do, and if the Saudis ever stop pricing oil in dollars, they may well succeed.

Globalization can only work if most participants in it believe that it promotes their interests. If the rest of the planet believes that the West is using it unfairly for its own benefit, the rules-based international order is collapsing and alternatives will emerge.

Today, inflationary pressures and fears of recession haunt much of the world. While the wealthy West can afford the cost of sanctions, many of the rest of the world cannot. Europe now competes with countries such as Bangladesh, Sri Lanka, Pakistan and Thailand for energy shipments. In North Africa and the Middle East, energy and food shortages have raised the prospect of Arab Spring-like political unrest.

These concerns create significant anti-Western sentiment in much of the world. Furthermore, Russia which has nuclear weapons does not seem willing to end the war and its leaders cannot afford to lose. The West is rapidly losing allied states and thereby undermining the rules-based international order it sought to create.



Kissinger's 8-Hour Interview Displays How Stupid Powerful People Can Be

By Eric Zuesse

Source: <https://southfront.org/eric-zuesse-kissingers-8-hour-interview-displays-how-stupid-powerful-people-can-be/>

On May 17th, Britain's *Economist* magazine published its [8-hour, 16,000-word, interview of Henry Kissinger](#), and the irrationality of his thinking there was undeniable. Senility might be blamed for it, but, if so, then he has always been senile, because his thought-processes were always stupid and pretentious in the same way, as will be documented here. Only, this time, he contradicted himself even more than he usually does, because of the sheer length of this interview.

He said that, upon further reflection, he no longer believes what he previously did, that Ukraine should not be admitted into NATO. [Previously](#), he had said that Ukraine shouldn't be allowed into NATO because "The West must understand that, to Russia, Ukraine can never be just a foreign country," and yet he also said at that time (2014) that: "Ukraine should have the right to choose freely its economic and political associations" and "Ukraine should be free to create any government compatible with the expressed will of its people," so that what Russia wants should be ignored.



That's like saying: When Cuba's Government, in 1962, wanted the Soviet Union to place its nuclear missiles there, only 1,131 miles away from being able to blitz-annihilate America's central command in Washington DC (and so to prevent JFK from having enough time to authenticate that launch and then to respond to it by hitting the button to launch America's retaliatory weapons against Cuba and against the Soviet Union) in the 1962 Cuban Missile Crisis, only what Cubans wanted was relevant, and what Americans wanted (survival) was not. In other words: Kissinger's statement at that time was stupid, even nonsensical because thoroughly self-contradictory — but, in any case, irrelevant. So: what is his *new* viewpoint on this matter?:

We are on the path to great power confrontation. And what makes it more worrisome to me is that both sides have convinced themselves that the other represents a strategic danger. [Oh, they don't represent a "strategic danger" to each other as being the world's two nuclear super-powers? Really? They aren't? That's not even an issue here, according to him. But he says it used to be. He doesn't say how or why it no longer is.] ...

The Economist: *Russia has destroyed, I think, any chance of finding a way to live with Europe. In the short term, it's going to be a junior partner to China, even as it is sort of clinging to its imperialist dream, with the invasion of Ukraine. Was where we are now inevitable, was it a failure of Western diplomacy? Or was it a catastrophic failure of judgement by Putin?*

Henry Kissinger: *It was certainly a catastrophic mistake of judgement by Putin at the end. I wrote an article, which you've probably seen, in which I substantially predicted the evolution. I thought that the decision to leave open the membership of Ukraine in NATO was very wrong. It was unwise, because if you looked at it from the Russian point of view, in 1989, they controlled Europe up to the Elbe River. They then withdrew from there, under compulsion of their internal system, but still — they withdrew from it. And every square inch of what they withdrew from became part of NATO. The only territory that was left was the country they always considered the little brother closest to them organically and historically. And now it's going into NATO, too. So [that] was a big turning point, it was a final turning point.*

[NOTE: In his entire 16,000 words, he ignores that the condition under which Gorbachev agreed to end the Soviet Union and its communism and its Warsaw Pact mirroring America's NATO military alliance, was America's promise that NATO would not expand in the direction of Russia, which turned out to have been a U.S. Government lie. Kissinger ignores [this crucial fact](#).]

And at that time Putin was even saying that he didn't object to Ukraine becoming part of an economic system with Europe, but not NATO. The year before the war [NO, it was [17 December 2021](#), which Kissinger also totally ignores], he made a proposal on NATO's long-term evolution [to reverse it]. And we didn't take it seriously. It was not acceptable by itself but could have been a starting point. Our negotiator was a wonderful lady, I like her very much, but she hates Putin so totally. [That "she" is [Wendy Sherman](#), Biden's version of Victoria Nuland — but her instructions came from Antony Blinken, and there WERE NO 'negotiations', but [ONLY THIS](#), which ignored each one of Russia's demands — all of which were essential to Russia's national security.]

Compare that with how the West reacted to the Berlin Ultimatum. Both Macmillan and Eisenhower used it to start long negotiations that went on for 20 years until Nixon and Brezhnev found the preconditions for a new Berlin agreement, which then lasted the rest of the cold war. We didn't do that with Ukraine. And **in fact, our negotiators said at the negotiation, that one American basic principle is that any country that meets our**



membership qualification can join. So that meant Russia will be totally surrounded by NATO countries. [He accepts that as being okay, though [the U.S. Government had promised Gorbachev that it would never be allowed.](#)] What is Georgia doing in NATO? We have every right to defend it, but why as part of a multilateral institution? In the 19th century Britain might have defended for a strategic reason. But it wouldn't have brought in everybody else.

To Putin, [his being against] Ukraine membership in NATO was an obsession. So now I'm in the weird position that people say, "He [Kissinger]'s changed his mind, now he's in favour of full membership of Ukraine in NATO." And my reason for that is twofold. One, Russia is no longer the conventional threat that it used to be. [Again he lies.] So the challenges of Russia should be considered in a different context. And secondly, we have now armed Ukraine to a point where it will be the best-armed country and with the least strategically experienced leadership in Europe. If the war ends like it probably will, with Russia losing many of its gains, but retaining Sevastopol, we may have a dissatisfied Russia, but also a dissatisfied Ukraine — in other words, a balance of dissatisfaction.

So, for the safety of Europe, it is better to have Ukraine in NATO, where it cannot make national decisions on territorial claims. [That's his new argument.]

The Economist: *So, your argument for having Ukraine in NATO is an argument for reducing the risks of Ukraine to Europe rather than an argument about the defence of Ukraine?* [However: who assigned to U.S. taxpayers the obligation to fund the multi-hundred-billion-dollar 'defence of Ukraine'? What right does the U.S. regime even have to be 'policeman for the world'? Who is really benefitting from all this? Is it really 'the people of Ukraine'? Or is it U.S.-and-allied billionaires, instead?]

Henry Kissinger: *We've proved now the capability to defend Ukraine. What the Europeans are now saying is, in my view, madly dangerous. Because the Europeans are saying: "We don't want them in NATO, because they're too risky. And therefore, we'll arm the hell out of them and give them the most advanced weapons."* [And that's a lie, too, because America has provided the vast majority of those weapons and advisors to [the U.S.-installed Ukrainian regime.](#)] *And how can that possibly work? We shouldn't end it in the wrong way. Assuming the outcome is the probable outcome, that would be somewhere along the line of the status quo ante that existed [prior to February 24, 2022]. The outcome should be one in which Ukraine remains protected by Europe [Oh, really? Europe will protect Ukraine?] and doesn't become a solitary state just looking out for itself. [Again: he ignores that [ever since February 2014, Ukraine has been a stooge-regime or vassal of the U.S. regime.](#)]*

I want to avoid that. Before, I wanted Ukraine to be a neutral state. But with Finland and Sweden in NATO it doesn't make sense. [Why? He doesn't say. It's another lie.] I want Russia to give up much of what it conquered in 2014 [But [America via coup conquered all of Ukraine except Crimea in February 2014](#), and that is what actually started this war], and it's not my job to negotiate a peace agreement. I can tell you the principles of an enhanced, independent [ruled by the U.S. regime, as [a satellite or vassal-nation](#)] Ukraine, closely tied to Europe and either closely tied under a NATO guarantee or part of NATO. ...

NATO should be maintained. But it's not the spontaneous place to define our future in every area of the world. So much dedication has gone into NATO, and there are so many good people who believe in it and so many useful tendencies in its countries, but I don't think NATO is the place to develop creative policies for all the issues of the world you are asking me about. Its greatest utility is a defence of Europe. ...

If I talked to Putin, I would tell him that he, too, is safer with Ukraine in NATO.

This is not about my legacy as such. But the idea is, I have tried to implement [my view] from the perspective of having seen the challenges of societies in Europe.

The Economist: *Yesterday was like recreating the last chapter of Diplomacy for the present day.*

Henry Kissinger: *[Immanuel Kant] said peace would either occur through human understanding or some disaster. He thought that it would occur through reason, but he could not guarantee it. That is more or less what I think.*

A stupid person becomes easily distracted by irrelevancies in order to be enabled to continue believing the falsehoods that the person believes and holds dear. However, here are the basic facts that he ignores, and which he ignored even when he opposed allowing Ukraine into NATO (and, because it has no irrelevancies, it takes only 160 words, instead of 16,000 words):

JFK was right in the 1962 Cuban Missile Crisis to be willing to take the U.S. to a hot war (WW III) against both Cuba and the Soviet Union if Soviet missiles would become operational in Cuba a mere 1,131 miles away from blitz-nuclear-missile-annihilating America's central command in Washington DC, disabling America's ability to launch its retaliatory weapons. Putin was right to be willing to take Russia to a hot war (WW III) against both Ukraine and America (and its NATO military alliance) if Ukraine would be admitted into NATO so that America then would be able to place its nuclear missiles 317 miles away from blitz-nuclear-missile-annihilating Russia's central command in The Kremlin, disabling Russia's ability to launch its retaliatory weapons. (Russia has also a "dead-hand" system installed in order to launch automatically if The Kremlin becomes annihilated, but it might not work. In any



case, America’s intent here is evil, and must not be allowed to test its effectiveness. However, Kissinger thinks it should.) Kissinger’s stupidity is in service to his personal psychopathy, nothing more. But what he has revealed repeatedly in his statements over the years is that stupid psychopaths can and often do end up in top positions not only in Nazi Germany but in post-WW-II America. In this interview, he similarly lies in order to justify the U.S. regime’s attempts to replace international laws with international rules, and he even has the audacity to assert that China’s Government — which strongly opposes this U.S. goal — merely wants to participate with the U.S. regime in defining what those “rules” will be: “They’re not heading for world domination in a Hitlerian sense [like the U.S. regime actually is]. That is not how they think or have ever thought of world order. [To them,] world order means they are the final judges of their interests. What they want is participation in how the rules are made.” His assumption is that his audience will be at least as stupid as he is — and sufficiently misinformed so as to believe what he says. But how does such a person basically differ from any other of the sleaziest salesmen? What’s the difference between what he is and what they are? Maybe the difference is that he has been more successful at it.

Investigative historian Eric Zuesse’s new book, *AMERICA’S EMPIRE OF EVIL: Hitler’s Posthumous Victory, and Why the Social Sciences Need to Change*, is about how America took over the world after World War II in order to enslave it to U.S.-and-allied billionaires. Their cartels extract the world’s wealth by control of not only their ‘news’ media but the social ‘sciences’ — duping the public.

Laughing break

War Monitor @WarMonitors · Ακολουθήστε

⚡ Biden says he received assurances from Zelensky that Kyiv would not use F-16s to attack Russian territory (Erdogan says the same thing for Greece)

1:43 μ.μ. · 21 Μαΐ 2023

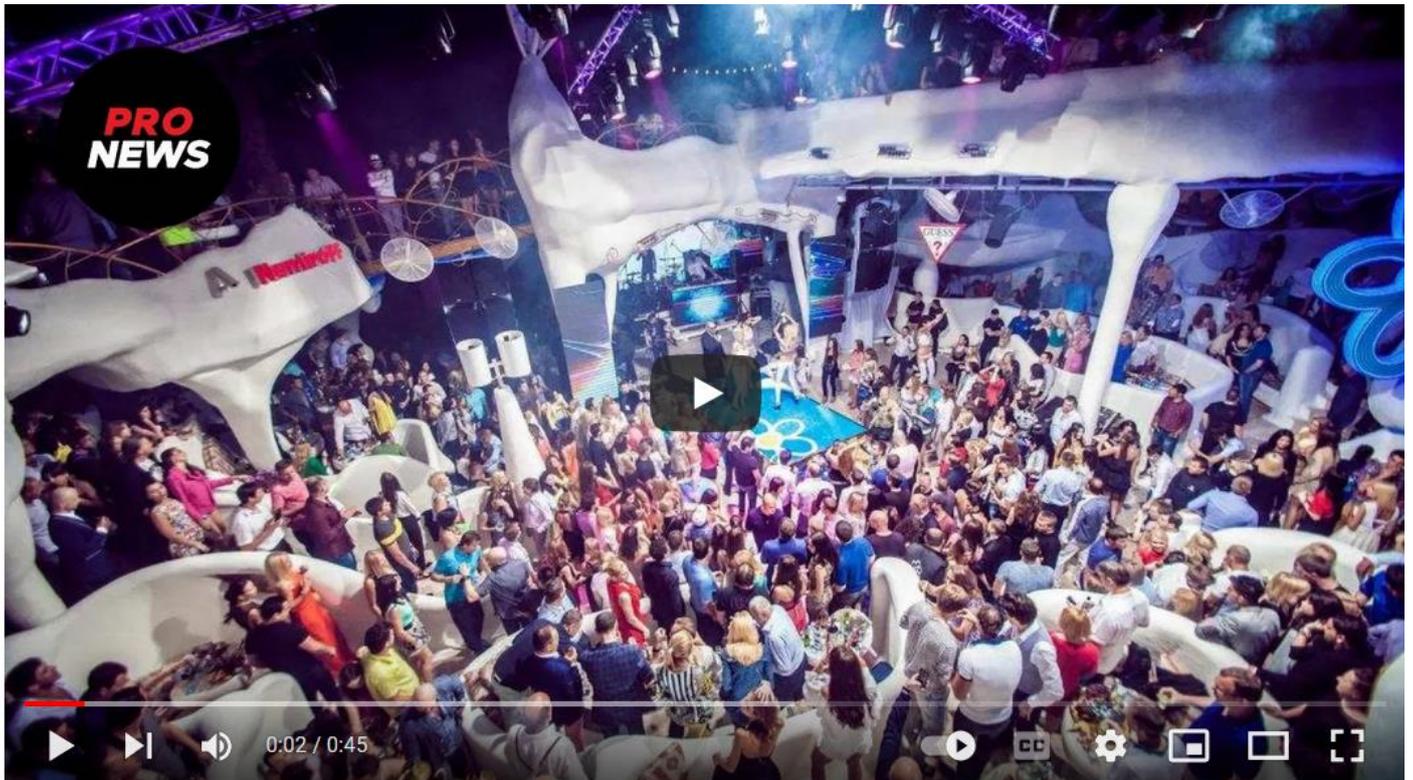
Jens Stoltenberg: “Training Ukrainian pilots on Western F-16 fighter jets does not make NATO a party to the conflict!”

Same assurance to Denmark and The Netherlands that are willing to provide 45 F-16 AM/3M?

Older men declare war. But it is the youth that must fight and die.
- Herbert Hoover



Who is fighting in the Ukrainian war?





T - NEWS

ISIS using Afghanistan as staging ground for terror plots after US withdrawal: report **No Surprise**

Source: <https://www.foxnews.com/world/isis-using-afghanistan-staging-ground-terror-plots-us-withdrawal-report>

Apr 22 – Leader of Task Force Pineapple Scott Mann reacts to statements from the Biden administration on Afghanistan withdrawal and claims made that American taxpayers could be funding Taliban. Not even two years have passed since President Biden's fumbled military [withdrawal from Afghanistan](#), and already Islamic State terrorists are using the country to plot attacks across Europe and Asia. Islamic State Khorasan Province is also conducting "aspirational plotting" against the United States, according to leaked Pentagon documents reported by The Washington Post. The leaked classified intelligence was found on the Discord social media platform, where suspected leader [Massachusetts Air National Guardsman Jack Teixeira](#) allegedly posted sensitive information online for more than a year. The Washington Post reports that documents from those leaks show that U.S. intelligence was aware of ISIS-K plots targeting embassies, churches, business centers and the FIFA World Cup soccer tournament, which attracted a crowd of more than two million people last fall in Qatar. "Pentagon officials were aware in December of nine such plots coordinated by ISIS leaders in Afghanistan, and the number rose to 15 by February, says the assessment, which has not been disclosed previously," the newspaper reported. The assessment is reportedly labeled top-secret and bears the logos of several Department of Defense organizations. "ISIS has been developing a cost-effective model for external operations that relies on resources from outside Afghanistan, operatives in target countries, and extensive facilitation networks," the assessment reads, according to The Washington Post. "The model will likely enable ISIS to overcome obstacles — such as competent security services — and reduce some plot timelines, minimizing disruption opportunities." More classified intelligence reports [leaked on Discord](#) show that Islamic State terrorists in other parts of the world are seeking to obtain expertise to create chemical weapons and operating drone aircraft. They also reveal "a plot in which the group's supporters would kidnap Iraqi diplomats in Belgium or France in a bid to secure the release of 4,000 imprisoned militants," according to the Washington Post. Fox News reached out to the Department of Defense to confirm details of The Washington Post's reporting. National Security Advisor Jake Sullivan did not immediately respond to a request for comment. The report comes months after Gen. Michael Kurilla, leader of U.S. Central Command (CENTCOM) [testified before the Senate Armed Services Committee](#) on ISIS-K's operations in Afghanistan.

Kurilla told lawmakers that the Pentagon estimated ISIS-K would be ready to conduct "an external operation against U.S. or Western interests abroad in under six months with little-to-no warning." "In a classified [hearing], I will talk about why I make that assessment. It is much harder for them to be able to do that against the homeland," the general added.

President Biden's handling of the U.S. military withdrawal from Afghanistan in 2021 was widely criticized after the operation proved to be both deadly and chaotic. Thirteen U.S. service members were killed in a suicide bombing while protecting the evacuation at the Kabul airport. Meanwhile, tens of thousands of Afghans surged to the airport seeking to escape the Taliban, with some even clinging to U.S. transport planes as they took off. House Republicans have launched several investigations into the Biden administration's actions, [calling the episode](#) a "stunning failure" of leadership. Earlier this month, the White House [released its own assessment](#) of the withdrawal from Afghanistan, which mostly blamed former President Trump's administration.

"President Biden's choices for how to execute a withdrawal from Afghanistan were severely constrained by conditions created by his predecessor," the White House review said.

US and Taliban join forces to battle ISIS in Afghanistan after disastrous withdrawal: report **SURPRISE SURPRISE**

Source: <https://nypost.com/2023/04/23/us-taliban-ironically-aligned-in-fight-against-afghanistan-isis-affiliate-report/>

Apr 23 – Afghanistan has devolved into a haven for ISIS terrorists since the precipitous US withdrawal in 2021 — but the US has found the new Taliban government an unlikely ally in the fight against the jihadists, a report said.

The Taliban — an Islamic fundamentalist group that seized power after the withdrawal — has been battling back against the progress of Islamic State-Khorasan, also known as ISIS-K, a senior US defense official [told the Washington Post](#).

The dueling groups of religious fanatics are openly warring, the official said.

ISIS-K has assaulted ethnic minorities and government institutions, while the Taliban has retaliated by hitting Islamic State hideouts.

"I would never want to say that we had mortgaged our counterterrorism to a group like the Taliban, but it's a fact that, operationally, they put pressure on ISIS-K," the official told the Washington Post. "In a strange



world, we have mutually beneficial objectives there.” The defense official’s comments came in response to a [leaked Pentagon assessment](#) that said Islamic State terrorists are once again using Afghanistan as a staging ground for plots against America, Europe and Asia, the newspaper said. The report portrayed the resurrected threat as a growing security concern.

US intelligence findings enumerated specific plans to target churches, embassies, business centers and the World Cup soccer tournament. Pentagon officials knew about nine ISIS-coordinated plots in December and said that number had risen to 15 by February. The White House declined to verify the assessment’s authenticity, although it was labeled top-secret and bore the logo of Defense Department organizations.

The classified documents were allegedly posted online as part of a [wider leak by Massachusetts Air National Guard member Jack Teixeira](#), who federal authorities say [shared them with friends on a private Discord server](#).

Current and former US officials told the Washington Post that the leaked reports buttress earlier warnings that terrorist cells could return to life in Afghanistan.

The Biden administration defended its record on counterterrorism in a statement to the newspaper.

The United States “maintains the ability to remove terrorists from the battlefield without permanent troop presence on the ground,” National Security Council spokesperson Adrienne Watson told the Washington Post.

As proof, Watson cited a US Special Operations raid in Somalia that killed Bilal al-Sudani, an ISIS leader.

The US-led defeat of the self-proclaimed Islamic caliphate in 2019 has further complicated ISIS’s mission. It can no longer find safe locations from which to operate, the leaked documents said.

A senior US defense official told the Washington Post that the number of Islamic State plots has historically ebbed and flowed. Many never occur. “We see a lot of discussion and not a lot of action at this point,” the official said.

Muslim shooter = entire religion guilty

Black shooter = entire race guilty

White shooter = mentally troubled lone
wolf

Germany arrest Syrian suspected of planning Islamist attack

Source: <https://thehill.com/homenews/ap/ap-international/germany-detains-syrian-suspected-of-planning-islamist-attack/>

Apr 25 — German authorities have arrested a Syrian man on suspicion of planning to carry out an explosives attack motivated by Islamic extremism, officials said Tuesday.

Federal police said officers arrested the 28-year-old man early Tuesday in the northern city of Hamburg based on a court-issued warrant for suspected terrorism financing offenses.

Investigators say the man is suspected of trying to obtain substances online that would have allowed him to manufacture an **explosive belt** “in order to carry out an attack against civilian targets.”

Police say the man was encouraged and supported in his action by his 24-year-old brother, who lives in the southern town of Kempten. German news agency dpa reported that the younger man was also detained. The brothers, whose names weren’t



immediately released, were described by federal police as being motivated by “radical Islamist and jihadist” views. Authorities said they had no information indicating a concrete target for the planned attack.

Police searched properties in Hamburg and Kempten, seizing large amounts of evidence including chemical substances, officials said. Some 250 officers were involved in the operation.

Germany’s top security official thanked police, saying their actions “have prevented possible Islamist attack plans.” Interior Minister Nancy Faeser said the case showed that the danger of Islamic extremism remained high and pledged that German security agencies would continue to take all information about such threats seriously.

“Germany remains a direct target of Islamist terrorist organizations,” she said. “Islamist-motivated lone perpetrators are another significant threat.”

In a separate case, authorities in western Germany said Tuesday that they are investigating a possible extremist motive in an attack at a gym in Duisburg last week. A 26-year-old Syrian was arrested days after the attack, in which four men were seriously wounded and one of them remains in life-threatening condition.

Duesseldorf prosecutors said a review of the suspect’s cellphone indicated that “there may have been an Islamist motive” behind the attack, but declined to elaborate. The man is currently being held on suspicion of attempted murder and other offenses.

EDITOR’S COMMENT: What if the two brothers, their family, first- and second-degree relatives, and close friends were immediately deported to Syria? Because one or more of them were aware of their actions since they tend to live either together or in the same building or neighborhood. Perhaps this is a good motivation to control those intending to go suicidal or commit terrorism. Long trials cost citizens money and they are not therapeutic but symptomatic.

Light-Based Defensive Device Could Help Stop Attacks from Assailants

Source: <https://www.homelandsecuritynewswire.com/dr20230426-lightbased-defensive-device-could-help-stop-attacks-from-assailants>

Apr 26 – Brian Arwari grew tired of what he calls “the cycle.”

“We all know the cycle,” said Arwari, associate clinical professor in the Department of Kinesiology and Sports Sciences at the [University of Miami](#) School of Education and Human Development, and head of the Neurocognitive Lab.

“There is a mass shooting. Key people offer thoughts and prayers. There may be a protest and people say, ‘this is ridiculous and it must stop.’ Then people forget until the next time it happens,” he said.

In 2020, the most recent year for which complete data is available, 45,222 people died from gun-related injuries in the United States, according to the Centers for Disease Control and Prevention. This excludes suicides.

Churches, banks, shopping malls, offices, schools, synagogues, and convenience stores are some of the venues that have been the sites of major shootings. In 2023, there have been 146 mass shootings—an incident where three or more people die—according to the Gun Violence Archive.

Wanting to stem what he sees as an epidemic in shootings, Arwari, working with graduate engineering student Luis Carlos Diaz, has designed a device called Lightguard, which—when triggered by a well-placed button—can temporarily dazzle an assailant.

The **Lightguard Security System** is a light-based defensive device that produces a flashing pattern of thousands of lumens in output, temporarily impairing an attacker’s vision. The assailant is functionally blind



for about 10 to 20 seconds, with partial visual impairment that may last up to a few minutes. The flashes of light can be repeated to extend the period of disability.

“You can put two, three, five, or 10 light modules at ‘choke points.’ These are areas of a building that people are forced to go through,” said Arwari. Lightguard also functions as an emergency notification system that alerts the police and/or security guards, as well as key people identified by the system, of a potential threat.

Arwari and Diaz have been working on creating Lightguard for the past three years. The venture has been financed by Ernest Bacharach, a Key Biscayne resident, who was a former managing partner with Advent International, a global private equity firm.

Arwari has received a patent for the system from the U.S. Patent and Trademark Office. He created the device working on the premise that a human’s nervous system can oscillate between two extremes of a continuum.

“You are either in rest or digest, which means that you are relaxed. On the other end, you are in fight or flight mode,” he said. Lightguard switches the attacker into the flight mode, he added. The light startles the attacker and most times when they are startled, they will run away. “The assailant goes from being the hunter to being the hunted,” he said.

In addition to public spaces, Lightguard can be installed in private homes or buildings to deter home invaders or robbers, according to Arwari. In a home with two floors, the light modules can be placed at the top of the stairs. In a convenience store, the modules could be hung behind the cashier. “The only way to stop an assailant is to defend yourself,” said Arwari. “If you have to go into hand-to-hand combat with someone with a gun you are at a great disadvantage. But if that person is visually impaired, then you have a greater chance.” As an engineering student, Diaz worked on the electronic and technological part of Lightguard.

“These lights are extremely strong and they flash in a random pattern,” Diaz pointed out.

Lightguard has been tested by local police departments and SWAT teams, noted Arwari. He said many of the law enforcement agencies believe the system could be effective.

Games fakers: Olympic ‘pseudo-volunteers’ plan to disrupt Paris 2024

Source: <https://www.theguardian.com/sport/2023/apr/26/games-fakers-olympic-pseudo-volunteers-plan-to-disrupt-paris-2024-saccage>

Apr 26 – An anti-Olympics collective is aiming to disrupt next year’s Paris Games by recruiting fake volunteers. **Saccage 2024**, which



translates as “Destruction 2024”, has already generated a buzz on social media with its “pseudo-volunteer” plan, saying they should be paid for their work.

“Volunteering is supposed to be for the common good and that is not the case for the [Olympic Games](#) – it does not have charitable aims,” said Saccage 2024 member Arthur, who declined to give his family name.

The 25-year-old, an environmental activist who lives in Saint-Denis, where the bulk of the Games will be organised, plans to withdraw at the last minute or try to disrupt the Games from within if he is selected to be a volunteer. Saccage and other critics of the Paris Olympics say the event will negatively affect the environment and benefit big businesses and elites, rather than locals.

Paris 2024 organisers did not immediately respond to a request for comment but have said in the past that they would organise “popular and spectacular Games” that will bring in millions of visitors.

Olympics organisers are looking to recruit 45,000 volunteers. They have said that volunteering – also widely used in past Games – is an opportunity to participate in the Olympics. The deadline for applications



is 3 May. Paris 2024 have said they would take the time to ensure the “sincerity” of candidates and that volunteers would have a background check. Candidates are required to demonstrate their motivation and experience, and there will be interviews for some roles. Volunteers will receive uniforms, free travel and meal vouchers.

The Games are more than a year away and there is no certainty activists will be able to generate the numbers needed to disrupt events. However, the plan reflects a widespread discontent in [France](#), with huge protests over a law increasing the pension age and hashtags linking opposition to the reform and the Olympics.

Saccage could not say how many had signed up as would-be disruptors, but said it saw a rise in interest after President [Emmanuel Macron rammed through the pensions law](#) without a final vote in parliament.

Jan, a library worker in his 50s, said he came across the idea on Twitter after France’s Constitutional Council verdict gave its green light to the law. He had been striking and protesting against the pensions law, and said the fake volunteer plan was a “fun and constructive” way to continue the protests and, at the same time, oppose the Games and their impact.

This would not be the first time the Olympic Games have been used by activists to further their causes, said Jules Boykoff, a political scientist at Oregon University. “Money spent on the Olympics is not spent on basic needs such as housing, education, healthcare and pensions. The Games are a high-profile target for activist ire,” he said.

The resistance

[Association NON Aux JO2024 à Paris](#) (No to the 2024 Paris Olympics Association) is a collective of people opposed to the Games on the basis they will be a “fiscal, economic, and ecological disaster.” When Paris was bidding for the Olympics, the group launched a petition demanding the public be able to weigh in on the decision to host via a referendum.



Not opposed to the Olympics per se, the [Comité de Vigilance JO 2024 à Saint-Denis](#) (The Saint-Denis Vigilance Committee for the 2024 Olympic Games) is concerned about the effects of hosting on the Saint-Denis neighborhood and broader Seine-Saint-Denis department, which is one of the poorest counties in France.

[Saccage 2024](#) opposes the ecological and social devastation caused by the Olympic Games in Paris in 2024. Composed of residents of Seine-Saint-Denis and its surroundings, as well as additional collectives and associations, the coalition defends the spaces where participants live, meet, forge links, help each other and have fun.



[Jardins à Défendre](#) (JAD) is an occupation of the Aubervilliers Workers Gardens that aims to protect these community green spaces from plans to replace some garden plots with an Olympic-standard training pool and solarium.



Security authorities warn: Why the IS terror threat is increasing

Source: <https://globeecho.com/news/europe/germany/security-authorities-warn-why-the-is-terror-threat-is-increasing/>

Apr 27 – German security authorities are warning of the growing threat of attacks by the Afghan branch of the terrorist group “Islamic State”. The group is currently expanding its network at high pressure.

A few years ago, such a report would have been unthinkable: the Taliban are said to have killed an Islamist terrorist in Afghanistan at the beginning of April. A commander of the terrorist group “Islamic State” (IS). Namely the alleged mastermind behind the bomb attack at Kabul Airport in August 2021, in which more than 150 people, including 13 US soldiers, were murdered.

John Kirby, spokesman for the US National Security Council, announced the death of the IS terrorist on Wednesday. And it almost seemed as if the US government was extremely grateful to the Taliban, the new Afghan rulers, for this successful “anti-terrorist operation” – and in fact that’s a bit like that. Although



the Taliban are also characterized by a radical Islamic ideology, they are enemies of the IS jihadists, and the two groups are fighting each other bitterly.

Concern about IS terror in Germany too

According to Western security authorities, however, the IS terrorists pose a much greater threat. In Germany, too, the Office for the Protection of the Constitution and the police authorities are currently very concerned about the growing risk of Islamist attacks in this country. In Syria and Iraq, the terrorist group IS was largely crushed or at least pushed back significantly. The offshoot of the network in Afghanistan, the so-called IS province “Khorasan” (ISPK), on the other hand, puts the German counter-terrorists on alert.

“The strengthening of this group in Afghanistan increases the threat situation in Germany,” warned Thomas Haldenwang, President of the Federal Office for the Protection of the Constitution, a few weeks ago. And the commander of US Central Command, General Michael Kurilla, recently predicted at a hearing before the US Senate that the Afghan IS offshoot would probably be able to attack Western targets outside of Afghanistan in less than six months .

The IS offshoot Khorasan is responsible for hundreds of attacks in Afghanistan – and is also active in Germany.

ISPK network is said to be planning attacks in the West

According to representatives of the local security authorities, it is definitely more than the usual “background noise” in the Islamist scene that is currently causing increased alertness. According to Western intelligence services, the Afghan IS branch ISPK has built up a network of supporters and helpers over the past few months in order to be able to carry out terrorist attacks abroad, above all in Europe.

German intelligence officers warn that the group is working flat out to carry out larger attacks in the West. On the one hand, radicalized Islamists in Europe should be specifically addressed via chat groups and encrypted communication channels, recruited and instructed, for example, in the manufacture of explosives and bombs. There have also been cases like this in Germany recently.

In September 2022, two young Islamists were arrested in Iserlohn and Bremerhaven, who are said to have communicated with IS members in Afghanistan via mobile phone chats. Among them was a high-ranking IS commander, a native Tajik who had last lived in Germany and then left for Afghanistan.

Foundation of a German IS cell planned?

According to the Attorney General, the young people who were arrested recruited other Islamists via chat groups, called for attacks and distributed Islamist propaganda and bomb-making instructions. The 17-year-old terror suspect from Bremerhaven is said to have been instructed by his IS contact in Afghanistan to set up an IS cell in Germany and act as its “emir”. At times he is said to have led a German-language telegram group with more than 30 members.

The 16-year-old suspect from Iserlohn, on the other hand, is said to have planned a bomb attack, but is said to have moved away from this plan and is said to have considered carrying out a knife attack on police officers instead. The two underage Islamists have now been charged before the Hanseatic Higher Regional Court in Hamburg.

In the security authorities, however, concern about attacks by IS terrorists is also increasing because there are supposed to be findings that potential terrorist cells are being smuggled into Europe. In some cases this should already have happened. According to security circles, the ISPK has already exploited the recent movement of refugees to smuggle in terrorists willing to attack.

More than a dozen attack plans known

Documents recently published by the US Department of Defense show that the US secret services are said to have information that ISPK’s terror planners are actively promoting so-called “external operations”, i.e. attacks abroad. According to one of the documents from February, more than a dozen such plans have become known so far.

The US services are said to have learned that the ISPK was apparently planning to carry out a suicide attack during the 2022 World Cup in Qatar. Other planned attacks are said to have targeted Dutch and Swedish diplomatic facilities in Russia, Tajikistan and Azerbaijan in response to right-wing extremists burning the Koran in the two countries.

In north-eastern Syria, many people fear a large-scale comeback by IS.

Also drone strikes considered

In addition, ISPK members are said to have intensively discussed the possibility of bomb attacks using drones equipped with explosives. To this end, the Islamists are said to have already contacted a person in Ukraine, where civilian drones have been converted into armed flying objects and used with great success for some time. The terrorist network is also said to have contacted a sympathizer in Great Britain



in the summer of last year who claimed to have skills in the fields of aeronautical engineering and chemistry. The IS contacts are said to have encouraged the Islamists to make their knowledge available via online communication instead of making the risky trip to Iraq or Afghanistan.

Young people should carry out assassinations in Germany

In the case of the two underage Islamists from Bremerhaven and Iserlohn, the ISPK instructors are said to have advised against traveling to the conflict area. Instead, the two young people are said to have been called upon to carry out assassinations against "infidels" in Germany.

It is not yet certain whether the charges against the Islamists in Hamburg will be admitted. They are still in custody – the young people are said not to have moved away from their jihadist attitudes even in prison. The boy from Bremerhaven is said to have painted an IS flag and written an Islamist battle song. The suspect from Iserlohn, in turn, is said to have continued to express radical Islamic ideas during visits to prison.

Crisis in France: Author Writes on Islamism, Needs Police Protection

By Soeren Kern

Source: <https://www.meforum.org/64376/crisis-in-france-author-writes-on-islamism-needs>

Apr 27 – Islamists have leveled death threats at an influential French academic, forcing her to live under police protection after writing a hard-hitting book about the Muslim Brotherhood's strategy to Islamize Europe. Islamist activists have, as expected, denounced her work as "Islamophobic," but some Islamists and non-Muslim leftwing academics have on this occasion taken the invective to another

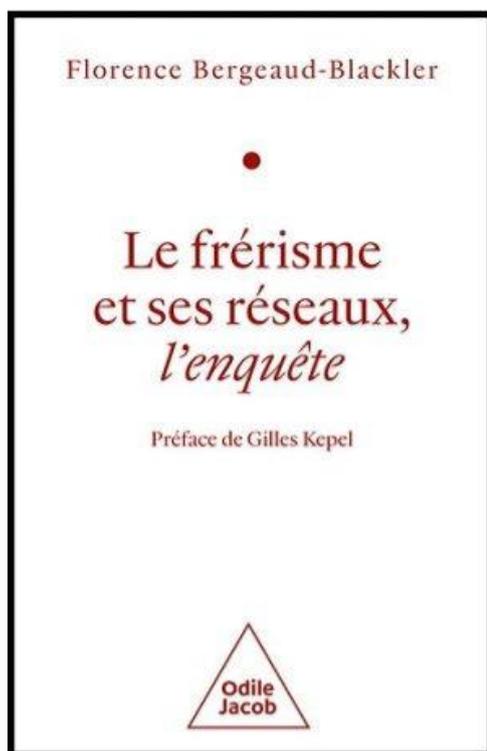
level by falsely comparing the scrutiny of Islamism to Nazism.

Florence Bergeaud-Blackler, an anthropologist at the French National Center for Scientific Research (*Centre national de la recherche scientifique, CNRS*), one of the leading research institutions in Europe, is a long-time observer of the Islamist landscape in the West. In January 2023, she published her magnum opus, [*The Brotherhood and its Networks: The Investigation*](#) (*Le Frérisme et ses réseaux, L'Enquête*), a 400-page book that meticulously dissects the Muslim Brotherhood's efforts to spread Islamism in Europe.

The recent publication of [*The Brotherhood and its Networks: The Investigation*](#) (*Le Frérisme et ses réseaux, L'Enquête*) has earned its author, Florence Bergeaud-Blackler, opprobrium and death threats from Islamists outraged by its message.

Far from being an anti-Islam polemic, Bergeaud-Blackler's book — whose preface was written by Gilles Kepel, a highly respected French political scientist who has [written](#) more than a dozen books about Islamism and Jihadism — offers a dispassionate and scholarly presentation of the Muslim Brotherhood's history, doctrine, structure, and modus operandi. She rigorously documents how the Brotherhood systematically extends its influence into the heart of Western societies through entryism, a strategy of infiltrating core governmental and non-governmental institutions to propagate its ideology, which Bergeaud-Blackler calls "Brotherism" (*Frérisme*) and describes as "an intellectual politico-religious project aimed at establishing an Islamic world."

Bergeaud-Blackler also shows how the Brotherhood and its many affiliated non-governmental organizations have infiltrated key institutions of the European Union to divert millions of euros that were originally intended to fund studies on Islamism in Europe to focus on "Islamophobia" instead. She further documents how the Brotherhood has penetrated the French university system to influence future generations. Bergeaud-Blackler's book has received significant media attention and many positive reviews. The center-right daily newspaper *Le Figaro* [described](#) her work as "immensely meritorious" because it "reveals how the Muslim Brotherhood, the most secretive of Islamist organizations, succeeded in making the European Union the primary base of their project to conquer the world." The conservative news magazine *Le Point* [interviewed](#) Bergeaud-Blackler and boldly titled it: "The Muslim Brotherhood's Weapon is Subterfuge." The classical liberal *Atlantico* [published](#) a lengthy excerpt of her book that explains how "Islamophobia is the refined



weapon at the heart of the Muslim Brotherhood's strategy to conquer Europe." The left-leaning news magazine *Marianne*, in a friendly interview with Bergeaud-Blackler, [noted](#) that "the Muslim Brotherhood wants to transform European society to make it Sharia-compatible." The smear campaign aimed at destroying Bergeaud-Blackler's reputation and credibility began in earnest on March 7, when *Mediapart*, a leftwing online investigative journal, [published](#) a hit piece — "The Islamization of France: Actors and Sources of a Dangerous Refrain" — that accused her of "demonizing political Islam," "criminalizing whole sections of French society for whom Islam is a component of their identity," and "Nazism." The essay — co-authored by François Burgat, a 75-year-old apologist for the Muslim Brotherhood who is known for his radical anti-Zionism, and Souhail Chichah, a Belgian-Moroccan economist who [doubles](#) as an Islamist activist — [compared](#) Bergeaud-Blackler to Georges Vacher de Lapouge, a 20th century French anthropologist whose racial theories strongly influenced Nazi ideologues and culminated in the Nazi policy of exterminating European Jews.

Burgat — a former CNRS research director who is currently the [president](#) of the Arab Center for Research and Political Studies in Paris (*Centre arabe de recherches et d'études politiques de Paris, CAREP*), a group [funded](#) by the Doha Institute and Qatar Charity, which [supports](#) Brotherhood networks around the world — is leading the campaign against Bergeaud-Blackler because her book documents how Burgat and other French academics have been Brotherhood skills for many years.

On March 14, Rafik Chekkat, a French-Algerian anti-"Islamophobia" activist, [published](#) a lengthy review of Bergeaud-Blackler's book on *Orient XXI*, a French online journal that focuses on Islam and the Middle East and is well known for its anti-Semitism and anti-Zionism. He [compared](#) Bergeaud-Blackler to Édouard Drumont, a late 19th century anti-Semitic polemicist whose best-selling book, *Jewish France (La France juive)*, argued for the exclusion of Jews from French society. Drumont subsequently was a leading protagonist in the [Dreyfus Affair](#), in which a Jewish French military officer was wrongfully convicted of treason. "Florence Bergeaud-Blackler shares with Drumont an intention, a form, and a method," Chekkat wrote, "to unravel the 'Brotherhood' element — which was once the Jewish element — in society." In a tweet, Chekkat [added](#) that Bergeaud-Blackler's book is "a delirious work, which recycles all the clichés about the manipulative, lying and intriguing Jew, applied this time to Muslims. As Edward Said brilliantly noted, 'Popular anti-Semitic animosity has passed smoothly from Jew to Arab, since the image is almost the same.'"



Florence Bergeaud-Blackler described the efforts to assassinate her character as "staggering" and "despicable."

A day after Chekkat's article was published, Bergeaud-Blackler's lawyer, Thibault de Montbrial, [revealed](#) that his client had received death threats and was under police protection. "The public attacks by Islamists since the release of her book on the Muslim Brotherhood has reached a dangerous level," he [tweeted](#). Bergeaud-Blackler told FWI that "these comparisons of my latest book with Nazism, the extreme right, [Édouard] Drumont or [Georges] Vacher de Lapouge come from academic spheres. They now circulate top-down in the most offensive strata of the internet." She described the efforts to assassinate her character as "staggering" and "despicable."

An open letter of support for Bergeaud-Blackler signed by more than 170 academics [stated](#) that "she now suffers the fate of the few researchers and scientists in Europe who openly expose the proselytism of the Muslim Brotherhood within the European Union. The Brothers and their allies do not like anything that attracts light to their affairs and are unhappy about the influence that her book enjoys." The Belgian-Moroccan anthropologist Fadila Maaroufi, in an article published by *Atlantico*, [noted](#) that Bergeaud-Blackler's book "hit the nail on the head" and that those who are attacking her are paradoxically validating the thesis of her work. "What is at stake is freedom of conscience and academic freedom, which have been undermined for many decades," she warned. "Silence makes us accomplices."

Soeren Kern is a Middle East Forum Writing Fellow.

Islamic Terrorist in Jan. 25 Attacks in Spain Said Christian Faith 'Must Be Eliminated'

Source: <https://www.ncregister.com/cna/islamic-terrorist-in-jan-25-attacks-in-spain-said-christian-faith-must-be-eliminated>

Apr 28 – On Jan. 25 a young Moroccan national identified as Yassine Kanjaa carried out jihadist attacks in Algeciras, Spain, killing a sacristan and seriously wounding a priest in two different incidents.





Church of Our Lady of La Palma in Algeciras, Spain. (photo: Faconamanni / (CC BY-SA 3.0) Wikimedia Commons)

The General Commissariat of Information, an intelligence service under Spain's National Police, compiled two reports on the attacks dated Jan. 29 and Jan. 30. *Europa Press* recently gained access to them and on April 26 published details reconstructing events. The reports state that according to Father Antonio Rodríguez Lucena, who was wounded, the attacker was not provoked: "Nobody did anything that could bother him."

In his testimony, the priest said that Kanjaa told a parishioner that "the Christian faith is negative and must be eliminated." According to the reports to which *Europa Press* has had access, the attack began at 6:30 p.m. local time when Kanjaa entered San Isidro Church in Algeciras and began to argue with the parishioners.

After the terrorist stated his desire to eliminate the Christian faith, he "vehemently" said that "the only religion to follow is the Islamic religion," according to the testimony of the priest who survived the attack.

The woman who opened the church daily testified that the attacker took a Bible that was there and started hitting the seating with it. She confronted the man, managed to snatch the Bible away from him, and asked him to leave.

At 7 p.m. the individual returned to the area outside the church. The faithful who were attending Mass could hear him shouting in Arabic. After Mass, Father Rodríguez wanted to find out what was happening.

At that moment, "the suspect, carrying a large machete in his hand, suddenly attacked the priest causing serious injuries," the report states.

In his statement to police, the priest said that "a man dressed in black entered, who was heading towards the altar without saying anything."

The priest waited for him at the altar with the idea of having an open way to escape. When the man got to the altar he brandished his weapon, which the priest hadn't realized he was carrying.

When the priest tried to flee, he stumbled and felt the weapon strike him. The parishioners attended to the wound and shut the church door so the attacker couldn't get back inside.



The weapon, according to another witness, was “a large blue machete.” Others described it as a “knife” or “a kind of katana,” a curved Japanese sword.

After this attack, Kanjaa went to the Virgin of La Palma church located about 650 feet away. According to a witness, along the way he ran into a Moroccan passerby, whom without saying a word he punched in the face, breaking his glasses. He then struck him twice more and accused him of practicing the wrong religion.

When he got to the Virgin of La Palma church, the attacker saw the sacristan, Diego Valencia, leaving through a back door of the church. According to the police, Kanjaa struck him with several initial blows with his weapon. The sacristan tried to flee but the attacker caught up with him in Plaza Alta, threw him to the ground, gripped the katana with both hands and “raising his gaze to the sky and shouting a few words in Arabic, among which was heard ‘Allah,’ dealt him one last fatal blow.”

According to a witness, Valencia tried to defend himself with a chair and he asked for the police to be called. Shortly afterwards the attacker was arrested without offering any resistance.

The Spanish Bishops’ Conference condemned the attacks and expressed their condolences to the families of the victims.

Swedish telecom giant Ericsson patronizes Al Qaeda

By Salah Uddin Shoaib Choudhury

Source: <https://www.weeklyblitz.net/counterterrorism/swedish-telecom-giant-ericsson-patronizes-al-qaeda/>



Apr 29 – According to [Swedish newspaper Dagens Industri](#), Swedish telecom giant Ericsson is said to have assisted radical Islamic jihadist outfit Al Qaeda in Iraq and Afghanistan with [high-tech equipment](#) continuously for nine years – during the years 2008-2017. It is also learnt, Ericsson allegedly preferred to [give Al-Qaeda the technology equipment](#) rather than cash in order to continue its operations in Iraq and Afghanistan undisturbed.

A former colonel, [who is one of several insider witnesses](#) involved in a lawsuit against the Swedish telecom giant filed by lawyers representing relatives of Al Qaeda’s victims told the court that the equipment provided by Ericsson to Al Qaeda include trucks, signal communication equipment, telephones, computers and satellite nodes placed in a special “stashes” where Al Qaeda members then retrieved them. Swedish newspaper Dagens Industri tried to get comment from Ericsson, which was declined.



This is not the sole case where Ericsson has been in the spotlight for financing radical Islamic militancy and terrorism. [According to SVT Nyheter](#) newspaper, Ericsson was involved in corruption in Iraq and financing Islamic State (ISIS).

In February 2022, the Swedish television program Uppdrag Granskning showed that the company may have used bribes to finance the Islamic State – another radical Islamic militancy outfit. The purpose of the bribes was allegedly to obtain permission to continue building mobile phone masts in the region.

On March 1, 2022 the US Department of Justice announced that Ericsson, by withholding information about Iraq, has violated the settlement from 2019.

A settlement that came about after corrupt deals in China and Indonesia, among others. Ericsson then paid Swedish Krone (SEK) 10 billion in fines and entered into an agreement to report any new suspicion of bribery. Ericsson risks new fines. After the disclosure in February 2023, until the general meeting in March, Ericsson's share plummeted – a sharp drop of over 30 percent, which corresponds to SEK 100 billion in market capitalization.

Earlier on October 19, 2022, [SVT Nyheter reported](#) that the US authorities promised tougher measures against companies that bribe. In particular, against companies that violate settlements with the US government – such as Swedish telecom giant Ericsson.

The report further said quoting Peter Utterström, lawyer and corruption expert that Ericsson's Chief Executive Officer Börje Ekholm was under the potential risk of facing prosecution and imprisonment.

In August 5, 2022, the International Consortium of Investigative Journalists (ICIJ) [in a report said](#), according to the [lawsuit against Ericsson](#), the company hired consultants and subcontractors who used an "offloading scheme" to finance terrorism.

Under such a scheme, the lawsuit said, companies negotiate with a trusted intermediary ally to "offload" an illicit payment stream to that intermediary.

"Such ally, in turn, typically does not have the same legal exposure as the partner doing the offloading (e.g., the difference between a US company and an Iraqi firm), and therefore agrees to serve the offloading function in exchange for some benefit, such as off-books cash payoffs, commercially unreasonable terms (in the ally's favor) on another aspect of their contract, free goods, and so on", the lawsuit said. When the local provider Asiacell made protection payments to al-Qaeda, al-Qaeda-in-Iraq, and Islamic State, according to the lawsuit, it often did so through Ericsson or its subcontractors.

Likewise, Ericsson used Korek and others in an "offloading" strategy to pass illicit payments to militants, the lawsuit said.

The [alleged payments described](#) in the lawsuit [helped finance](#) suicide attacks, hostage taking, torture, roadside bombs and beheadings in Iraq, Afghanistan and Syria and claimed hundreds of lives. To date, Al-Qaeda, Al-Qaeda-in-Iraq, and the Islamic State have collectively killed, or helped kill, more than 2,500 US service members and wounded roughly 30,000 more throughout the Middle East, Europe, Asia and Africa, the lawsuit says.

The Wall Street Journal [in a report said](#), the suit follows [Ericsson's admission](#) in February that it had found "serious breaches of compliance rules" in Iraq, including evidence of corruption-related misconduct. Ericsson has been [active in the country](#) following the lifting of a United Nations embargo that led to the reopening of the country's telecommunications equipment market.

The Anti-Terrorism Act (ATA), is sometimes known, [allows victims to seek](#) large damages from perpetrators and parties that aid them. The law has led to major judgments against foreign states, some in the billions of dollars.

Salah Uddin Shoab Choudhury is an internationally acclaimed multi-award-winning anti-militancy journalist, writer, research-scholar, counterterrorism specialist and editor of Blitz. He regularly writes for local and international newspapers on diversified topics, including politics and counterterrorism.

Terrorism: Türkiye announces "neutralization" of IS leader

Source: <https://www.indonewyork.com/breaking/terrorism-turkiye-announces-neutralization-of-is-leader-h86820.html>

Apr 30 – According to government information, the Turkish secret service "neutralized" the "so-called leader" of the terrorist militia Islamic State (IS) during a mission in Syria. According to the state news agency Anadolu, Turkish President Recep Tayyip Erdogan said on Sunday evening that Abu al-Husain al-Husaini al-Kuraishi had been persecuted for a long time. The term "neutralization" probably meant the killing of al-Kuraishi. In November 2022, IS proclaimed him the new "Emir" of the terrorist militia. Experts assumed that the name was a combat name. For years, the IS controlled large areas in Iraq and in the neighboring civil war country Syria. In the meantime, the extremists have lost their dominion again. However, IS cells are still active in both countries. Turkey occupies areas in northern Syria and carries out military actions there mainly against the Syrian Kurdish militia YPG. Suspected supporters of IS are regularly arrested in Germany. The Turkish



government also blames the militia for a 2016 attack on Istiklal shopping street that killed four and injured 39 people.

May 01, 2023 12:41 PM
Jeff Seldin

US Not Backing Turkish Claims Islamic State Leader is Dead



A house north of the town of Aleppo, Syria where Islamic State leader, code-named Abu Hussein al-Qurayshi, had been killed by the Turkish intelligence agency, MIT, is seen Monday, May 1, 2023.

EDITOR'S COMMENT: The position of the house and the surrounding environment makes a direct approach very difficult. A man on the terrace could easily surveil the entire area. Most probably the alleged terrorist activated a suicide vest or an IED that caused the damages observed in the photo.

At Least 8 Dead, 13 Wounded in 2nd Mass Shooting in Serbia

Source: <https://www.voanews.com/a/at-least-8-dead-10-wounded-in-2nd-mass-shooting-in-serbia-7079818.html>

May 04 – A shooter killed at least eight people and wounded 13 in a drive-by attack near a town close to Belgrade late Thursday, the second such mass killing in Serbia in two days, state television reported.

The attacker shot randomly at people near the town of Mladenovac, some 50 kilometers south of the capital, the RTS report said early Friday. Police were looking for a 21-year-old suspect who fled after the attack, the report said.

No other details were immediately available, and police had not issued any statements.

School shooting

On Wednesday in Belgrade, a 13-year-old boy allegedly used his father's guns in a school shooting rampage that killed eight of his schoolmates and a school guard. The bloodshed sent shockwaves through the Balkan nation unused to such mass shootings.

Dozens of Serbian students, many wearing black and carrying flowers, paid silent homage Thursday to peers killed a day earlier. The students filled the streets around the school in central Belgrade as they streamed in from all over the city. Earlier, thousands had lined up to lay flowers, light candles and leave toys to commemorate the eight children and a school guard who were killed on Wednesday morning.

The Balkan nation is struggling to come to terms with the school shooting. Though awash with weapons left over from the wars of the 1990s, mass shootings still have been extremely rare — and this is the first school shooting in Serbia's modern history.



ICI C²BRNE DIARY – May 2023

Authorities on Thursday moved to boost gun control, as police urged citizens to lock up their guns and keep them safe, away from children.

[13 years old: killed 8 schoolmates and a school guard](#)

"The Ministry of Interior is appealing to all gun owners to store their guns with care, locked up in safes or closets so they are out of reach of others, particularly children," police said in a statement that also announced tightened controls on gun owners in the future. The shooting Wednesday morning in Vladislav Ribnikar primary school also left seven people hospitalized — six children and a teacher. One girl who was shot in the head remains in a life-threatening condition, and a boy is in serious condition with spinal injuries, doctors said on Thursday morning.



Serbians mourn, donate blood

To help people deal with the tragedy, authorities announced they were setting up a helpline. Hundreds answered a call to donate blood for the wounded victims. A three-day mourning period will begin Friday morning. Serbian teachers' unions announced protests and strikes to demand changes and warn about a crisis in the school system. Authorities shrugged off responsibility, with some officials blaming Western influence rather than a deep social crisis in the country.



because his son allegedly got hold of the guns.

[21 years old: killed 10 and wounded 15 \[update\] in a drive-by shooting](#)

The alleged shooter, whom the police identified as Kosta Kecmanovic, has not given any motive for his actions.

Authorities have said that Kecmanovic is too young to be charged and tried. He has been placed in a mental institution while his father has been detained on suspicion of endangering public security



'Too much violence'

Gun culture is widespread in Serbia and elsewhere in the Balkans: The region is among the top in Europe in the number of guns per capita. Guns are often fired into the air at celebrations and the cult of the warrior is part of national identity. Still, the last mass

shooting was in 2013 when a war veteran killed 13 people in a central Serbian village.

Experts have repeatedly warned of the danger posed by the number of weapons in a highly divided country like Serbia, where convicted war criminals are glorified and violence against minority groups often goes unpunished. They also note that decades of instability stemming from the conflicts of the 1990s as well as ongoing economic hardship could trigger such outbursts. "We have had too much violence for too long," psychologist Zarko Trebjesanin told N1 television. "Children copy models. We need to eliminate negative models ... and create a different system of values."



Did you know?

A knife is a silent weapon, no training needed, discreet and easily concealed, and often "equated" to a firearm when the distance between the attacker and the target is less than 7 meters. That is, the 1.5 seconds it takes the man with the gun in his holster to react is equal to the time it takes the attacker with a knife from 7 meters to charge at him. Both take 1.5 seconds to act from this distance.

8 killed in Texas outlet mall shooting, gunman also dead

Source: <https://www.sbsun.com/2023/05/06/police-responding-to-shooting-at-dallas-area-outlet-mall/>

May 06 — A gunman killed eight people and wounded seven others – three critically – in a shooting Saturday at a Dallas-area mall before being fatally shot by a police officer who happened to be nearby, authorities said.

The gunman stepped out of a silver sedan and began shooting people at the outlet mall, sending hundreds of shoppers fleeing in panic in the latest gun violence to strike the country.

Witnesses who were at the Allen Premium Outlets told The Associated Press they saw multiple victims, including some who appeared to be children, and that they saw a police officer and a mall security guard who appeared to be unconscious on the ground.

Allen police said in a Facebook post that nine victims had been taken to hospitals. Medical City Healthcare, a Dallas-area hospital system, said in a written statement it was treating eight between the ages of 5 and 61. Their conditions were unknown.

Dashcam video that circulated online showed a gunman step out of a vehicle outside the mall and immediately start shooting at people on the sidewalk.

EDITOR'S COMMENT: A Special Issue from back in 2013 when I returned home from Texas. Not many things have changed after 10 years – still, the perception of "it will not happen to us; to our school"!

More than three dozen shots could be heard as the vehicle recording the video drove off.

An Allen Police officer was in the area on an unrelated call when he heard shots at 3:36 p.m., the police department wrote on Facebook.

"The officer engaged the suspect and neutralized the threat. He then called for emergency personnel. Nine victims were transported to local hospitals by Allen Fire Department," the agency wrote in the Facebook post. "There is no longer an active threat."

Mass killings are happening with staggering frequency in the United States this year: an average of about one a week, according to an analysis of The AP/USA Today data.

The White House said President Biden had been briefed on the shooting and that the administration had offered support to local officials. Republican Texas Gov. Greg Abbott, who has signed laws easing firearms restrictions following past mass shootings, called it an "unspeakable tragedy."

A crowd of hundreds of people who had been shopping stood outside, across the street from the mall, Saturday evening. Officers circulated among them asking if anyone had seen what happened.

Fontayne Payton, 35, was at H&M when he heard the sound of gunshots through the headphones he was wearing.

"It was so loud, it sounded like it was right outside," Payton said.

People in the store scattered before employees ushered the group into the fitting rooms and then a lockable back room, he said. When they were given the all-clear to leave, Payton saw the store had broken windows and a trail of blood to the door. Discarded sandals and bloodied clothes were laying nearby.

Once outside, Payton saw bodies.




"I pray it wasn't kids, but it looked like kids," he said. The bodies were covered in white towels, slumped over bags on the ground, he said. "It broke me when I walked out to see that," he said.

Further away, he saw the body of a heavysset man wearing all black. He assumed it was the shooter, Payton said, because unlike the other bodies it had not been covered up.

Tarakram Nunna, 25, and Ramakrishna Mullapudi, 26, said they saw what appeared to be three people lying motionless on the ground, including one who appeared to be a police officer and another who appeared to be a mall security guard.

Another shopper, Sharkie Mouli, 24, said he hid in a Banana Republic store during the shooting. As he left, he saw what appeared to be an unconscious police officer lying next to another unconscious person outside the outlet store.

"I have seen his gun lying right next to him and a guy who is like passing out right next to him," Mouli said.

Stan and Mary Ann Greene were browsing in the Columbia sportswear store when the shooting started.

"We had just gotten in, just a couple minutes earlier, and we just heard a lot of loud popping," Mary Ann Greene told The Associated Press. Employees immediately rolled down the security gate and brought everyone to the rear of the store until police arrived and escorted them out, the Greens said.

Eber Romero was at the Under Armour store when a cashier mentioned that there was a shooting.

As he left the store, Romero said, the mall appeared empty, and all the shops had their security gates down. That is when he started seeing broken glass and people who had been shot on the floor.

Video shared on social media showed people running through a parking lot while gunfire could be heard.

More than 30 police cruisers with lights flashing were blocking an entrance to the mall, with multiple ambulances on the scene.

A live aerial broadcast from the news station showed armored trucks and other law enforcement vehicles stationed outside the sprawling outdoor mall. Ambulances from several neighboring cities responded to the scene.

The Dallas office of the U.S. Bureau of Alcohol, Tobacco, Firearms and Explosives also responded.

Allen, a suburb about 25 miles (40 kilometers) north of downtown Dallas, has roughly 105,000 residents.

USA: Steady mass shootings carnage

Like an untreatable cancer, mass shootings continue to hollow America

By A.T. Symeonidis

Source: <https://theperiscope.substack.com/p/usa-steady-mass-shootings-carnage>

May 07 – Since the end of WWII, America has been involved in several "forever" wars sending troops to faraway places in claimed defense of liberty, democracy, and human rights.

Vietnam was the longest and bloodiest such endeavor that ended in humiliating defeat and chaotic withdrawal. More recently, Iraq and Afghanistan top the list of similar botched attempts to promote *Pax Americana* (you can consult a comprehensive list of wars involving the US [here](#)). While such wars continue to sap US global standing, and increase chances of an "accidental" confrontation that could trigger WWIII, another epidemic of **domestic murderous violence** continues unabated.

Many Americans, it seems, do not think twice before they reach for their guns to resolve even petty personal disputes, or arm themselves and go on killing sprees, in the name of the most dubious and insane reasons which cost [steadily increasing numbers](#) of innocent lives.

During the Covid 19 apocalyptic disruption of public and private life, based on often questionable and arbitrary public health "evidence," domestic gun violence [soared](#) again as lockdowns, and other ill-conceived dictatorial measures, led many to perpetrate blind, desperate, and human-killing revenge with the use of firearms. As we speak, gun deaths occupy a steadily [prominent](#) manner in the ways Americans lose their lives.

Before I set foot on US soil for the first time in July 1972, I was unaware of "gun violence" as part of everyday life. But, I was soon to get my first jolt of reality on New Year Eve 1972, when a diminutive black man, named Mark Essex, [who had been been](#) discharged from the US Navy "for general unsuitability," armed himself with rifle and revolver and [went out on January 7, 1974 to take revenge](#) for the oppression of black folks by targeting the New Orleans Police Department.

The carnage that followed lasted until 2 p.m. on that day when Essex fell to massive fires from police, and other law enforcement agencies, plus a [US Marines helicopter!](#) machine gunning the shooter's perch relentlessly.

The casualty total of that revenge attack was 9 killed and 12 injured.

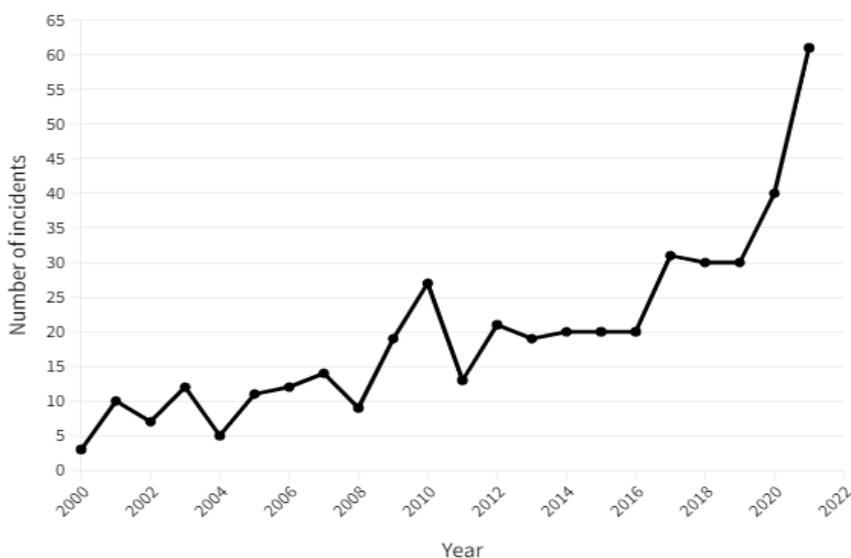


In the days that followed, both TV and print press dedicated interminable analyses of why such a terrible event could take place “out of the blue.” I did follow the debate, and tried to make sense of the opposing views regarding the causes of such mayhem, but to avail.

Active shooters

Data collected by the FBI reveal a steady increase over the past 20 years in active shooter incidents, which the Bureau defines as “one or more individuals who are engaged in killing or attempting to kill in a populated area.”

U.S. active shooter incidents, 2000–2020



Data: U.S. Federal Bureau of Investigation • Visualization: C. Chang/Science News

To date, my awe at this continuing carnage remains intact, although I have more nuanced tentative understanding of why “gun violence” continues to blight US daily life.

1. To begin with, the Covid 19 disaster exacerbated lingering personal frustrations, fueled fears about the future, and kindled a sense of insecurity that led many to often turn against their “nearest and dearest” and/or friends, acquaintances, neighbors, etc., as opportunity targets during quarrels and confrontations ending in pumped up conflict unlikely to occur during more temperate times. Under such circumstances, guns lying about became sharply more acceptable (and deadly) means of terminating an argument in the heat of the moment.

2. Despite “anti-gun” laws, restrictive state statutes, city ordinances, and promises for tougher state gun control, getting a gun in America remains far easier in comparison to other countries.

3. To date, there are US states where buying a gun is still a question

of signing the papers and undergoing a cursory FBI and /or state police database search, or a local sheriff’s purchase approval for a nominal fee.

4. In 2014, for example, and while living in Seattle, I purchased both a .22 caliber rifle and 12-gauge shotgun without mandatory waiting periods, or any other restrictions, once the dealer confirmed my “good law-abiding citizen” eligibility within the hour, prompting me to begin thinking about getting an “assault rifle” as well.
5. As for those ineligible to possess even a slingshot, there’s always the friendly *gangsta*, and/or local retail “entrepreneur,” who does business out of the trunk of his car filled with illicit guns and narcotics.
6. Draconian Covid-19 restrictions ruptured social networks, forced individuals and families into self-imposed sequestration, diminished significantly access to individual psychological support, terminated meetings of social support groups, telegraphed to all and sundry a message of a gloomy future hanging over our heads, and led to a [sharp increase](#) in domestic violence as angry couples could not leave the premises to diffuse a growing argument.
7. American parents, horrified by now routine school shootings, are nevertheless [divided](#) on gun control and Second Amendment rights. For example, an attitude of you-can-only-defend-against-guns-with-more-guns is mainstream, with many fathers and mothers calling for armed teachers (!), permanent school armed guards, security “perimeters” centrally monitored, and training school children in “combat countermeasures” in case an “active shooter” pays a visit to their school. Such debates (and divisions) are incomprehensible outside the US, but they are mainstream in America and they are not going away any time soon—and they do not address a still miniscule, but worrying, trend of pupils arriving to school carrying guns and [taking an intentional shot at their teachers](#).



Meantime, the mass shooting, variously defined as any incident involving at least three or four victims (excluding the shooter), has now become part of the daily “routine narrative” in America.

Experts, media personalities, community leaders, politicians, public health officials, and many relevant (or irrelevant) others, now accept mass shootings as part of America’s daily routine.

In the words of [Prof. Sandro Galea](#), for example:

Is it not time for us collectively to move to the common-sense gun safety reform that can make a difference? The recent [bipartisan legislation](#) on the issue was one ray of hope, the first such legislation in decades. Perhaps it is the beginning of the end of the gun violence epidemic. Or perhaps, and more likely, it is nowhere near enough. Tackling this issue will require a shift in how we think about guns, recognizing that having so many deadly weapons so widely available will inevitably result in an intolerable burden of injury and death, and that a solution will need to include comprehensive gun safety legislation that ensures safe use of guns and limits access to those who are likely to do harm.

According to the [National Institute of Justice](#), mass shootings now display a [Troubling Upward Trend](#) that shows no signs of abating. A somewhat encouraging trend, however, is that gun violence is now subject to targeted, serious, and detailed research by both government departments and academic institutions, the latter creating specialized research units to focus exclusively on the subject. This sense of urgency is not only welcome, but also truly vital, against, for example, the fact that during 2021 alone America experienced [693 mass shootings](#) making that year the worst ever since the Centers for Disease Control and Prevention [began to collect mass shooting statistics](#).

And another worrying, but still rare, addendum to all this is pupils, as young as six, bringing guns to school to [intentionally shoot](#) their teacher.

Confronting All Ten Modalities of Maritime Terrorism

By Ian Ralby

Source: https://www.realcleardefense.com/articles/2023/05/06/confronting_all_ten_modalities_of_maritime_terrorism_897900.html



May 06 – Maritime terrorism remains a [nascent field](#), and some have even argued that it is [not actually a field at all](#). Regardless of any academic squabbles, however, terrorists have used and are using the maritime domain in a variety of ways, and it is critical for all security and counter-terrorism professionals to be not only aware of how terrorists exploit the maritime domain but prepared to counter them in doing so. Given the time-sensitive nature of preventing terrorists from being successful, it is critical to understand their maritime efforts, so as to be able to identify them as early as possible, and then intervene. Examining terrorist behavior in the maritime domain reveals at least ten different modalities, all of which could be considered “maritime terrorism.” A simple taxonomy of these ten variants allows law enforcement,



security, and counterterrorism to start the critical process of first developing approaches for spotting maritime terrorist activities, then developing protocols and standard operating procedures (SOPs) for intervening in that activity, then exercising those protocols and SOPs, and finally implementing them to thwart terrorist activity. While it is the national prerogative of states to determine how they are going to tackle the problem of terrorism, this analysis seeks to support policy makers, security planners and maritime operators by articulating what modalities of maritime terrorism need to be addressed.

Prof. Curtis Bell of the U.S. Naval War College [has argued](#), when it comes to maritime terrorism, “we cannot mistake the most spectacular for the most significant.” In this spirit, categorizing terrorist engagement in the maritime domain can allow security professionals to better identify such activities and develop effective responses to them, regardless of whether they involve an actual attack. Given the disparity in how states, organizations and instruments define terrorism, it is perhaps useful to highlight what is meant by maritime terrorism. Maritime terrorists are criminals who use violence, intimidation, or serious disruption to create terror, fear, uncertainty, or chaos in pursuit of political, philosophical, ideological, racial, ethnic, or religious aims with some nexus to the maritime domain. As the following ten modalities highlight, this nexus varies. The first three are the “spectacular” attacks on the water or on land. The subsequent six are more subtle and, as a result, often harder to detect. And the last is a blurring that we are seeing more and more between “state sponsored” terrorism and states directly engaging in terrorist attacks themselves. All ten, however, should be pursued and interdicted as maritime terrorism.

1. An Attack on the Water from the Water

This is one of the three “spectacular” forms of terrorist attack, and likely the first that comes to mind when discussing maritime terrorism. The two archetypes of this attack are the 12 October 2000 bombing of the [USS COLE](#) and the 7 October 1985 hijacking of the [ACHILLE LAURO](#). In the COLE case, suicide bombers rammed a small skiff, laden with explosives, into the hull of the U.S. Warship at anchor in Aden, Yemen, killing 17 sailors. In the [ACHILLE LAURO](#), Palestinian terrorists, posing as passengers, hijacked the cruise ship, killing one of the actual passengers in the process, and leading to a three-day standoff. While one is a bombing and the other a hijacking, both are attacks on the water from the water.

2. An Attack on the Water from the Land

The second of the “spectacular” attacks, this may, at the outset, appear indistinguishable from first, but is initiated and controlled by terrorists on land. In the years since the USS COLE bombing, technology has developed such that suicide bombers are no longer needed to drive the vessel into the intended target. Operators, safely operating from land, can now use aerial or maritime drones to perpetrate the attack. In addition to the remote controlled “[bomb boats](#)” used during the ongoing civil war in Yemen, attacks like 29-30 July 2021 drone strikes on the [MERCER STREET](#) in the Gulf of Oman that killed two crewmembers, attacks on the water from the land are becoming more common. While attacks from the air could be considered a separate category, it makes more sense to split them based on the location of their control. Attacks from manned aircraft over the water can be considered “on the water from the water” while attacks using unmanned aerial systems would be categorized based on the location of the operator – on land or at sea.

3. An Attack on the Land from the Water

The third of the “spectacular” attacks plays out on land but originates from the water. Amphibious attacks have had a place in warfare for millennia, but terrorist attacks from the maritime domain have caused several states to suffer acute national traumas in recent decades. The [26 November 2008 Mumbai terrorist attacks](#) perpetrated by Lashkar-e-Taiba (LeT) led to the deaths of 175 people and a significant change in Indian security policies. The ten terrorists used an [Indian fishing vessel](#) (killing its entire crew in the process) to get close to the coast, then came ashore in a dingy, and attacked India’s financial and entertainment capital for three horrific days. Similarly the [11 February 2013 amphibious invasion of Lahad Datu](#) in Malaysia’s Sabah Island by the self-proclaimed “Royal Security Forces of the Sultanate of Sulu and North Borneo” led to a month and a half standoff. The potential potency of an attack on land from the water should not be underestimated.

4. A Precursor Attack in the Maritime Domain

Looking beyond the spectacular modalities, there are a variety of ways in which terrorists can engage in a less dramatic attack on the water as a means of setting up or preparing for a larger attack. In November 2008, for example, the LeT terrorists killed the five crew members of the Indian fishing vessel [MV KUBER](#) in advance of perpetrating the main attack on the city of Mumbai. Interestingly, those five crew members are not counted in the death toll of the Mumbai attack. In perhaps a more out-of-the-box example of what could have been an even more brazen precursor attack, Egyptian authorities in 2013 were able to [interdict a group of divers](#) who were attempting to cut the



submarine communication cables along the Egyptian coast. This particular grouping of cables accounts for one third of the world's internet and cutting them would have resulted in major setbacks to potential security responses.

5. A Maritime Activity Related to Terrorist Financing

As much as [90% of world trade happens by sea](#), legitimately. The maritime domain is an attractive setting to make money legally. But it is equally, if not even more attractive in many cases, to those who wish to pursue profit outside the law. Terrorist organizations have increasingly turned to both illicit trade – like [drug](#), [weapon](#) and [human](#) trafficking – as well as seemingly [benign trade](#) – in goods such as charcoal, fuel or sugar – to finance their operations.

6. Money Laundering of Terrorist Funds Through Maritime Activity

With the involvement of terrorist organizations in maritime economic activity, it is not surprising that some use otherwise legitimate maritime activities to launder their funds. [Trade based money laundering](#) is possible anywhere there is legitimate trade, and no venue on earth sees more trade than the maritime domain. The maritime domain is also a great place for informal value transfer networks like [hawala](#) or [flying money](#) to use seemingly [innocuous goods](#) as the means of balancing accounts held by terrorist organizations.

7. Maritime Activity Related to Terrorist Logistics, Intelligence and Sustainment

The appeal for terrorist organizations to be involved in maritime trade is not limited to funding. It is also a means of [developing logistics networks](#) to transport people, weapons or other material needed for an attack. That very process of developing a trade network also provides intelligence on potential points of failure – like coast guard or customs officials – who need to be avoided, influenced, or taken out to ensure that they do not spoil a plot. And perhaps the most overlooked advantage for terrorists to be involved in the maritime domain is to ensure sustainment of an operation, providing a means of delivering food, ammunition, and supplies. This was evident in the 2017 [Siege of Marawi](#) in which Abu Sayyaf and other ISIS affiliated terrorists battled the Filipino armed forces for five months. Without having developed sustainment chains through drug and fuel smuggling, that siege could not have lasted so long.

8. Cyberattacks by Terrorists Targeted at Maritime Activity

An increased reliance on the cyber domain has increased the opportunities for cyberattacks. Increasingly, those attacks have occurred on the water. Given the impact of recent maritime incidents – like the [EVER GIVEN](#) that blocked the Suez Canal for six days, costing the shipping industry \$416 million per hour – the maritime space may hold tremendous appeal for terrorist groups to perpetrate low cost cyberattacks with high impact. For example, [roughly \\$1,000](#) is all it took for a 2017 incident in which 20 ships on the Black Sea experienced navigational spoofing such that their positions all suggested they were not on the water, but at an airport on land.

9. Indirect Attacks on the Maritime Domain

While the previous eight modalities of maritime terrorism have all involved in the intentional use of the maritime domain, it is equally possible for a terrorist attack to have maritime consequences – even major ones – albeit unintentionally. In 2016, for example, the Niger Delta Avengers focused on attacking oil infrastructure in order to diminish Nigerian national income from oil production as a means of pursuing their political ends. The [indirect consequences](#) of those attacks, however, were to destroy fish populations, diminish drinking water supply, and pollute the maritime domain for a generation. Similarly, the 27 June 2017 “[Notpetya](#)” ransomware cyberattack on a server in Ukraine was not intended to target the maritime sector. Unfortunately for Maersk – the largest shipping line in the world at that time – their network was hosted on the attacked server, forcing a reversion to analog management of the world's largest fleet. That indirect attack cost roughly \$300 million to remedy.

10. Hybrid Aggression

Distinct from the other nine modalities of maritime terrorism, hybrid aggression is a form of state action. [Hybrid aggression](#) is where a state that has a conventional force chooses to engage in unconventional activity in a manner that, at least initially, casts doubt on who the real perpetrator is. As with terrorism, there is always an illegal act and the activity is scalable, meaning it can be dialed up or down, depending on the response. It is worth noting, however, as states have increasingly been engaging either directly or indirectly in activity that otherwise mimics terrorism. The [MERCER STREET](#) attack, for example, had all the markings of maritime terrorism, except that the perpetrator was Iran, not a terrorist group. Similarly, Iran, not a terrorist group, spoofed the position of the [STENA IMPERO](#) in order to be able to arrest it inside Iranian territory in July 2019 and use it as a bargaining chip to gain the release of the [GRACE 1](#) held by



the British in Gibraltar. Beyond Iran, [Russian](#) and [Chinese](#) hybrid aggression in the maritime domain has often mimicked terrorist attacks, and in some cases has been perpetrated by entities that could be considered non-state actors. This blurring of the line between state-sponsored terrorism and the use of terrorist tactics by state actors makes hybrid aggression a difficult but critical tenth category, as security officials must be cautious in identifying it.

These ten modalities of maritime terrorism are not necessarily exhaustive, but they do provide a somewhat parsimonious taxonomy to assist security professionals in identifying and countering terrorist activity in the maritime domain. As a practical reality, most states have limited maritime law enforcement capacity, and the same agency is often tasked with countering everything from fishing without a license to oil spills to drug trafficking to piracy. Understanding how terrorists may be engaging in the maritime space can help sensitize analysts and operators to terrorist activity that may otherwise be obscured. At the same time, that understanding can help inform policy makers how to create a national-level approach that limits opportunities for terrorists to engage in any of the ten modalities. A state's national security may be significantly impaired by any one of these terrorist activities, so every state should proactively strive to make itself as inhospitable as possible to all ten modalities of maritime terrorism.

[Dr. Ian Ralby](#) is a recognized expert in maritime law and security and serves as CEO of I.R. Consilium. He has worked on maritime security issues in more than 80 countries around the world, including in Ecuador and the wider Pacific Coast of South America. He spent four years as Adjunct Professor of Maritime Law and Security at the United States Department of Defense's Africa Center for Strategic Studies, and three years as a Maritime Crime Expert for the UN Office on Drugs and Crime. [I.R. Consilium](#) is a family firm that specializes in maritime and resource security and focuses on problem-solving around the globe.

UK: 49,265 knife attacks in 2022 – 292 killed

The Mexican Cartels: America's Greatest Terrorist Threat

By Jeffrey B. Stamm

Source: https://www.americanthinker.com/articles/2023/05/the_mexican_cartels_americas_greatest_terrorist_threat.html

Apr 07 – Our nation is suffering death by a hundred thousand cuts in the form of drug poisoning deaths every year, which are continuing to rise. On average, that's three hundred Americans dying every single day. In addition to the exploding body count, [four million](#) of our fellow citizens enter substance abuse treatment programs every year, [two million](#) visit hospital emergency rooms suffering from drug overdose symptoms and, lastly, illegal drugs now cost our society over [three trillion dollars per year](#) in lost productivity, as well as social, criminal, and health related costs of every kind.

If one wished to purposefully introduce a chemical weapon of mass destruction into a society to destroy it from within, he would be hard pressed to find something more insidious than many of the modern synthetic drugs manufactured and distributed by Mexican drug cartels. In fact, at just two milligrams for a lethal dose, fentanyl is more deadly than many of the other compounds on the United Nations' prohibited list of [chemical weapons](#) such as sarin, VX, strychnine, phosgene gas, and potassium cyanide.

Fentanyl continues to pour across our Southern border in ever more decimating amounts, killing more young Americans than any other cause. Methamphetamine has increased tenfold in the past decade. And now we see the emergence of the ghastly horse tranquilizer Xylazine being trafficked to our citizens. Mexican transnational criminal organizations are flooding this country with cheap, pure, highly addictive, and deadly drugs by the ton, manufactured with [precursor chemicals profusely supplied by China](#). All designed for them to expand their power and riches on the backs of addicted and dead Americans. And too many of our "leaders" at every level remain feckless and mute.

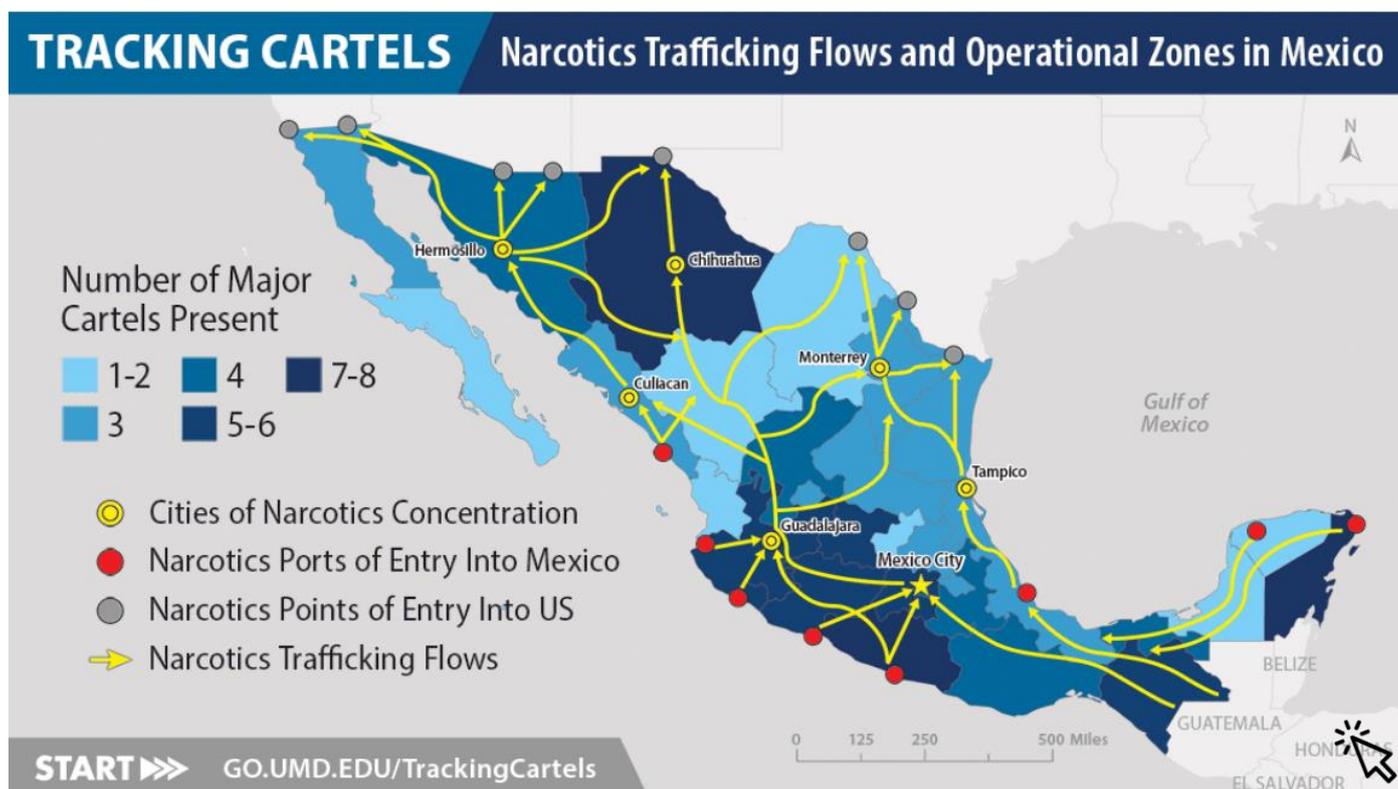
In determining whether Mexican drug cartels should be labeled as Foreign Terrorist Organizations (FTOs), one must first understand that terrorism is not a specific entity or a particular ideology, it is a *tactic* -- a tactic [designed to cow and crush any opposition](#) through violence and intimidation targeted at both the government and the people. The tactics of the Mexican predators have also worked tragically and alarmingly well against our own current regime in Washington.

The Rand Corporation recently produced an [anemic position paper](#) arguing that designating the drug cartels as FTOs is "hardly a solution." Brian Jenkins, Rand's senior advisor to the think tank, maintains that "drug trafficking and other organized criminal activities are already serious crimes in the United States and there are ample statutes to deal with it." Well, maybe. But that would only be true if we had a president, attorney general, and the secretary of Homeland Security with the *cojones* to enforce existing law. They don't. In fact, our current



government has demonstrated its frightening weakness repeatedly -- not merely its daily duplicity on the Mexican border, but with grotesquely disproportionate [prisoner exchanges](#) involving convicted narcoterrorists [Victor Bout](#) and [Haji Bashir Noorzai](#), both of whom have pledged to return to battling against the United States from Russia and Afghanistan, respectively.

When we were a serious nation concerned with things like our national security and the rule of law, we had no problem designating transnational drug trafficking organizations like the Colombian FARC, the Peruvian Shining Path, the Kurdish PKK and the Philippines' Abu Sayyaf as FTOs. And now, with the ruthlessly efficient and violent Mexican groups that are more proximate, more numerous and pushing more deadly and addictive varieties of illegal drugs than the world has ever experienced -- all enabled and enforced with monstrous acts of barbarity that clearly cross the threshold of what has been traditionally defined as terrorism -- we flinch.



To be clear, we're not just fighting Mexican drug traffickers, we're fighting the world's most powerful and prolific narcoterrorists who happen to be *based* in Mexico. Narcoterrorists who not only control the entirety of U.S.-Mexico border, but have their largest presence outside of their own country right here in ours. It has been estimated that the various **Mexican cartels have a presence in over 3,000 American cities and towns**. They are here solely to sell drugs to Americans and engage in other types of organized crime like human trafficking. I can think of no greater modern example of Cicero's warning to his fellow Romans about allowing an enemy within the gates. Just like international terrorists, the various Mexican organizations are single-minded, zealous, highly ethnocentric, and shockingly violent. And, whether we like it or not, they take our forgiving multiculturalism and our moral and cultural relativism as weakness.

The process of FTO designation is actually quite simple and straightforward. Title 8 U.S. Code, Section 1189 vests within the Secretary of State the authority to make such an autonomous declaration. It requires no legislation, no presidential approval, no funding. It can be done today. It *should* be done today. Secretary Antony Blinken should be made to feel the hot demand to do so by the American people.

Yet, we need to understand that this would not be a panacea, the answer to all our border problems. In fact, the Rand piece is quite correct in its argument that launching "the full fury and might" of the United States military inside Mexico, as the [LARPing](#) windbag known as [Senator Lindsay Graham](#) is currently hawking, is a complete political non-starter. But, to turn the Rand argument on its head, we don't need to designate the cartels as FTOs in order to engage the U.S. military in Mexico, as we have been providing intelligence and technological support -- as much as they have allowed -- to Mexican forces for many years; that is, until President Andres Lopez-Obrador implemented his policy of dealing with the cartels with ["hugs, not bullets."](#)



The biggest reason for FTO designation is not even about potential actions in Mexico at all. It's about providing *domestic* law enforcement agencies with the statutory tools to target and arrest anyone providing material support to foreign terrorists. Thus, anyone selling Sinaloa's fentanyl, trafficking *La Familia's* methamphetamine, or transporting CJNG's human sex slaves can be prosecuted, their assets seized, and their co-conspirators deported with enhanced urgency. Moreover, states that pass "material support" legislation that mirrors federal statutes need no longer rely upon Washington to be able to take such action.

When [DEA Agent Enrique "Kiki" Camarena](#) was kidnapped, tortured, and killed in 1985 by the [Guadalajara cartel](#), along with elements of the Mexican government, the Reagan administration shut down the entire Mexican border to achieve justice for one man fighting for his nation. And, more recently, when the Zetas cartel killed ICE agent Jaime Zapata and wounded his partner Victor Avila in a [roadside ambush in Mexico in 2011](#), law enforcement agencies across the United States organically launched "[Operation Bombardier](#)," coordinated by DEA, to target, dismantle, and disrupt every aspect of the Zetas organization and activities *within* our nation, as well as in Mexico. Both follow-on actions were designed not merely to reassert the rule of law, but to *avenge* injustices against America herself.

Just last week, on April 29, [thousands of patriots gathered](#) at the steps of the state capitol in Austin, Texas to demand that our government secure our sovereign borders. One of their entreaties was the need to declare every one of Mexico's sinister narcoterrorist groups as foreign terrorist organizations. They are right to do so, as *today's* avengers require its tools to protect the homeland on our behalf.

It is way past time to do so.

[Jeff Stamm](#) is a 40-year law enforcement veteran, having served as a Deputy Sheriff in Sacramento County, California; a Special Agent with the U.S. Drug Enforcement Administration; and as the Executive Director of the Midwest High Intensity Drug Trafficking Area (HIDTA).

Hezbollah builds 27 new bases in Lebanon under cover of fake NGO

Source: <https://www.jns.org/hezbollah-builds-27-new-bases-in-lebanon-under-cover-of-fake-ngo/>

May 09 – Israel's Foreign Ministry revealed on Monday that Hezbollah has in the past year constructed no fewer than 27 military posts along the Blue Line, a demarcation separating Israel and Lebanon.

The posts were built under the guise of Green without Borders, a Hezbollah-affiliated organization that poses as an environmental NGO. Hezbollah launched the project in parallel to Israel's construction of a fortified perimeter fence along the 140-kilometer border. According to United Nations Security Council Resolution 1701, which ended the 2006 Second Lebanon War, the terrorist group is forbidden from operating near the frontier.

Israeli media reported last June that Iranian-backed [Hezbollah](#) had built more than a dozen outposts on the border, with each such site containing an outlook position or tower, two to three housing units and storage facilities.

"The problem is that as soon as Hezbollah builds a post like this, the Lebanese army and UNIFIL [the United Nations Interim Force in Lebanon] no longer arrive [in the area]," the reports quoted a senior Israel Defense Forces Northern Command source as saying at the time. The same month, the IDF said that the Lebanese terrorist group had established an intelligence-gathering [outpost](#) on the border disguised as an environmental protection facility.

Israeli Ambassador to the United Nations [Gilad Erdan](#) has demanded that the United Nations take action against Hezbollah.

In a letter to the Security Council and U.N. Secretary-General António Guterres, Erdan warned that the "new reality on the Israel-Lebanon border points to a clear escalation that could ignite the entire region" and argued that the true objective of the posts is intelligence gathering. "Under the guise of the so-called 'Green without Borders' environmental organization, Hezbollah is expanding its terror footprints on a daily basis, just mere meters from Israel's northern border, and from within UNIFIL's area of operations," he writes. The IDF has exposed Green without Borders as a fictitious group founded by Hezbollah in 2018.

"The use of this organization as a front for Hezbollah's malign activities has been recognized by the U.N. and described in several periodic reports of the secretary-general. As has been flagged by several U.N. reports and noted in relevant U.N. resolutions, this perverse tactic, of terror organizations hiding behind non-profits and NGOs, is a growing phenomenon that is not only employed by Hezbollah but by many other terror groups across the globe as well," states the letter.

"These are military outposts for all intents and purposes, established and maintained by Hezbollah terrorists and not innocent Lebanese environmentalists. This is part of the broader picture of Hezbollah's growing presence in southern Lebanon and yet another example of its ongoing hostile activity in the area," adds Erdan.



Research Shows How Terrorism Affects Our Language and Voting Patterns

Source: <https://www.homelandsecuritynewswire.com/dr20230511-research-shows-how-terrorism-affects-our-language-and-voting-patterns>

May 11 – The experience of the jihadist terrorist attacks that plagued Western Europe between 2015 and 2017 shows that perceived threats from ethnic and religious minorities affect the tone of public discourse about immigration and the support for radical right parties, according to [a new study](#) which uses German data, including more than 10mln tweets.

In that period, terrorist attacks and instances of a crime involving minorities made immigration a more salient issue for voters, explain Bocconi scholars [Francesco Giavazzi \(Bocconi University, Milan\)](#) and [Gaia Rubera \(Bocconi University, Milan\)](#), with former Bocconi students Felix Iglhaut (now at the LSE Ph.D. program) and Giacomo Lemoli (now at the New York University Ph.D. program) as co-authors. This induced German Twitter users to tweet more frequently, and with a worsening sentiment, about immigration and Muslims, thus making the language used by the public on Twitter more similar to the language used by the radical right party AfD (Alternative für Deutschland), which was pointing to the open border policy as posing a security threat for the German population. The linguistic shift was, moreover, correlated with the intention to vote AfD, as measured by weekly Infratest Dimap polls, and by its electoral fortunes at the 2017 election, when the party entered the lower house of Parliament for the first time by almost tripling its vote share.

Language Matters

Even if the information provided by Twitter users about their location is, in many cases, unreliable, the authors were able to geolocate 189,368 Twitter users in 235 German constituencies out of 261. They identified 5,512 strictly local landmark Twitter accounts and assumed that any individual following at least three landmarks in the same constituency and no landmark outside it lives there. Using a natural language processing algorithm, they computed a daily measure of similarity between the language used by parties on Twitter and the language used by the public from a given constituency. This measure of similarity was used to infer the alignment of Twitter users in any constituency with national parties.

Eleven exogenous events (ten terrorist attacks across Europe and a criminal event involving North African and Arab men) allowed the authors to compare the language similarity in the presence and the absence of such events. Even if the largest effect of an event on tweet volume and sentiment and language similarity is observed in the following week, a longer-term trend is also visible, with the volume of tweets about immigration and Islam growing over time, and their sentiment worsening. No traditional explanatory variable, such as education or social status, seems to play a role, whereas the magnitude of the effect is small following the first events and increases over time, suggesting that a consistent series of shocks is needed to condition public opinion.

Media and Polarization

The study appears to downplay the role of traditional media. The German general public changed its discourse independently of newspapers. Contrary to what happened on Twitter, the volume of articles focused on immigration and Islam decreased over time and their sentiment was stable. “Along with a large language shift towards AfD,” Prof. Rubera said, “we also observed a smaller shift towards the language of the party at the other end of the political spectrum, Die Linke, at the expense of center parties. This suggests that another effect of religiously motivated terrorism has been a polarization of the German society.”

“Since language similarity proved to be such a good predictor of voting intention at the constituency level,” Prof. Giavazzi concluded, “our study opens the prospect of using this methodology in place of, or alongside, traditional opinion polls. However, [the academic world is worried about the possible end to the Twitter policy of allowing researchers free access to data](#). Neither a study such as ours nor the monitoring of voting intentions through the new methodology would be feasible anymore if access were to be regulated [under the terms leaked a few days ago](#).”

The New ISIS: How a Branch of the Terrorist Group Is Becoming a Top Threat

Source: <https://www.military.com/daily-news/2023/05/12/new-isis-how-branch-of-terrorist-group-becoming-top-threat.html>

May 12 – The Islamic State's Khorasan Province, also known as ISIS-K, has rapidly become the new boogeyman in the Middle East -- specifically in Afghanistan, where the overall ISIS apparatus has spread its influence.

The State Department has issued warnings about the group and has previously designated its leaders as top-priority terrorists. Over the last few years, top military generals have said that the group must be eradicated. And perhaps most recent in Americans' minds is the group's claim to the Abbey Gate suicide



bombing, an explosion that killed 13 U.S. service members and at least 160 Afghans during the chaotic military withdrawal from Afghanistan almost two years ago.

Last month, the Taliban -- the reigning draconian regime in Afghanistan that the U.S. fought over the last 20 years of conflict in the country -- claimed that they had killed the ISIS-K leader behind the Abbey Gate plot.

The claim marks renewed attention in a new era of conflict for the region. Our guest, Andrew Mines, spent years as a researcher with the George Washington Program on Extremism warning of ISIS-K's rise, as did other academics. And reporters like Dan Lamothe with The Washington Post have uncovered U.S. documents that indicate Afghanistan is once again a staging ground for global terrorism -- this time, with ISIS-K.

Main Topics

Drew F. Lawrence and Rebecca Kheel interview extremism researcher Andrew Mines and Washington Post military reporter Dan Lamothe.

Drew F. Lawrence

The Islamic State's Khorasan Province, also known as ISIS-K has been rapidly becoming the new boogeyman in the Middle East -- specifically in Afghanistan where the overall ISIS apparatus has spread its influence. The State Department has issued warnings about the group and has previously designated their leaders as top priority terrorists. Over the last few years, top military generals have said that the group must be eradicated. And perhaps most recent in American's minds is the group's claim to the Abbey Gate suicide bombing, an explosion that killed 13 U.S. service members and at least 160 Afghans during the chaotic military withdrawal from Afghanistan almost two years ago. Last month, the Taliban -- the reigning draconian regime in Afghanistan which the U.S. fought over the last 20 years of conflict in the country -- claimed that they killed the ISIS-K leader behind the Abbey Gate plot. The claim marks renewed attention in a new era of conflict for the region. Our guest, Andrew Mines, spent years as a researcher with the George Washington Program on Extremism warning of ISIS-K's rise, as did other academics. And reporters like Dan Lamothe with the Washington Post have uncovered U.S. documents that indicate Afghanistan is once again a staging ground for global terrorism -- this time, with ISIS-K. Join us for this special episode where we talk to Andrew, Dan and my co-host Rebecca Kheel about ISIS-K and the worldwide threat the group poses -- a prescient conversation held just days before the Taliban claimed responsibility for killing the leader of the Abbey Gate plot.

Hey, thanks guys for being here and Andrew before we kind of get into Dan's reporting here, I want to talk a little bit about ISIS and ISIS-K in general. I think I'd suggest that the US population probably knows a little bit about ISIS, but maybe not recently. So can you kind of put that group into perspective and tell us a little bit about what ISIS is now?

Andrew Mines

Sure. So ISIS-K really starts back in 2015. And even in the months prior in 2014. What happens after the announcement of the caliphate in 2014 in Iraq and Syria is, all these problems start to form around the globe. And at the start of 2015, the Islamic State announces the official formation of its province in Afghanistan and Pakistan IS Khorasan, also known as the Islamic State in Afghanistan in Pakistan. What happens over the course of a few years is the group forms based on membership from a number of local organizations. We're talking Pakistani Taliban is the central node that really kicks things off alongside some al Qaeda defectors, Afghan Taliban, other regional militant groups like the Islamic movement of Uzbekistan and others and so over time they're able to entrench themselves in the region, eventually administer territory somewhat similar to what we saw in Iraq and Syria, and engage in a campaign of violence that by 2018 leads them to be the fourth deadliest terrorist organization on the planet, according to some estimates. At the same time this is all happening, the US and its allied partners in Afghanistan engaged on a really intensive counterterrorism and at once, counterinsurgency operations that when they take out a number of top leadership. Leadership turnover in this organization has been quite tumultuous to say the least. Thousands of rank and file losses on top of that, and eventually the recapture of territory that IS-K or ISIS-K had started administering in the region and so by 2020 This is really an organization pretty much in decline, some calling it defeated. But what happens in 2020 is the formation of a new leadership council under a new leader was announced in about mid-2020. That kicks off this new kind of urban warfare campaign that takes the group through the period of the signing of the Doha deal in early 2020 takes us through 2020 and into 2021. And by this point IS-K has does most people bombings that folks might be familiar with. In 2020, there was a bombing of [a] maternity ward in Kabul. That'll be familiar to some folks -- it was pretty awful -- but really leading up to the Kabul airport attack this is an organization that's just starting to resurge and just starting to find its feet again in urban warfare operations. And that takes us into the Kabul bomb, which of course is very familiar to everybody, I'm sure.



Drew F. Lawrence

Right, Dan, I want to pivot to you too, because that I think, was probably one of the last large points that the US population had heard about ISIS-K was during the Abbey Gate bombing in the withdrawal. ISIS-K claimed responsibility for the suicide bombing. So Dan, I was wondering if you could kind of take us from that last point of recognition on ISIS-K and then bring us into your reporting and explaining what this group is doing in Afghanistan and how big their presence is?

Dan Lamothe

Sure. I mean, I think an important thing that that bombing highlighted, in addition to the immense human suffering that was caused by it in the moment is that the Taliban can't control ISIS-K. They're a separate entity. They don't agree on a lot of things. They're openly fighting with each other. You're seeing Taliban raids on ISIS compounds. You know, they you know, while they both have overlapping views of the West and the United States and why they think, you know, kind of a western view is a problem. ISIS-K is even more extreme, and has been targeting the Taliban and the Taliban has not been fully successful in stopping that. So you expand that, you know, extremist groups like this often with the ungoverned spaces. The Taliban is able to govern a portion of Afghanistan. They are obviously imposing their will on Afghan people every day. But you know, these documents would highlight that they are unsuccessful in fully stopping you know, ISIS in Afghanistan from planning, plotting, reaching out to the outside world, trying to inspire attacks in other places, and you know, as a result you know, we saw not only us reactions to my story, but actually the Taliban, putting out statements pushing.

Rebecca Kheel

You have a quote in your story from an official I want to read the quote, because it's pretty crazy. The official says, quote, I would never want to say that we had mortgaged our counterterrorism to a group like the Taliban, but it's a fact that operationally they put pressure on ISIS-K in a strange world, we have mutually beneficial objectives there. But what you're suggesting is that the Taliban hasn't actually really been successful at that. Right?

Dan Lamothe

I would say probably partially successful. You know, there is open source reporting of Taliban raids on ISIS compounds there is, you know, I think a sense that the Taliban is trying to keep pressure on ISIS. I think that probably has had a role in what ISIS is effectively able to do. The documents on one hand point out that there is an effort to expand influence, expand operations. There's an increasing number of plots that the United States was tracking, as when these documents were put together in February. But the flipside is there was also a lot of ambitions that were highlighted that have not been able to kind of fully for, you know, ISIS seeking out a greater level of knowledge on drone warfare, on chemical warfare, things like that. They have not been able to expand. So I think consequently, the most likely sorts of things that that they're concerned about at this point are things like driving trucks through crowded, crowded areas, gun attacks, sort of the ISIS inspired stuff that could happen anywhere. And has happened in the past.

Drew F. Lawrence

And with Dan's reporting, we're talking about ISIS in Afghanistan, but as both of you in you know, Andrew, you'd mentioned in beginning and then Dan, your reporting you'd mentioned... his is ISIS has a global influence in terms of their their terror, and I'm wondering if you could kind of give us that scope right outside of Afghanistan, what ISIS is doing and Andrew, I'll toss it over to you first, and then Dan, if you could kind of tell us a little bit about how your reporting fit into that scope.

Andrew Mines

Here's the thing I think I think the most dangerous thing is that in that resurgence period I was describing really starts back in 2020. IS started is honestly in Afghanistan and Pakistan has already started pivoting to be more of this kind of regional hub. My and I've reported foreign fighters from over a dozen nationalities that have at some point get involved with IS-K killed in counterterrorism operations from France all the way over the Philippines on the other side, actually, an American tried to join them back in 2018. Some people might not be fully aware. But what happens during this resurgence period is that the group really starts to through its propaganda output, and also through its attacks in terms of who is attacking and who is highlighting this propaganda showing that it's a regional force. So we see starting in 2020 2021 2022, Uzbek, Uighur, Indian Tajik and other fighters of different ethnicities and nationalities conducting attacks across the border into their countries, or at least trying to find embassies and other diplomatic presences in the country that still remain even after the withdrawal on the on the airport, of course, 2021. And in 2022 this is an organization that is a third deadliest terrorist organization on the planet. So I think that that point that Dan made about the Taliban trying having the objective of



constraining IS-K there certainly they have been at odds since is key information. But this is this is really an environment in which IS-K can thrive. And I think that that last data point that comes out and Dan's reporting about them really seeking this external operation model, that's a model that benefited IS in the caliphate in Iraq and Syria. That's something actively tried to do in setting up higher structures staffed by operatives that were their sole focus was external operations in countries like the United States, United Kingdom, Europe and elsewhere. So I think this is this is a really delicate period. And I'd be interested to see Dan your perspective on on the reporting and how that came out of the leaks, but, you know, this is, from our perspective, there are a number of data points that should be really concerning.

Dan Lamothe

Yeah, I mean, I would say the documents highlight communication between ISIS operatives in places like Afghanistan, but then reaching out back to Britain, France, Turkey. And those are the things that are doing better to a degree trackable by the US government and others. But you never know what you're missing until it's too late. You know, and, you know, if they're able to stop 98 attacks, the other two will still be a concern. So, you know, there you see in these documents, specific examples, some of which, you know, trying to be responsible, we were very vague with not wanting to you know, kind of cut off, you know, active US efforts to try and stay on top of this. So, we left things out deliberately trying to do that. So, you know, in the vague broad sense, you do see things like Tajikistan come up, you do see Turkey come up if you see the Britain come up, we alluded to an example where there was a discussion between you know, this ISIS facilitator and an individual in Britain, you know, and the discussion and the instructions that were passed. Those are the sorts of things that are, you know, they're tracking it, they're they're you know, they have a number of narratives that they're following and a number of plots that they're following. But it would also raise the question, what do you not know about?

Rebecca Kheel

In my congressional hearings I've watched, it seems like military leaders often put the timeline for the threat of an external attack at six months. A year ago, they had you had a quote from general Kurilla a few months ago or a month ago, where he also used the six month timeline. Dan, in your reporting, what are military leaders saying about the threat of an external attack by ISIS-K?

Yeah, there seems to be broad acknowledgement and overlap speaking to senior defense officials in uniform and out that this is a concern and it is an increasing concern. I think there is probably differences of opinion on what what's six months, what's four months, what's 12 months? You know, that can be kind of hard to peg. So, you know, I raised that comment from general Kurilla, which came up in open testimony in March before the House Armed Services Committee, and speaking with others you know, they they agree with him broadly, that there's a rising concern, but you know, that they weren't really willing to peg it or agree with the idea that six months is a thing.

Drew F. Lawrence

And Andrew before Dan's report came out, you had done work about ISIS-K attacking humanitarian aid. And when we're talking about Afghanistan, you know, after withdrawal that has been a huge, not just the attacks, but humanitarian aid to the country after the withdrawal has been an absolutely huge point coming out of the United States and for service members and for veterans. And ISIS-K has disrupted that. Can you talk about some of those disruptions and maybe how these fits into the broader Afghan diaspora and post withdrawal that's happening and then that goes to you as well, since I know you've, you've covered a lot especially for servicemembers and veterans who are still kind of talking about and reckoning with that withdrawal.

Andrew Mines

So the campaign against humanitarians in Afghanistan, one of the number of campaigns that I escaped undertakes, we feature tax of course, but also propaganda and official invited senior senior ideologues. So what what's happened the last couple of years now actually is that ISK senior officials and ideologues turn to humanitarians and said, accepting aid from any Western Affiliated Organization. Whatever, wherever that aid is coming from is not permissible and where possible, Afghans should actively target and push out humanitarian still servicing the country. So this is part of this broader campaign to destabilize the country. When you look at Islamic State doctrine. This is doctrine that IS-K ISIS K adopts but it's really coming from Iraq and Syria where a lot of the movements core kind of strategists formulating an insurgency warfare strategy, but this is this is a campaign that's meant to precede that period where you destabilize the current government discredit those who are attempting to serve as the population and create those gaps where is then seeks to fill down the road right that's that's that's the whole model. It's it's an insurgency one on one. And so this is this is just one campaign that's part of a broader effort to both discredit the Taliban broken window fallacy. You're creating the problems that you



then seek to solve at the end of the day, and then painting them as puppets of the West no better than the previous Rudy, right or previous government. And so this is this is all part of IS-K broader, broader insurgency warfare strategy. So I think that just coming back to the you know, what we mean when we talk about IS-K attacks on the west, you know, there's a humanitarian still servicing the country. Is it on regional diplomatic residence? Is it on homeland on the homeland right to targets here in the US and using some kind of model whether it's virtual planning, or sending operatives overseas? What have you. So we really need some clarity, I think about what it is that senior officials mean, when they see an Islamic state threat coming from Afghanistan, on Western interests that can be quite vague and it can be quite confusing to the public. I think, to some clarity there. It's really important.

Dan Lamothe

I would add on on the other side, you know, the Taliban has accepted a large amount of money at this point from the western United States in particular, they are allowing NGOs to continue their work. And there is a great deal of suffering and starvation and drought and other things that the Taliban does not seem to have been able to get their arms around and take care of their own citizens at this point if they're going to be the governing party. So you look at that and you end up with in these weird, awkward situations where a story like this highlights that ISIS still just in Afghanistan, still concerned that politically is a problem for a lot of people in Washington. But it's also a problem for the Taliban. Because you know, they're having to kind of sit on the fence to a degree. They're accepting the money from the West, but trying to make it clear to Afghan people that they are not of the West. You know, and they are trying to kind of push back this ISIS threat, but at the same time, make the case in the United theater to the United States and others that they've got it there's no problem here. Consequently, one of the things we saw from my story is kind of a weird situation we see unfold, and we had some uncomfortable conversations prior to the story being published, about you know, you know, what can be reported what should be reported? Obviously, these are leaks that makes it extra sensitive as well. But then on the flip side, after publication, you see the Taliban come out, pushing back against the reporting saying, "Hey, this is Western propaganda. You know, these are military documents that were released to the Washington Post." I can assure you, these are not handed to us under any circumstances that the Pentagon was thrilled with. So you know, like, even in Taliban, the characterization of this is, you know, it kind of flips it on a ear again, in a weird way.

Rebecca Kheel

Now, you just alluded to this, but we should probably take a step back and talk about where this information came from, because that in of itself is a big story. What are the discord leaks?

Dan Lamothe

Yeah. So there's there's this ongoing case in which the allegation at least, is that a relatively junior member of 21 years old of the Massachusetts Air [National Guard](#), was basically pulling in documents through you know, illicit means and sharing them within a discord chat app with his online friends, some of which were teenagers. You know, some of these documents lead to other chat rooms, and, you know, that's kind of how it ended up in employment, public realm. But but it's to, to this point, still unclear exactly how many documents are kind of out in the wild? How broadly they are out there, you know, and who has access to them? You know, some of these I think they'd be access has been limited now that this case is out in public, you know, you've seen servers that are deleted and things of that sort. We, as the Washington Post had sorted through several 100 pages. This this is an example of a story in a doc a set of documents that hadn't really service widely, hadn't been reported on elsewhere. But I'm not sure what the full universe of those documents is, at this point. I just know we're combing through them. You know, we're doing what we can to report on them to verify them, you know, and it puts the government in an awkward position of, you know, having to address some of this stuff. And generally, it seems like at this point, they've reached a place where they're not going to verify or, you know, confirm that a given slide is accurate, but they are starting to talk more broadly about the issue. You know, if you're going to be writing on, you know, of the rise of ISIS in Afghanistan, what the threat is of ISIS at this moment, you know, they wouldn't confirm the documents exist, but they were willing to engage more broadly on the subject.

Drew F. Lawrence

And Dan is the Washington Post military reporter, you're obviously in tune with service members and veterans. And I'd be remiss if I didn't ask about how this fits into the broader conversation about Afghanistan. The reason why I want to ask that is because we are 20 months out of the withdrawal at this point. And now, you know, we're learning that Afghanistan, despite, you know, efforts over the last 20 years, is still very much a hotbed for terrorism, the very thing that United States and servicemembers and veterans were they're fighting to combat or where they're combating. So I'm wondering if you could kind of give us a lay of the land or give us some scope about, you know, maybe



how veterans or service members might be perceiving the news that you know, even after all this time, there's still a lot of terrorism and, frankly, new terrorism going on in Afghanistan.

Dan Lamothe

Yeah, I'm wrestling with that myself just having spent so much time there. You know, I think as we look at this, you know, kind of looking at the possible counterfactuals if you know, what the other big fork in the road might have what might have led us to obviously the recommendation from General Miller, General McKenzie, Defense Secretary Esper and on up I mean, including that, you know, the current leadership at the Pentagon, they recommended leaving a 2500 or 1000, depending on you know, what the recommendation was on a given month, a reasonably small force there. That would have been very much focused on this issue that was not palatable to the Taliban. That does not appear to have been palatable to President Trump. It does not appear to have been palatable to President Biden. So you are left where you are now with zero US troops on the ground. Them trying to keep a track of this as in as many ways as they can, which I assume includes signals intercepts, you know, satellite monitoring, trying to make sure you're not seeing training camps pop up from the air, all of those sorts of things. You know, and at the end of the day, I think that discussion will probably end up landing on you know, if you see one of these attacks, it's seven people get killed in an ISIS inspired ISIS enabled you know, ISIS facilitated sort of attack you know, that like They run the gamut. Some of these are very much like, ISIS did this. Some of these are more like well, ISIS talk somebody into doing different, different different discussion there. But let's say one of those happens next year, not on unforeseeable, something like that could pop up. You're gonna end up seeing probably a pretty hot political conversation of whether we are doing enough as a nation at that point. And I think the discussion will end up being you know, does it make sense to put people back on the ground with all of the other things that come with it? [deployments](#), larger budgets, at least focused on this issue? American casualties on the ground would not be unforeseeable? Or do you kind of just take it on the chin with these occasional tacks to to slip through, and you catch 95-98% of them? And occasionally one of them's going to happen and, you know, that, that, you know, that sort of a worse bad option and I don't know what the ultimate right answer is. on that. I just know we need to talk about it.

Andrew Mines

I think it's really important to highlight that the Taliban have been battling ISIS-K since 2015. And they've had the benefit of a US led coalition that's been hammering this group the entire time too. And even then, it took several years to really do great and push this group into some kind of position where people felt comfortable saying they were defeated. Obviously, that was premature. But to I think, to say that, again, I did this too earlier, but to say that the current Taliban regime is an effective counterterrorism force I think is quite a bit of a stretch it's easy to take their propaganda and they're quite good at pushing it out to Western audiences, and we've got this under control. Everything that you're seeing is over employed. And what you're seeing in the news is is Western directed us by propaganda efforts against us, but, you know, historically, they've been clashing since 2015. IS-K poses an existential threat to the Taliban as a movement if it's able to move from a position where it's a few 1000 or so fighters to a larger insurgency that's capable of undermining the regime. period we're seeing now to, you know, something that more resembles the caliphate from Iraq and Syria in 2014. That's the goal. That's the vision. And I think what we ended the book with is this quote, I'll paraphrase it we say when, when IS it over when the Islamic State took over Iraq and Syria in 2014, they're they're kind of these two things that kept coming up in America, that we as public and American public's repeat over and over again, that it was unprecedented. And then it happened rapidly. Right? That is the way that the as long as they swept across Iraq and Iraq and Syria was just just unimaginably fast. And that looks like it, right, that's what it appears to be. But that is a several years long campaign that really starts since the US withdrawal in 2011 that the Islamic State core group is really seeking to push through and then slowly rebuild. And then build this insurgency and take on all these campaigns, the same ones that we're seeing IS-K take on today, it was taking on Iraq and Syria. And so I I would just echo Dan, you know, the question we should be asking is, worst case scenario. Are we comfortable with a caliphate in Afghanistan run by ISIS-K? Is an unacceptable outcome and what are the real things that we should be doing to counteract that? Because I'm not sure that over the horizon is an effective way to do that, to conduct that that campaign.

Dan Lamothe

I would add, I mean, the other the other side of the coin, here is al Qaeda. You know, and we haven't talked about that yesterday, but that often comes up in the discussion and it is quick discussion when you talk to current US officials, because they point to drone strike that killed SWAT hearing the al Qaeda leader in Afghanistan, a stone's throw from a former US military headquarter, just by the way, I mean, like right next to downtown Chicago as an example of how this current model can work in you know, there's I think there's there's there's a couple threads worth discussing. One is that, you know, these documents don't have much about al Qaeda in there. The sense



is from a number of experts that al Qaeda at least, has been diminished to a degree that they you know, are not a major concern at the moment. You know ISIS is, but these individuals often jump one group to another based on which one seems more effective, which one, you know, you know, they protrude from one another. And we've seen that with, you know, ISIS in Afghanistan as well. I mean, they have members that were former Taliban you know, they had members that were former tapping involved in Pakistani groups. So where this goes and how this evolves, I think is unpredictable. But you know, the discussion at least of what is the best model probably needs to evolve with it. In an I think everybody is weary of doing anything that includes another 20 year commitment on the ground in Afghanistan. But I think people need to keep their eyes open and you know this will continue to ebb and flow and evolve based on how good the Taliban is at going after ISIS. Based on how well the United States is able to kind of monitor this remotely, you know, through signals intelligence to satellite intelligence, whatever else, whatever other means they can without actually having troops on the ground. And, you know, ISIS will evolve with it, they'll probably get smarter over time as well. So you know, it's going to be a complex issue for a long time.

A 10-Year Reflection on the Boston Marathon Bombing and a Call for a National Emergency Management Strategy

By Richard Serino

Source: <https://www.hstoday.us/featured/a-10-year-reflection-on-the-boston-marathon-bombing-and-a-call-for-a-national-emergency-management-strategy/>



Boston Marathon bombers Tamerlan and Dzhokhar Tsarnaev on April 15, 2013. (FBI photo)

May 15 – When I think back to April 15, 2013, I first see a city at its brightest. The streets are filled with millions of residents and visitors from around the world – Patriot's Day, an early Red Sox game and the Marathon came together to create a day like no other in Boston. These are the streets I spent 36 years working on at Boston EMS, the streets where I grew up, and the area I still call home today. The second thing I see when I think back



to April 15, 2013, is a community that came together in the aftermath of the Boston Marathon Bombing in a historic way. In the words of the late Boston EMS Captain Bob “Sarge” Haley, “Everybody ran the right way that day.” EMTs, paramedics, police officers, firefighters, and civilians all saved lives together.

While nothing can replace those we lost, as a community we take solace that our preparedness saved lives. I often say: It was no accident that Boston was prepared to respond that day, it was no accident that equipment was on site. It was no accident that the patients were equally distributed across hospitals. It was no accident to see that lives were saved with tourniquets. ***Boston was strong because Boston was prepared.***

Some of the lessons we learned from the successes in the response have been directly applied to programs on a national level. We saw that tourniquets worked – and that was part of the formation of the “[Stop the Bleed](#)” initiative. The Boston Public Health Commission on Emergency Preparedness worked with family reunification and mental health support. Their efforts were crucial successes in supporting survivors and their families. We now apply that same level of care in the wake of terrorist events in communities across the world with the organization “[One World Strong](#).” One World Strong has helped thousands of survivors around the world, from the Pulse nightclub shooting to Las Vegas to Uvalde to Manchester, UK, to France and more. These are initiatives formed from the tragedy **by survivors for survivors**, with the leadership of Dave Fortier and others.

We saw phenomenal coordination of leadership across agencies, with everyone working together in their respective silos or as we call them “Cylinders of excellence.” In the years following, many people studied the leaders of the response and the level of coordination. This exploration led to the development of “Swarm Leadership” from [Harvard’s National Preparedness Leadership Initiative](#), preparing hundreds of past, current and future leaders to respond as effectively as those women and men did that 10 years ago.

I’d like to offer a special thank you to the late Mayor Tom Menino and Governor Deval Patrick for their leadership *before, during, and after* the bombing. Mayor Menino and Governor Patrick set the tone long before the bombing in stressing the importance of preparing, practicing, and cooperating with *compassion* for disasters. Both leaders demonstrated the best of servant leadership and allowed their teams to function at their highest level for the greater good.

Other lessons are less easily captured in a single initiative or organization.

After the bombing, we learned the value of recognizing the impact of the trauma on first responders, families, and the community. **Now more than ever, EMTs, paramedics, police officers, firefighters, healthcare workers, emergency managers, and public health workers are in need of that recognition and support.** COVID-19 has left a devastating toll on the workforce we depend on in the aftermath of a crisis. Without taking care of this *workforce* – with adequate mental health services, workplace conditions, strong leadership, and cross-functional collaboration – we are leaving the United States exposed to catastrophic future attacks being left unanswered both in the context of lives and economic well-being.

In the response to the Marathon Bombing, we also learned how impactful rapid, accurate, and transparent communication is for a whole community response. Twitter was used to communicate crucial information to the entire city. However, **today in the face of cyber-attacks, mis- and disinformation – we have lost both trust and the ability to communicate effectively.** We need to remember the value of crisis communication from the Boston Marathon and institutionalize it across federal, state, local, tribal, and territorial agencies.

Unlike ever before, our local emergency managers and public health workers are dealing with overlapping crises – or poly-crises. It’s not just floods, hurricanes, tornadoes, and wildfires anymore – it is the fentanyl epidemic, it is homelessness, it is immigration and terrorism. It is biosecurity and cybersecurity threats. **We need to prioritize funding and building stronger public health systems, and stronger emergency management systems and work together on the LOCAL level, with support from the federal level.** Local leaders need ongoing support to maintain the ability to break through the purposeful disinformation aimed at eroding trust – so that they are able to manage everything that is being put on their plate.

Lastly, the Boston Marathon response showed us the resilience of a community that stands together. Yet today, we live in a fragmented society in the wake of COVID. There is a lack of social cohesion in towns and cities across the country. **How do we bring people together again?** Our nation is left weaker if we cannot re-create that sense of community and purpose that we felt in Boston in April 2013. Emergency Managers are conveners – they bring people together after a disaster. How can we lean on their skillset to help bring people together before a crisis happens to build resiliency?

How can we take these lessons to get everyone running in the same direction again? **A National Emergency Management Strategy.**

Similar to the [National Cybersecurity Strategy](#), a unifying National Emergency Management Strategy would align “roles, responsibilities, and resources” to bolster efforts on the local level to better prepare and respond to crises. We need a common vision for long-term capacity building so that our Emergency



Managers are just as prepared to mitigate, respond, and recover from natural and human-made disasters in 30 years as they were on the day of the Boston Marathon Bombing.

This strategy could not come at a more pivotal moment. In 2020, there was a [billion-dollar natural disaster](#) every 16 days in the U.S. – causing a devastating toll on human lives and the economy. This year, our country has faced a mass shooting event nearly every day. COVID-19 has been estimated to have cost the U.S. economy [\\$3.7 trillion](#). This year, we are set to continue to see record numbers of fentanyl-related overdoses. The list goes on.

Our local-level Emergency Management workforce faces daily threats that transcend both the mission of FEMA as well as the National Security Council's priorities. This workforce urgently needs investment, collaboration, and support from the federal government. The time is now to deploy a National Strategy that recognizes their needs in order to promote national and economic security.

Reflecting on the 10-year anniversary of the Boston Bombing, there is a clear path to transform the way our nation prepares its communities for natural and human-made disasters. We should take these lessons learned to create the National Emergency Management Strategy so that when disaster strikes, we all run forward – together.

The Honorable **Richard Serino** is currently a "Distinguished Visiting Fellow" at Harvard University, National Preparedness Leadership Initiative. Mr. Serino was appointed by President Obama and confirmed by the Senate as the Federal Emergency Management Agency's 8th Deputy Administrator in October 2009 and served until 2014. Prior to his appointment as Deputy Administrator, he served as Chief of Boston EMS and Assistant Director of the Boston Public Health Commission. As Chief of Boston EMS, Mr. Serino served as Incident Commander for over 35 mass casualty incidents and for all of Boston's major planned events. During his time at FEMA, he oversaw 60 disasters from flooding in the Midwest, tornado devastation in Missouri, tsunami destruction, and numerous hurricanes. Mr. Serino was on scene at the Boston Marathon bombings in 2013 as the highest-ranking official of DHS. Under Mr. Serino's leadership, FEMA has started the following initiatives such as FEMA Corps, FEMA Stat, the FEMA Think Tank, a detailed budgetary process, and a Disaster Workforce and Workplace Transformation.

New York truck attacker gets 10 life sentences plus 260 years

Source: <https://www.bbc.com/news/world-us-canada-65632186>

May 17 – An Islamic State supporter behind the deadliest terror attack in New York since 9/11 has been told he will die in prison serving multiple life sentences.

Sayfullo Saipov killed eight when he drove a truck at pedestrians and cyclists on a Manhattan street in 2017.

He was given 10 life sentences - eight of which run consecutively - plus 260 years, and will never be released.

As he was sentenced, he was told he had "destroyed so many lives" - but **showed no remorse during the trial**.

Saipov was confronted by victims' families and survivors in court, with the judge noting his "sheer unrepentant nature" during sentencing on Wednesday.

The Uzbekistan national, now 35, used a rented truck to attack cyclists and pedestrians at random on downtown Manhattan's West Side on the evening of Halloween 2017.

He shouted "God is great" in Arabic and was shot by police as he emerged from the vehicle. He hoped the atrocity would earn him membership of the group, a previous hearing was told.

He is expected to be held in Colorado's high-security "supermax" prison, where inmates spend up to 23 hours a day in their cells.

Monica Missio, the mother of victim Nicholas Cleves, told the courtroom: "It disgusts me that he gets to wake up every day while my son does not."

"His barbarism and cruelty fills me with rage," she said.

Rachel Pharn, who survived the attack, said she could forgive Saipov for the impact on herself, but not for the suffering he had caused to others who had come to hear the sentencing.

She added: "When I look around the room, when I think of all the pain you caused, that I cannot forgive. That is between you, them and Allah."



Five of those killed were tourists from Argentina, and a 31-year-old woman from Belgium who was visiting the city also died. Two Americans, a 32-year-old financial worker and a 23-year-old software engineer, were killed, while 12 others were injured. US District Judge Vernon Broderick said Saipov's crimes were notable "both in terms of the impact it had on the victims and on the sheer unrepentant nature of the defendant".

Addressing the court before sentencing, Saipov appeared to repeat his praise of the terror group and suggested he was unmoved by the testimony he had heard.

He was spared the death penalty when a jury did not unanimously agree to impose one at a hearing last week.

EDITOR'S COMMENT: 10 life sentences plus 260 years! What is this? A joke? New York humanity and respect all lives attitude? And US citizens will pay his time in jail for 40 years. Sorry, out of my mental capabilities ...



MEMRI Publishes Preliminary Findings from New Study From Its Domestic Terrorism Threat Monitor (DTTM) Project And Analysis Of AI Developers' Attempts To Sell Technology's Safety While Violent Extremists Plan To 'Wreak Havoc' With It

Source: <https://finance.yahoo.com/news/memri-publishes-preliminary-findings-study-002500008.html>

May 17 – The Middle East Media Research Institute ([MEMRI](#)) published a new analysis piece by MEMRI Executive Director Steven Stalinsky, Ph.D. on violent extremists' use of AI. The piece stresses that this is ongoing as the U.S. Senate Judiciary Committee's Subcommittee on Privacy, Technology, and The Law hosted a [hearing](#) on May 16 about oversight of AI.

The analysis, titled "As AI Developers Try To Sell Senate Hearing On The Technology's Safety, Violent Extremists Are Planning To 'Wreak Havoc' With It," reviews extensive research from the MEMRI Domestic Terrorism Threat Monitor ([DTTM](#)) on AI use by racially and ethnically motivated violent extremists (REMVE). The research will be published later this month in a major new DTTM study, titled "Neo-Nazis And White Supremacists Worldwide Look To Artificial Intelligence (AI) - A National Security Threat In The Making To Which No Government Is Paying Attention - For Purposes Such As Recruitment, Harassing Minorities, And Criminal Activity Including Hacking Banks, Overthrowing Government, Attacking Infrastructure, Promoting Guerilla Warfare, And Using WMDs."

Dr. Stalinsky writes: "Neo-Nazis, white supremacists, and antigovernment groups - racially/ethnically motivated violent extremists, aka REMVE - are discussing and posting about AI use on the main social media platforms that they favor. Privately and openly, they are talking about and testing and using AI, in addition to developing their own versions and recruiting engineers and teams for special projects, including for breaking into banks." He stresses that the most troubling examples found by the DTTM research team in its work studying this topic "involve extremists actually discussing the use of AI for planning terror attacks, including making weapons of mass destruction. One accelerationist group which seeks to bring about the total collapse of society recently conducted, in a Facebook group, a conversation about trying to trick an AI chat bot into providing details for making mustard gas and napalm. These and other examples are detailed in a new MEMRI DTTM report to be released later this month."

Dr. Stalinsky concludes: "Whether the call to halt AI development has come in time remains to be seen. But regardless, this private industry should not be operating without government oversight. It is clear is that the industry needs to follow standards and create guidelines to examine issues like this - moves that have still not been made for terrorist use of social media."

ABOUT THE DOMESTIC TERRORISM THREAT MONITOR (DTTM) PROJECT

For over three years, the MEMRI DTTM team has been monitoring and analyzing the online activity of white supremacists, neo-Nazis, accelerationists, and other domestic extremists in the U.S. and worldwide. The project's main focus is these groups' activity as reported, discussed, and documented in their online communications, including incitement, calls to action (including to violent attacks), real-world activity such as rallies and vandalism, and recruitment and outreach efforts by these groups aimed at a wide range of populations. Most importantly, we monitor violent threats against Jewish organizations and institutions; the Black, Asian, and other minority communities; the LGBTQ+ community; political and other public figures; government officials and agencies, and government in general; and the public at large.

ABOUT MEMRI

Exploring the Middle East and South Asia through their media, [MEMRI](#) bridges the language gap between the West and the Middle East and South Asia, providing timely translations of Arabic, Farsi, Urdu-Pashtu,



Dari, Turkish, Russian, and Chinese media, as well as original analysis of political, ideological, intellectual, social, cultural, and religious trends. Founded in February 1998 to inform the debate over U.S. policy in the Middle East, [MEMRI](#) is an independent, nonpartisan, nonprofit, 501(c)3 organization. MEMRI's main office is located in Washington, DC, with branch offices in various world capitals. MEMRI research is translated into English, French, Polish, Japanese, Spanish, and Hebrew.

Afghanistan Terrorism Report: April 2023

Source ([full text](#)): <https://www.counterextremism.com/blog/afghanistan-terrorism-report-april-2023>

**COUNTER
EXTREMISM
PROJECT**

May 18 – Although ISIS-K-linked propaganda outlets did not highlight various attacks that the group conducted in Afghanistan in April, it seems clear that terror operations [perpetrated by ISIS-K](#) continued in the country, albeit in a reduced manner. This mirrors the developments in other regions in which ISIS-K is active. In the past years, ISIS-core had regularly announced so-called “[Ramadan campaigns](#),” using the holy month of Ramadan for increased activities in several conflict zones paired with propaganda efforts. However, this year no such campaign was announced. Consequently, while [terror attacks](#) continued in the conflict regions where ISIS affiliates operate, for example, in the [Sahel region](#), no significant increase in the overall operational tempo was observable.

As expected, in April, American officials confirmed that the [Taliban had killed](#) the ISIS-K leader of the attack on the [Kabul airport in August 2021](#). ISIS-linked propaganda outlets did not report his death or eulogize him. However, pro-ISIS-K propaganda outlets claimed in several posts that the Taliban are cooperating with the United States on counterterrorism issues. One pro-ISIS-K linked post alleged that the [killing of Ayman al-Zawahiri](#) in Kabul on July 31, 2022, was made possible by information leaked by Taliban rivals of the Haqqani Network that sheltered him. This claim seems to mirror the suggestion [by some experts](#) that U.S. counterterrorism operations in Afghanistan depend to a certain extent on information provided by the Taliban. ISIS-linked outlets also highlighted the role of Pakistan in the alleged counterterrorism cooperation between the United States and the Taliban regime. Interestingly, although ISIS-linked outlets only highlighted a handful of attacks in April, the majority of these were conducted in Pakistan. This could be an indication that ISIS-K intends to increase its operational area beyond the border of Afghanistan in the coming months.

Pro-ISIS propaganda outlets continued to attack the Taliban on ideological grounds. One frequent theme was the activities of Iranian officials regarding Afghanistan's western Province of Nangarhar. Pro-ISIS outlets highlighted the meeting between [Iran's deputy ambassador in Kabul](#) with the governor of the province and increased Iranian activities in the [health sector](#) in that area. In addition, Iran continued to negotiate with the Taliban regime concerning the release of [Iranian prisoners](#) in Afghan jails and the issue of water management concerning the [Helmand River](#), which is a central issue to both countries. These events demonstrate the continuing attempts of the Iranian government to develop its ties with the Taliban regime following the handover of the [Afghan embassy in Tehran](#) to the Taliban at the end of February. Any developing cooperation between the Taliban regime and Iran would further feed into the destabilization role that Tehran is playing in the region.

Pro-ISIS propaganda outlets also mocked the participation of the Taliban at a regional meeting in Uzbekistan, highlighting that the Taliban were only allowed in after its first official part concluded. On April 13, 2023, the fourth meeting of the foreign ministers of Afghanistan's neighboring states brought together the top diplomats from China, Iran, Pakistan, Russia, Tajikistan, Turkmenistan, and Uzbekistan in Samarkand, Uzbekistan. A [Taliban](#) delegation was permitted to attend only part of the meeting. Interestingly, despite the Taliban presence, the [official declaration](#) issued at the end of the conference highlighted the continuing regional and global threat posed by a range of terrorist groups operating in Afghanistan, such as ISIS-K, al-Qaeda, and the Tehrik-i-Taliban Pakistan (TTP) as well as the ongoing illegal drug economy in the country. This indicates that Afghanistan's neighbors, including governments more open to engaging with the Taliban regime, such as Pakistan, Iran, Russia, and China, also continue to see a terrorism threat emanating from the country that goes beyond ISIS-K and includes al-Qaeda. Unfortunately, despite highlighting the importance of humanitarian assistance to the country, the official declaration did not mention the disruption caused by the Taliban decree [banning Afghan women](#) from working for the United Nations in the country.

Following the announcement of this Taliban decision banning Afghan women from U.N. employment, the United Nations decided to send all its [Afghan staff home](#) and to [review its operations](#) in Afghanistan until May 2023. At the beginning of May, a special meeting on the situation in Afghanistan in Doha, Qatar—chaired by U.N. Secretary General [Antonio Guterres](#) and to which the [Taliban were not invited](#)—did not bring any progress on this issue. Indeed, in the runup to the meeting, a statement by U.N. Deputy Secretary General [Amina Mohammed](#) caused confusion as she seemed to suggest that official recognition of the Taliban may be the way forward. Mohammed visited Afghanistan in January 2023. During her trip, she had said “[some progress](#)” had been made on women's rights in Afghanistan. This was an obvious



misreading of the situation since weeks after her visit, the Taliban enforced their decree banning Afghan women from working for the United Nations.

Unfortunately, the consensus between the various stakeholders within the United Nations to resist the Taliban decree seems to be breaking down. Some U.N. agencies [have recalled their Afghan staff](#) to work, despite the continuing Taliban ban on female staff members. Furthermore, according to a leaked email, the United Nations country team decided that all its agencies could now [individually](#) decide how to handle the situation. That the United Nations can no longer present a united front against the Taliban regime means that the international stakeholders have relinquished the limited leverage they had vis a vis the Taliban regime. In essence, it seems that some parts of the U.N. structure in Afghanistan are currently beginning to adhere to the decree. This is even more regrettable since, at the beginning of May, [U.N. experts reported](#) that increasingly female staff members of the United Nations in Afghanistan were harassed and, in some cases, arrested by the Taliban.

Finally, as expected, Afghanistan's overall human rights situation continues to deteriorate. Already in November 2022, Taliban leader [Haibatullah Akhundzada](#) decreed the reinstatement of [harsh punishments](#) in the country. At the beginning of May 2023, a [United Nations report](#) highlighted the increasing use of dehumanizing methods of execution, such as burying the condemned under a wall are used in Afghanistan. [Pleas by the international community](#) to end such practices continue to be rebuffed by the Taliban regime.

CISA and Secret Service Release Toolkit for K-12 Schools to Strengthen School Safety Reporting Programs

Source: <https://www.cisa.gov/news-events/news/cisa-and-secret-service-release-toolkit-k-12-schools-strengthen-school-safety-reporting-programs>

May 16 – Today, the Cybersecurity and Infrastructure Security Agency (CISA) and the U.S. Secret Service National Threat Assessment Center (NTAC) released the [K-12 Bystander Reporting Toolkit](#), a new resource to support kindergarten through grade 12 (K-12) schools in strengthening school safety reporting programs and encouraging bystander reporting among students and the broader school community.

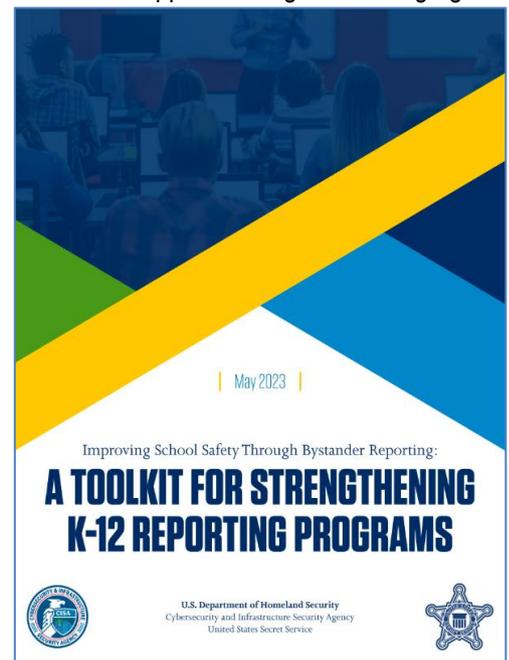
Improving School Safety Through Bystander Reporting: A Toolkit for Strengthening K-12 Reporting Programs offers simple strategies and guidance K-12 schools and school districts can use to implement and enhance safety reporting programs and create a school environment where students are more willing and able to report concerns for the wellness and safety of themselves or others. It is designed to help school leaders create tailored, customized approaches that meet the needs of their unique communities.

Developed in collaboration with the Homeland Security Operational Analysis Center, the toolkit emphasizes five key takeaways for schools to consider as part of their safety reporting efforts:

1. Encourage bystanders to report concerns for the wellness and safety of themselves or others.
2. Make reporting accessible and safe for the reporting community.
3. Follow-up on reports and be transparent about the actions taken in response to reported concerns.
4. Make reporting a part of daily school life.
5. Create a positive climate where reporting is valued and respected.

“It is essential that we work closely with our partners to provide resources that can help prevent targeted school violence. Students and school communities deserve to be safe at school,” said CISA Executive Assistant Director for Infrastructure Security Dr. David Mussington. “Developed with our Secret Service partners, the *K-12 Bystander Reporting Toolkit* outlines simple, action-oriented strategies school leaders can use to develop stronger reporting programs, foster safer and more supportive communities, and ultimately prevent school violence.”

“Targeted school violence is preventable when communities facilitate bystander reporting and promote climates of safety and trust. Our research has shown that students are best positioned to identify and report concerning behaviors displayed by their classmates,” said NTAC Chief Dr. Lina Alathari. “Preventing school violence is everyone’s responsibility. The reporting programs described in this toolkit promote



successful outcomes for all students while fostering a proactive approach to school safety.” The toolkit applies to schools comprising of a range of student populations, geographical settings, and at various levels of maturity in their approach to reporting. In addition to best practices and strategies, the toolkit includes self-assessment worksheets and checklists and a list of related school safety resources and tools. The toolkit represents the latest effort in CISA’s and the Secret Service’s shared school safety mission, which includes providing schools with actionable, practical, and cost-efficient steps toward preventing harm or acts of violence among our most important populations.

●► To learn more about and access the *K-12 Bystander Reporting Toolkit*, visit [here](#).

EDITOR’S COMMENT: Bystander reporting is nice and useful! But the fortification of classroom doors is even better and does not cost much! Same for antivandal windows and inside isolation doors! And can be done today!

The Terrorist Threat in the Gulf of Guinea

By Ana Aguilera

Source: <https://eeradicalization.com/the-terrorist-threat-in-the-gulf-of-guinea/>

May 23 – Terrorist activity in the Sahel region is undergoing a process of transformation and expansion that threatens to destabilize the countries in their immediate neighborhood. As a strategic area with access to the sea, the Gulf of Guinea has been a major victim of the Sahel violence since the increase in terrorist incursions in countries such as Côte d’Ivoire, Togo, and Benin in 2020. It has witnessed a significant increase in terrorist activity in recent years compared to previous levels of violent insurgence, and this has led to concerns about the safety and security of the region as a whole as well as the potential for economic and political disruption.



Dynamics of Terrorist Violence in the Gulf of Guinea

West Africa is considered the epicenter of global terrorist activity today. Burkina Faso, Mali, and Nigeria [occupy](#) the three highest positions in the top 5 Islamist-related attacks by country in 2021, behind Afghanistan and closely followed by Iraq.

The virulence with which regional franchises of Al Qaeda, most notably Jamaat Nasr al-Islam wal-Muslimeen (JNIM, the Support Group for Islam and the Muslims), and the Islamic State, particularly Islamic State in the Greater Sahel (ISGS), have managed to chronicle the armed conflict in the Sahelian countries is putting the regional security forces, which had so far managed to evade terrorist activity in their territory, in a bind.

In June 2020, an attack on a site of the Ivorian army [ended](#) four years of absence of terrorist attacks within its borders. In Togo, the border areas with Burkina Faso and Benin are an incessant source of both successful and thwarted attacks, and in the case of the latter, more than twenty terrorist attacks have been recorded in 2022 alone. The JNIM coalition is predominant in the Gulf of Guinea, as members of this group are behind multiple attacks recorded during the last year. In November alone, three attacks [were recorded](#) in Benin: the first, on the border with Niger; the second, near the border with Burkina Faso; and the third on the border with Nigeria. Meanwhile, Togo suffered from two attacks perpetrated in the town of Tiwoli (near Burkina Faso) by members of JNIM during the same period. Projections had warned of a possible spread of the terrorist threat across wider spaces of West Africa, an assessment exercise also supported by experts and intelligence services on the ground. Recent incursions since the pandemic and the relentless history of violence against checkpoints, border points, and civilian targets highlight the Gulf of Guinea as the new target for terrorists. The three coastal countries are now facing the fighters of these armed groups and an ideology that is permeating a population witnessing the social decay and insecurity in their Sahelian neighbors. For its part, the only country in the Gulf of Guinea that has so far managed to elude the wave of terrorist attacks, the small nation of Ghana, is also perceiving a very high degree of threat. In its latest annual report in May 2022, the West Africa Center for Countering Extremism (WACCE) [showed](#) its fervent concern about the southward advance of terrorism in the Sahel, making “border regions of Northern Ghana vulnerable and a possible target for extremist exploitation”.



The struggle for control and access to resources, and the illicit networks transiting a wide range of commodities over these vast areas and arriving from seaports further aggravate the reality faced by the local population. Despite not having found an empirical [link](#) between maritime piracy and terrorist groups operating in West Africa, further analyses are emerging that try to anticipate this potential challenge. The consequences of a symbiotic relationship or a prolonged link between smuggling and piracy networks on the coasts of the Gulf of Guinea and terrorism would bear negative effects, as it would cause great costs and losses at the economic and social levels and would foreseeably have a strong impact on the political stability of the countries under study. The inability of the authorities to control these groups or the rapid reconversion of counter-terrorist alliances in countries hardest hit by terrorist virulence is substantially complicating armed groups' continued gain of ground, power and influence across West Africa. The diplomatic turbulence between Mali and France, hitherto its preferred partner, has caused diplomatic relations and bilateral counter-terrorism efforts to be deeply undermined, [ceding](#) ground to other missions with the same objective such as the United Nations Multidimensional Integrated Stabilization Mission (MINUSMA) or new strategic alliances with paramilitary forces such as the Wagner Group. Thus, and in view of the long volume of incursions on their borders, aggravated since 2021, the countries of the Gulf of Guinea have been forced to [expand](#) the allocations for defense budgets and adopt measures to ensure a joint counterterrorism fight. Various regional coalitions have emerged in response to the extremist surge, with several operations led by Côte d'Ivoire and other countries in the region seeking to mitigate the capacity and impact of violent acts committed both within and on the periphery of their boundaries.

Conclusion

Overall, the terrorist threat in the Gulf of Guinea is a serious concern that requires a comprehensive and coordinated response from the international community and countries in the region. Providing support to countries in the Gulf of Guinea can lead to an improvement in their capacity to combat terrorism and other related criminal activities such as piracy, while promoting stability and economic growth in the region. As there is no optimistic forecast pointing to a decrease in terrorist violence in the southern coastal countries of West Africa, it is also a warning for the littoral countries in the Atlantic, which are already making [preventive efforts](#) to contain this potential threat within their territories in the near future. This spread necessitates a joint response in the context of deteriorating trust and collaboration between Mali and the other countries of the West African flank.

The threat assessment will need to be accompanied by the study of other related factors such as economy and politics, as upheavals on the political chessboard have led to coups in more than four West African countries between 2021 and 2022. Unless a coordinated solution is sought that efficiently executes tools and resources between intra-regional security forces, terrorism in West Africa risks becoming the next source of conflict with ramifications not only in this region but also in the north and center of the continent.

Ana Aguilera is a researcher at the International Observatory for Terrorism Studies (OIET) in Spain and Coordinator of the Young Researchers Program.



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CHEM NEWS



CJNG Chemical Dispersing IED Array Neutralized

By Shair Arbel (CEO, Terrogece Global, Israel)

Source: <https://nct-cbnw.com/cjng-chemical-dispersing-ied-array-neutralized/>

Apr 23 – On 27 December 2022, municipal authorities of Coahuayana, Mexico, reported the discovery of a chemical dispersing improvised explosive device (IED) array comprising jars of carbamate insecticides attached to sticks of dynamite, daisy-chained with electric wire planted at intervals of ten meters on a narrow road on the banks of the Coahuayana River, on the border of the Mexican states of Colima and Michoacán.

This is the first known attempt by a criminal group to use a chemical dispersing IED in this arena and it is described as a new narcoterror tactics, techniques, and procedures (TTPs) by Mexican authorities. While the IEDs were neutralized on this occasion, the threat had the potential to harm not only the targeted self-defense group, but could also have environmental and economic repercussions.

Chemical Dispersing IED Array Neutralized in Coahuayana, Michoacán, Mexico

On December 27, 2022, residents of Coahuayana, in Mexico's Michoacán State, discovered a chemical IED array comprising over a dozen glass jars containing insecticides, some strapped to sticks of dynamite, planted approximately 10 meters apart and connected with electric wire on the side of a narrow road along the banks of the Coahuayana River, near the Callejones diversion dam, on the road to Cerro de Ortega, on the border of Colima and Michoacán states.

Reportedly, members of the *Cártel Jalisco Nueva Generación* (CJNG) who attempted to initiate the IED array were repelled by local heavily-armed self-defense groups who valiantly resist the CJNG in Coahuayana. These groups protect an area called "Colonia de la Paz" anchored between the sea and vast banana plantation fields, where people forcibly displaced by CJNG violence have found refuge and are willing to fight to protect it. The CJNG has repeatedly attacked the area using armed drones and heavy firepower as it seeks to secure access for its smuggling routes to the sea in Coahuayana.

According to the reporting, the neutralization of the IEDs took 48 hours, probably owing to the limited police and army presence in this area. The two insecticides in the IEDs were identified as **methomyl and carbofuran**, both carbamates, a teaspoon of either can kill a human, affecting the central nervous system.

●► [Read the full article at the source's URL.](https://nct-cbnw.com/cjng-chemical-dispersing-ied-array-neutralized/)

Country Profile: The Netherlands

Source: <https://nct-cbnw.com/country-profile-the-netherlands/>

Apr 21 – The Netherlands has been sharply increasing its spending in the field of security and defense, being one of the main supporters of a greater level of commitment in defense partnerships and of a more self-reliant Europe.

In its 2022 [Defence White Paper](#), entitled "A stronger Netherlands, a safer Europe – Investing in a robust NATO and EU", the Dutch Ministry of Defense (MOD) openly announced investments of around 15 billion euros between 2022 and 2025 in the field of security and defense in order to strengthen its military and civilian capabilities.

The "Defence Vision 2035 – Fighting for a safer future", a document issued by the MOD, illustrates the action plan for the years ahead, based on three goals: technological development, a solid system of information and affirmation as a reliable partner.

Among those actions, the Netherlands commits to accomplish some "National Tasks", including the strengthening of counter CBRNe capabilities.

The National Security Strategy issued in 2019, CBRN threats, more precisely CBRN proliferation and radiation accidents, were enlisted among the country's security risks. This year the Strategy will be updated.





CBRNe Foundations

The Dutch position towards the containment of CBRNe threats has always been clear and linear. It is party to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT), the Biological Weapons Convention, the Chemical Weapons Convention, the Comprehensive Nuclear-Test-Ban Treaty, the Convention on Cluster Munitions, the International Convention for the Suppression of Acts of Nuclear Terrorism, the Partial Test Ban Treaty, Outer Space Treaty, and the Anti-Personnel Mine Ban Convention.

It is part of all the four main multilateral export control regimes, namely the Wassenaar Arrangement, the Nuclear Suppliers Group, the Australia Group, and the Missile Technology Control Regime.

Regarding its internal legal framework, the “[Safety Regions Act](#)” establishes 25 safety regions within the Dutch territory that mediate between the local civil protection bodies and the national one by organizing central emergency control rooms. These 25 regional management boards provide advice to fire brigades, police, and medical services in the event of CBRN incidents.

●► [Read the full article at the source's URL.](#)

Assessing ISIL CBRN Physical & Digital Capabilities

By Mr. Pehr Lodhammar and Ms. Elizaveta Busygina

Source: <https://nct-cbnw.com/assessing-isil-cbrn-physical-digital-capabilities/>

Apr 23 – The Islamic State of Iraq and the Levant (ISIL) has been reported to develop improvised chemical and biological weapons in Iraq and Syria. Over the last few years, more information about ISIL attempts to manufacture and use chemical and biological weapons has been gathered both from battlefield evidence and open sources. While ISIL might not have been successful in developing their CBRN capabilities to the extent that would result in mass casualties, new evidence suggests that the organisation is still potentially capable of developing weapons of mass destruction and is exploring new avenues for distribution of CBRN training materials.





Background

The Islamic State of Iraq and the Levant has been reported to use improvised chemical and biological weapons in its attacks. These weapons were typically created by ISIL using readily available materials, designed to inflict harm on civilians and military personnel alike.

In October 2020, Dr. Mark Wilkinson published his article "Evidence-based Warfare" in CBRNe World providing an overview of ISIL capability for the production and use of chemical weapons in Mosul. After the article was written, more information about the Islamic State's attempts to develop and use chemical and biological weapons has been gathered both from battlefield evidence and open sources. So, what do we know now, two and a half years later and what more have we learnt about ISIL CBRN capabilities through their presence online?



A refrigerator suspected to contain biological hazards was discovered at Mosul University in the nuclear and molecular physics laboratory of Mosul University post liberation in 2017. The contents were destroyed through incineration before the suspected biohazardous material could be ascertained.

Overview of the ISIL CBRN Program

The Islamic State's persistent efforts to manufacture and weaponize CBRN materials have been widely recognized, both during and in the aftermath of the conflict. Between 2017 and 2019 during clearance operations conducted by

United Nations Mine Action Service (UNMAS) in the liberated areas of Iraq, dual-use precursors, and various types of delivery systems for chemical substances used by ISIL were discovered in multiple locations, including rockets, 120 mm artillery shells and hand grenades. Retrospectively, the first reports of the use of chemical agents by ISIL can be traced back to 2014. In October 2014, the U.S. initiated an investigation on the use of chlorine gas by ISIL against Iraqi security forces. Subsequently, in March 2015, Kurdish officials announced that the militants used chlorine gas in a roadside attack against the Peshmerga forces near Mosul. Later, in August 2015 ISIL reportedly deployed mustard gas on Kurdish forces southwest of Erbil, which was confirmed by the Organisation for the Prohibition of Chemical Weapons (OPCW).

According to IHS Conflict Monitor, by the end of 2016 ISIL used chemical weapons at least 52 times on the battlefield in Syria and Iraq. It is believed, however, that the main difficulty ISIL encountered in the development of their chemical weapons' capability was the weaponization of chemical substances and their effective delivery on targets. Despite UNMAS having found a variety of explosive weapons designed as delivery systems for chemical agents, there are few confirmed incidents where ISIL successfully used chemical weapons in situations that resulted in significant losses.

●► [Read the full article at the source's URL.](#)



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Pehr Lodhammar has been the Chief Mine Action Programme for UNMAS Iraq for the last six years. Pehr has 33 years of professional experience from leading military and humanitarian explosive hazard management operations and programmes in 14 countries in combination with extensive experience from operational activities. As a highly engaged advocate for mine action in Iraq he often leads from the front while engaging with the highest levels of Iraqi leadership to support Iraqi mine action.

What's the next thing to worry about? New summits unpick radiological and biological threats

By Dr. Tim Sandle

Source: <https://www.digitaljournal.com/tech-science/whats-the-next-thing-to-worry-about-new-summits-unpick-radiological-and-biological-threats/article>



Hospitals across China are overwhelmed by an explosion of Covid cases following Beijing's decision to lift restrictions that kept the virus at bay but tanked its economy and sparked mass protests - Copyright AFP/File Noel CELIS

Apr 25 – How well equipped are governments and their advisers for preparing for the next disaster? Having seen a mixed array of responses to COVID-19 and to various local incidences over the past few years, this is a question that many citizens will be wondering. Even the home, which mentally some picture as a 'sealed fortress', does not provide immunity from the world. [New summits are set to explore](#) radiological and biological risks to the built environment.



This includes assessments from experts in nuclear weapons, radioactive materials, bioterrorism, infectious disease transmission and other calamities that could wait us.

The built environment may offer a degree of protection; however, buildings are porous and permeable, allowing microbes, pathogens and even radioactive elements to slip inside unnoticed.

To help ensure that U.S. buildings can withstand terrorism, pandemics and tragic accidents, Northwestern University is working with Idaho National Laboratory, the U.S. Department of Energy Office of Nuclear Incident Policy and the National Nuclear Security Administration.

This takes the form of a series of summits, each designed to assess strategies against specific threats and to create a national test and evaluation process so that officials can investigate building vulnerabilities. Post-investigation, a series of recommendations can then be made to mitigate the risks.

Termed the [Built Environment Surveillance Testbed](#) (BEST) summits, these events begin during April 2023. The virtual events are run from the Idaho National Laboratory and they begin with radiological risks.

The focus is with areas like radiological detection, emergency response and decontamination. The event will discuss different forms of radiation, appropriate emergency training and response, different types of radioactive materials, the threat of nuclear weapons, the impact upon environmental health and the specific threats posed by terrorism.

The next event, scheduled for June 13, is dedicated to biological risks. Her the focus will be with preparedness for bioterrorism and infectious disease transmission.

Speakers include [Aaron Packman](#), who is an expert in waterborne disease transmission and water-based epidemiology and [Erica Hartmann](#), an indoor microbiologist and an associate professor of civil and environmental engineering.

While managers of many buildings mobilised quickly to provide hand sanitiser, encourage the use of face coverings, and implement social-distancing measures, it was not always easy to provide clean air for people to breathe.

The two will draw upon the effectiveness of the wide range of technologies that were developed during the COVID-19 pandemic to see how they can be further applied. This includes techniques for monitoring pathogens in building air and water systems as well as methods to improve building ventilation, air filters and surface disinfection to reduce transmission risks.

[Dr. Tim Sandle](#) is Digital Journal's Editor-at-Large for science news. Tim specializes in science, technology, environmental, and health journalism. He is additionally a practising microbiologist; and an author. He is also interested in history, politics and current affairs.



Pueblo first responders train on how to help animals exposed to dangerous chemicals

Source: <https://krdo.com/top-stories/2023/04/14/pueblo-first-responders-train-on-how-to-help-animals-exposed-to-dangerous-chemicals/>

Apr 14 – Dozens of first responders in Pueblo spent the day taking part in some animal decontamination training. Friday, employees with the Humane Society of the Pikes Peak Region, Pueblo Fire Department, Pueblo County Sheriff's Office Emergency Services Bureau, and the Pueblo Department of Public Health and Environment trained on animal decon in preparation for the upcoming Chemical Stockpile Emergency Preparedness Program exercise in May.

On Lake Ave., decontamination tents and equipment were set up at Fire Station 4 where two pups went through the decontamination process

This process would be used if animals were exposed to a hazardous chemical. Techniques for the safe handling of animals, their decontamination, and the roles and responsibilities of the



various agencies were discussed and practiced. According to the sheriff's office, the two dogs used in the training belonged to an HSPPR employee.

Chemical, Biological, Radiological and Nuclear (CBRN) threats in wartime situations: The impact on breastfeeding safety and infant/young child feeding practices

Source: <https://reliefweb.int/report/world/chemical-biological-radiological-and-nuclear-cbrn-threats-wartime-situations-impact-breastfeeding-safety-and-infantyoung-child-feeding-practices>

Apr 03 – Guidance released on the impact of chemical, biological, radiological and nuclear (CBRN) threats on infants, young children and breastfeeding women

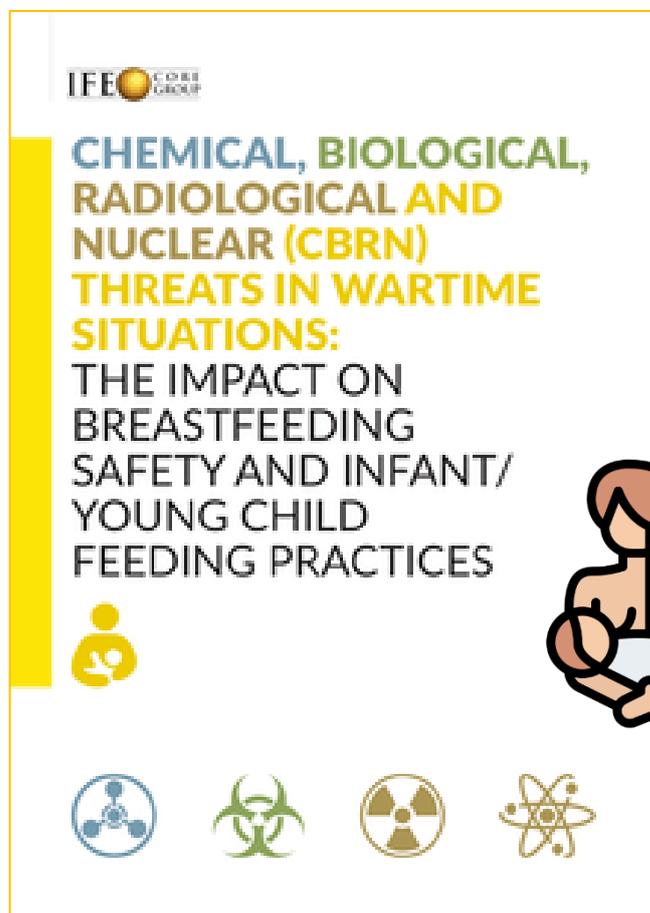
CBRN emergencies are among the most alarming threats facing the world today. In modern warfare, there is increased risk of chemical, biological, radiological, and nuclear (CBRN) weapons exposure and of nuclear emergencies due to damage to nuclear power plants. Most international agencies have action guidelines for the general population, but an urgent gap exists in guidance specifically for the breastfeeding population. Before now, there was no centralised place for agencies or individuals to go to access vital information about the treatment of breastfeeding women, infants and young children and the safety of breastfeeding in CBRN crises.

In response to the lack of critical information, the [Infant Feeding in Emergencies \(IFE\) Core Group](#), along with the [Johns Hopkins Center for Humanitarian Health](#), has created [guidelines](#) for the breastfeeding population in the context of the most common chemical and biological agents along with guidance for the first three days after a nuclear power plant emergency.

Sharon Leslie, co-author of the guidance report says, "Our work was originally initiated in response to attacks on nuclear power plants and the risk of chemical and biological warfare in Ukraine. It became very clear that the information was also needed for other parts of the world and for future crises. We know that in wartime situations, women and young children are often the most vulnerable and most impacted. The guidelines help clearly address the gap that exists in protecting women and children and can be easily integrated into disaster guidelines and policies for countries and NGOs around the world."

The guidance is a multi-disciplinary effort, drawing on expertise from a wide variety of fields including medical toxicology, infant feeding in emergencies, health security, CBRN preparedness, infectious disease, disaster response, and nuclear physics, among others. The evidence-based work is intended for policymakers, healthcare workers and emergency planners and can be used alongside existing guidance for the general public and healthcare workers. This remains an evolving field and the guidance will be updated as new information is available.

Jodine Chase, Facilitator of the IFE Core Group, added, "we sincerely hope that these guidelines will never need to be used, but given the current geopolitical landscape we face, it was imperative that we had sound, easy to understand guidelines for crisis situations. In addition to guidance on specific treatment for breastfeeding women, infants and young children, the guidance details how to handle potential contamination of food that may be consumed by young children and those who are breastfeeding. All our evidence points to how much breastfeeding saves lives, particularly in disasters and emergencies. This kind of information is critical to determining when breastfeeding can be safely continued in the face of a CBRN event and ensuring that there is advice and support for those caring for infants and children that are dependent on commercial infant formula and other foods."





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Prediction of chemical warfare agents based on cholinergic array type meta-predictors

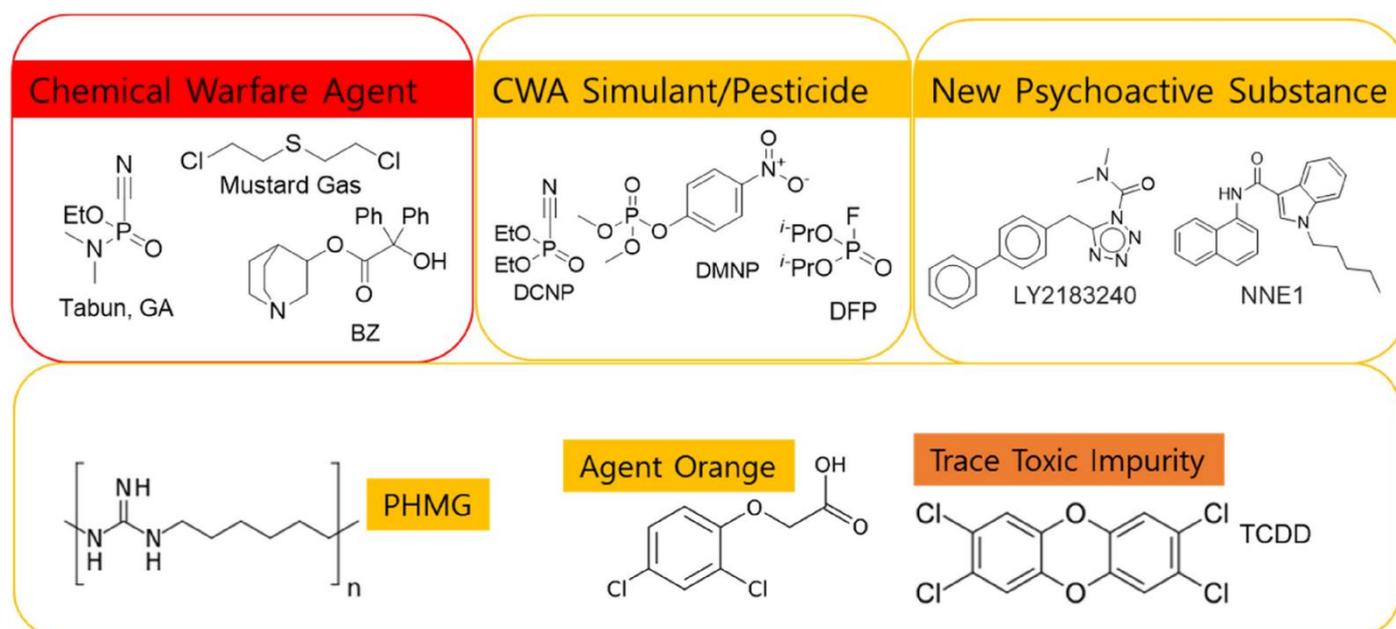
By Surendra Kumar, Chandni Kumari, Sangjin Ahn, Hyoungrae Kim, and Mi-hyun Kim

Scientific Reports volume 12, Article number: 16709 (2022)

Source ([full article](https://www.nature.com/articles/s41598-022-21150-2)): <https://www.nature.com/articles/s41598-022-21150-2>

Abstract

Molecular insights into chemical safety are very important for sustainable development as well as risk assessment. This study considers how to manage future upcoming harmful agents, especially potentially cholinergic chemical warfare agents (CWAs). For this purpose, the structures of known cholinergic agents were encoded by molecular descriptors. And then each drug target interaction (DTI) was learned from the encoded structures and their cholinergic activities to build DTI classification models for five cholinergic targets with reliable statistical validation (ensemble-AUC: up to 0.790, MCC: up to 0.991, accuracy: up to 0.995). The collected classifiers were transformed into 2D or 3D array type meta-predictors for multi-task: (1) cholinergic prediction and (2) CWA detection. The detection ability of the array classifiers was verified under the imbalanced dataset between CWAs and none CWAs (area under the precision-recall curve: up to 0.997, MCC: up to 0.638, F1-score of none CWAs: up to 0.991, F1-score of CWAs: up to 0.585).



Chemical threats include chemical warfare agents (CWAs) having assigned NATO codes, CWA stimulants, new psychoactive substances (NPSs) and chemical hazards such as PHMG (sterilizer) and TCDD.

Blow flies can be used to detect use of chemical weapons, other pollutants

Source: <https://www.chemeuropa.com/en/news/1175420/blow-flies-can-be-used-to-detect-use-of-chemical-weapons-other-pollutants.html>

Mar 30 – Researchers at the School of Science at IUPUI have found that blow flies can be used as chemical sensors, with a particular focus on the detection of chemical warfare agents. Despite widespread bans, chemical weapons have been deployed in recent conflicts such as the Syrian civil war, and some experts fear they may be used in the war in Ukraine. An IUPUI study shows that blow flies could be used as a safer alternative for investigating the use of these weapons - as well as other chemicals in the environment - keeping humans out of potentially dangerous situations. The work appears in the journal *Environmental Science and Technology*. The research was funded through a contract from the U.S. Defense Advanced Research Projects Agency. "Blow flies are ubiquitous, and they are very adept at sampling the environment around us," said Christine Picard, an associate professor of biology and director of the Forensic and Investigative Sciences Program in the School of Science at IUPUI. "They will fly through the environment, taste it, and that information will



be stored in their guts. Through a series of experiments, we were able to look at how different environmental factors would impact their detection of chemical weapon simulants."

The team of students who conducted the experiments using a chemical weapon simulant were led by Nick Manicke, an associate professor of chemistry and chemical biology and of forensic and investigative sciences at IUPUI. A chemical weapon simulant shares features of actual chemical warfare agents - but is not poisonous to people - as well as pesticides, which are chemically similar to chemical warfare agents in the terms of their molecules' behavior.

"We used a mass spectrometer to determine what chemicals were in the blow flies' guts," Manicke said. "We were able to detect the chemical warfare agent simulants, and also some of the things chemical agents get broken down into once they're in the environment. If a fly were to come across a water source, with a chemical agent hydrolyzed in the water, we would find that in the fly."

While chemical warfare agents do not persist for long in the environment, the researchers found they're preserved well enough in the fly's guts for chemical analysis. They also were able to detect the chemical warfare agent simulants up to 14 days after a fly's initial exposure -- illustrating a safer alternative for the collection of samples, without risking human lives.

"If an area is too dangerous, too remote or in an access-restricted area -- or if one just wanted to collect samples covertly -- then one just needs to put out some bait and the flies will come to the bait," Manicke said. "We can scan through big areas by drawing the flies into a trap and analyzing what is in their guts." This research also has important applications for environmental scientists who want to understand how pollutants, such as pesticides, move through the environment.

"Due to the collaboration between Dr. Manicke and Dr. Picard, we were able to work on a project with the potential to make a direct impact," said Sarah Dowling, a Ph.D. student who co-authored the study. "It is fulfilling to know that the work we did throughout this project could improve the safety of warfighters and others who deal with chemicals in the environment."

Next, the researchers plan to apply what they learned from this study toward a new two-year project funded by the Army Research Office on Environmental Chemistry. This work will focus on the detection of molecules from "insensitive munitions," which are a new type of explosive compounds that are less likely to detonate by accident. Because of this, however, they tend to deposit more in the environment. Using blow flies from areas that are remote or dangerous, Manicke and Picard will look for traces of insensitive munition compounds in the flies, indicating environmental contamination.



Smarter sensor sniffs out target gases

Source: <https://www.chemeurope.com/en/news/1178499/smarter-sensor-sniffs-out-target-gases.html>

Nov 2022 – The device, developed at KAUST (King Abdullah University of Science and Technology), uses machine learning to differentiate the gases according to the way they induce slight temperature changes in the sensor as they interact with it.

Smart electronic sensors that can detect specific airborne molecules are in great demand for use in applications from medical diagnostics to the detection of dangerous industrial gas leaks. The challenge is to accurately detect the target gas among the complex mixture of chemicals typically found in the air, says Usman Yaqoob, a postdoc in the labs of Mohammad Younis, who led the research.

The team's sensor could be used in settings that require sensitive testing for gases, such as medical diagnostics or for the detection of dangerous industrial gas leaks.



“Existing sensing technologies still suffer from cross-sensitivity,” Yaqoob says.

Rather than turn to exotic materials or special coatings to try to improve sensor selectivity, the team is applying machine learning. On the hardware side, the heart of the device is a heated strip of silicon called a microbeam resonator. When the microbeam is clamped at both ends, so that it is bent almost to buckling point, the frequency at which the microbeam resonates is very responsive to changes in temperature.

“When operated near buckling point, the heated microbeam shows significant sensitivity to different gases when they have a heat conductivity lower or higher than air,” Yaqoob says. Gases with a higher thermal conductivity than air, such as helium and hydrogen, cool the microbeam, which increases its stiffness and its resonance frequency. Gases such as argon, with a lower thermal conductivity, have the opposite effect. “The shift in resonance frequency is detected using a microsystem analyzer vibrometer,” Yaqoob says.

The team then used artificial intelligence to analyze the data and identify characteristic changes in resonance frequency corresponding to the different gases. “Data processing and machine learning algorithms are used to generate unique signature markers for each tested gas to develop an accurate and selective gas classification model,” Yaqoob says. Once trained on data from the sensor’s response to helium, argon and CO₂, the algorithm could then identify these gases with 100 percent accuracy in an unknown dataset.

“Unlike traditional gas sensors, our sensor does not require any special coating, which enhances the chemical stability of the device and also makes it scalable,” Younis says. “You can scale the device down to the nano-regime without affecting its performance since it does need a big surface for the coating,” he says.

What happened when WMD experts tried to make the GPT-4 AI do bad things

By Thomas Gaulkin

Source: <https://thebulletin.org/2023/03/what-happened-when-wmd-experts-tried-to-make-the-gpt-4-ai-do-bad-things/>

Mar 30 – Hundreds of industry, policy, and academic leaders signed an [open letter](#) this week calling for an [immediate moratorium](#) on the development of artificial intelligence “more powerful than GPT-4,” the large language model (LLM) [released this month](#) by OpenAI, an AI research and deployment firm. The letter proposes the creation of shared protocols and independent oversight to ensure that AI systems are “safe beyond a reasonable doubt.”

“Powerful AI systems should be developed only once we are confident that their effects will be positive and their risks will be manageable,” said the letter, which was published by the Future of Life Institute on its website.

The letter follows an explosion of [interest and concern](#) about the dizzying pace of AI development after OpenAI’s DALL-E image generator and ChatGPT bot were released last year. After the release of GPT-4, even more attention has been paid to the technology’s sensational capabilities (and sometimes comical failures). Reactions in news and social media commentary have ranged from ecstatic to horrified, provoking [comparisons to the dawn of the nuclear age](#)—with all its attendant risks. An entire new economy around ChatGPT-related services has [sprung up](#) practically overnight, in a frenzy of AI-related investment.

The letter’s call for a temporary halt on AI development may not be entirely at odds with OpenAI’s own recent representations of its outlook on the issue. The company’s CEO, Sam Altman, recently said [“we are a little bit scared of this”](#) and has himself [called for greater regulation](#) of AI technologies. And even before the world reacted to GPT-4 and ChatGPT’s release, OpenAI’s creators appear to have been sufficiently concerned about the risks of misuse that they organized months of testing dedicated to identifying the worst things that the AI might be used for—including the proliferation of weapons of mass destruction.

As detailed in OpenAI’s unusually explicit [“system card”](#) accompanying the public launch of GPT-4, researchers and industry professionals in chemical, biological, and nuclear risks were given access to early versions of GPT-4 to help the company “gain a more robust understanding” of its own GPT-4 model and “potential deployment risks.”

After ChatGPT was first publicly released in November 2022, researchers in various fields posted about their informal [experiments](#) trying to make the system reveal dangerous information. Most of these experts, like the rest of the public, were playing with a public version of GPT that featured safety features and reinforcement learning through human feedback (RLHF) to provide more relevant and appropriate responses. The results were rarely alarming in themselves, but they indicated that the model was capable of being tricked into doing things its designers had directly tried to prevent.

In the months before GPT-4’s public release, OpenAI’s hand-picked teams of experts were tasked with “intentional probing” of the pre-release version of GPT-4. According to OpenAI’s report, those tests generated a variety of harmful responses, including “content useful for planning attacks or violence.” In a three-page section on “Proliferation of Conventional and Unconventional Weapons,” the system card describes testing to explore



whether the AI models could “provide the necessary information to proliferators seeking to develop, acquire, or disperse nuclear, radiological, biological, and chemical weapons.”

2.6 Proliferation of Conventional and Unconventional Weapons¹⁵

Certain LLM capabilities can have dual-use potential, meaning that the models can be used for “both commercial and military or proliferation applications”.[56] We subjected the model to stress testing, boundary testing, and red teaming¹⁶ in four dual-use domains to explore whether our models could provide the necessary information to proliferators¹⁷ seeking to develop, acquire, or disperse

¹⁵We focus here on unconventional weapons, but note that large language models like GPT-4 can also contribute to conventional weapons such as, for example, small arms.

¹⁶We note that in the past we have used the term red teaming somewhat differently than traditional usage in cybersecurity.[26] Throughout this system card, we refer to the people performing stress testing, boundary testing, and red teaming as “red teamers” for simplicity and in order to use language consistent with that we used with our collaborators.

¹⁷When referring to proliferation, the System Card uses the definition offered by the North Atlantic Treaty Organization. “WMD proliferation refers to attempts by state or non-state actors to develop, acquire, manufacture, possess, transport or transfer nuclear, radiological, chemical or biological weapons or devices and their means of delivery or related material, including precursors, without prejudice to the rights and obligations of the States Parties to the

This section of OpenAI’s “[system card](#)” document for GPT-4 may represent the first time the NATO definition of WMD proliferation has been cited as part of the announcement of a Silicon Valley product.

Lauren Kahn is a research fellow at the Council on Foreign Relations and one of the experts OpenAI invited to test the early version of GPT-4. She studies how AI could increase (or decrease) the risk of unintentional conflict between countries and was asked to evaluate how GPT-4 might exacerbate those risks. Kahn said she spent about 10 hours directly testing the model, largely with the “non-safety” version of the pre-launch GPT-4 model. “I could kind of push the upper bounds and see what knowledge and capabilities it had when it came to more niche security topics,” Kahn said.

Other experts involved in the testing had expertise in chemical weapons and nuclear warhead verification. Neither OpenAI’s system card nor any of the testing experts the *Bulletin* contacted disclosed details about the specific testing that was conducted, but Kahn said she generally evaluated how GPT-4 could aid disinformation, hacking attacks, and poisoning of data to disrupt military security and weapons systems. “I was kind of trying to tease out: Are there any kind of novel risks or things really dramatic about this system that make it a lot more dangerous than, say, Google,” she said.

Kahn’s overall impression was that, from a weapons standpoint, the current threat posed by GPT itself is not that pronounced. “A lot of the risk really comes from malicious actors, which exist anyway,” she said. “It’s just another tool for them to use.” While there was no rigorous testing comparing the speed of queries using GPT-4 versus other methods, Kahn said the procedural and detailed nature of the responses are “a little bit novel.” But not enough to alarm her.

“I didn’t think it was that scary,” Kahn said. “Maybe I’m just not malicious, but I didn’t think it was very convincing.”

John Burden, a research associate at the Centre for the Study of Existential Risk at the University of Cambridge, studies the challenges of evaluating the capability and generality of AI systems. He doesn’t believe the latest version of GPT will increase the likelihood that a bad actor will decide to carry out his or her bad intentions. “I don’t know if the doing-the-research bit is the biggest roadblock [to illicit WMD acquisition or use],” Burden said. “The part that’s maybe more worrying is [that] it can just cut out research time.”

OpenAI’s system card notes that successful proliferation requires various “ingredients,” of which information is just one. “I’m really glad that they point that out,” said Yong-Bee Lim, deputy director of the Converging Risks Lab at the Council on Strategic Risks. “It didn’t really seem to provide scientific steps to actually go from material acquisition to the subsequent steps, which is researching and developing and optimizing your pathogen or your biochemical, and then finding a way to distribute it.”

Even if GPT-4 alone isn’t enough to lead to the proliferation or use of weapons of mass destruction, the experts’ evaluation found that it “could alter the information available to proliferators, especially in comparison to traditional search tools.” They concluded that “a key risk driver is GPT-4’s ability to generate publicly accessible but difficult-to-find information, shortening the time users spend on research and compiling this information in a way that is understandable to a non-expert user.”



While the system card report includes samples of testers' prompts and GPT-4's responses in other areas of concern (like disinformation and hate speech), there are few specific examples related to weapons. Sarah Shoker, a research scientist at OpenAI credited with the report's "non-proliferation, international humanitarian law, and national security red teaming," [tweeted](#) that "the goal was to balance informing good-faith readers without informing bad actors." But even the general capabilities outlined in the section are disquieting:

"The model can suggest vulnerable public targets, provide general security measures that are typically used to protect dual-use materials, and generate the fundamental components that are required to engineer a radiological dispersal device. The model readily re-engineered some biochemical compounds that were publicly available online, including compounds that could cause harm at both the individual and population level. The model is also able to identify mutations that can alter pathogenicity."

The system's ability to provide helpful feedback about sinister schemes was also notable:

"Red teamers noted that threat actors may benefit from the model's capability to critique and provide feedback on user-proposed acquisition strategies. Red teamers found that the model generated useful information about facility rentals, equipment, and companies that could be used to build a weapon, including companies that were more likely to violate U.S. export restrictions."

Without providing more detail, the OpenAI report asserts these kinds of potentially harmful responses were minimized in the publicly released version through "a combination of technical mitigations, and policy and enforcement levers." But "many risks still remain," the report says.

"It's important to think about these questions of proliferation and how [LLMs] can aid if the technology significantly changes, or is hooked up to other systems," Kahn said. "But I don't really see [GPT], as it stands by itself, as something that will dramatically allow individuals to circumvent export controls ... or access privileged knowledge." Burden said other developments in AI machine learning present dangers that are much more concrete. "At the moment, the biggest risk would be from some bad actor, possibly a state, looking at using AI to directly figure out synthetic compounds, or whatever that might be bad ... directly harnessing that and investing in that more would probably be worse [than GPT-4] at this point."

It's not clear whether any of the expert testers had access to add-on plugins that OpenAI has released since the launch of GPT-4, including some that enable GPT to [search live websites](#) or newly imported datasets—precisely the kind of chaining of systems that enabled [another tester](#) to generate new chemical compounds online. The OpenAI researchers who ran the proliferation tests were not available for comment at press time.

Ian Stewart, executive director of the Washington Office of the James Martin Center for Nonproliferation Studies, said connecting ChatGPT to the Internet "could result in new challenges, such as live shopping lists for weapons, being created."

And what if the base version of GPT-4, without the safety limitations and human feedback directing it toward less risky responses, is ever made public (as occurred with the [leak of Meta's LLM](#) in February)?

"Then all bets are off," Burden said. "Because you can then ... fine-tune on more novel recipes, more chemistry knowledge, and so on, or more novel social aspects as well—more information about, say, a particular target and their schedule could be used to find vulnerability. If you have enough resources to pump into fine-tuning a model like this ... then you might have more opportunities to do harm."

All the same, Burden sees the GPT-4 testing that has already been done and the publication of the system card as a positive sign of how seriously OpenAI takes these issues. "It was quite novel for the system card to be so extensive as it is. They're hitting on a lot of areas in general that aren't usually given this much attention for a model like this." While policy papers have been written about these risks as a future threat, Burden said, "I don't think I've seen any examples of concrete systems getting actual paragraphs dedicated ... about, 'We tried this; here's what it could do, here are, at a very high level, the ways in which this could be bad.'"

Even with good intentions, though, Burden said that [internal testing](#) can produce pressure on organizations to "shove things under the rug." Both Burden and Stewart expressed concern that even if OpenAI acts responsibly, there are dozens of other projects underway that may not. "My bigger concern right now is that other LLMs will come along that don't have in place the safeguards OpenAI is putting in place," Stewart said.

Many researchers also feel that the positive applications of large language models, including for dual-use technologies, still justifies work on their development. For example, Stewart envisions potential uses for nuclear safety monitoring. There are already other AI approaches to this, Stewart said, but LLMs might be better, and he hopes others in the nonproliferation field will engage with the emerging technology too. "We need to have a good understanding of these tools to understand how they might be used and misused," he said.

Kahn sees OpenAI's work with researchers and policy experts around proliferation of weapons as a part of that engagement. She thinks the GPT-4 testing was worthwhile, but not as much more than an exploratory exercise. "Regardless of the outcome, I think it was important to start having those



conversations and having the policymakers and the technologists interacting, and that is why I was excited to participate,” she said. “I’m always telling people, ‘We’re not at [Terminator](#). We’re not anywhere close yet. It’s okay.’”

Burden, [one of the signers](#) of the open letter calling for a moratorium (Rachel Bronson, the *Bulletin*’s President and CEO, also signed the letter), has a less sanguine view, but agrees on the importance of bringing experts into the conversation. “If you’re going to release something like this out to people in the wild,” Burden said, “it makes sense to at least be concerned about the very different types of harms that could be done. Right?”

Thomas Gaulkin is the multimedia editor of the Bulletin of the Atomic Scientists. Before joining the Bulletin in 2018, he spent the previous decade working in communications at the University of Chicago, first with the centers for International Studies and International Social Science Research, and later as Director of News and Online Content for the Division of the Social Sciences. From 1999-2002 and again in 2006 Gaulkin produced *Worldview*, Chicago Public Radio’s daily global affairs program.

Pentagon to Use Autonomous Drones for Remote CBRN Detection

Source: <https://www.unmannedsystemstechnology.com/2023/02/pentagon-to-use-autonomous-drones-for-remote-cbrn-detection/>

Feb 2023 – The US Department of Defense has awarded Teledyne FLIR Defense a contract to further expand the capabilities of its R80D SkyRaider UAS to autonomously perform Chemical, Biological, Radiological and Nuclear (CBRN) reconnaissance missions. Under the \$13.3 million contract, Teledyne FLIR Defense will integrate flight control software that enables the SkyRaider UAS to autonomously fly CBRN missions currently performed by soldiers hand-carrying detection sensors into hazardous areas. The company believes blending the new technology with SkyRaider’s existing capabilities will allow soldiers to complete these missions without directly controlling the drone – and without exposing themselves to toxic substances.

Teledyne FLIR will also design and build prototype chemical and radiological sensor payloads for the R80D SkyRaider, as well as integrate existing detectors in the US Army’s inventory. This effort builds on three years of investment by several joint program offices to develop new and improved UAS capabilities for CBRN missions.



Both the autonomous SkyRaider and the new sensor payloads will be designed to operate with the command and control user interface for the US Army’s Nuclear, Biological and Chemical Reconnaissance Vehicle (NBCRV) Stryker platform, for which Teledyne FLIR Defense is the prime systems integrator.

For the base contract, Teledyne FLIR will deliver four SkyRaiders and six of each sensor payload, with options to support training, documentation, plus the delivery of additional UAS and payloads.



The award was made through the Joint Program Executive Office for Chemical, Biological, Radiological, and Nuclear Defense; Joint Product Manager for Reconnaissance and Platform Integration (JPdM RPI); and the Chemical, Biological, Radiological, and Nuclear Sensor Integration on Robotics Platforms Program Office (CSIRP). Initial deliveries are scheduled for fall 2023 and the contract period of performance is 33 months, if all options are exercised.

“For many good reasons, militaries are shifting their CBRN defense strategy from manned to unmanned platforms,” said Dr. David Cullin, vice president of technology and product management at Teledyne FLIR Defense. “Employing unmanned air and ground assets to assess risks from weapons of mass destruction is an increasingly sought-after capability. We’ll continue our customers’ important work to enhance situational awareness for mounted and dismounted operations, enabling greater maneuverability on future CBRN-contested battlefields.

“This project also complements our existing portfolio of CBRN sensing drone payloads – the MUVE C360, MUVE B330, and MUVE R430 – all of which allow users to remotely detect and identify a broad spectrum of potentially lethal threats,” Cullin concluded.

Application of miniaturized sensors to Unmanned Aerial Vehicles, a new pathway for the survey of critical areas

By D. Di Giovanni, F. Fumian and A. Malizia

Journal of Instrumentation, Volume 14, March 2019 | 5th International Conference Frontiers in Diagnostics Technologies (ICFDT)

Source: <https://iopscience.iop.org/article/10.1088/1748-0221/14/03/C03006>

During the latest decades, an increasing of threats associated to Chemical, Biological, Radiological and Nuclear events (CBRNe) took place. For what regards break-out of chemical and radiological compounds, several episodes have occurred, such as unwanted industrial leakage, intentional use of chemical weapons by non-state actors or smuggling of nuclear material, that, by materializing a global threat, have conducted to casualties the actors involved, inter alia fire brigades and military first responders. Concerning the equipment provided to these operators, huge progress has been done in portable detectors, now able to employ numerous different working principles and technologies. Nonetheless, especially during the survey phase after a CBRN release, the operators enter a potentially contaminated area without knowing type and amount of the contamination, running the risk of losses during the reconnaissance. On the other hand, nowadays we are witnessing a worldwide spread development of Unmanned Aerial Vehicles (UAV), with countless uses in different fields. They have founded fruitful implementation across civil and military ground in aerial photography, express shipping, gathering information during disaster management, thermal sensor drones for search and rescue operations, geographic mapping of inaccessible locations, severe weather forecasting. What if we could send one or more of these flying platforms equipped with CBRN sensors, geo-localized, able to collect samples and to detect in real time contamination. Subsequently, once the CBRN incident occurrence is confirmed, after the analysis of collected samples is likely to determine the chemical compound or the radiation emitter involved and the level of contamination. If all this is made feasible, we will be able to minimize or completely avoid the exposure of personnel, moreover it will be determined the exact position of the hotspot and better supported the choice of personal protective equipment to be used to enter in the hazard area. Finally, time will be saved by an early UAV survey, while waiting to obtain the safety permissions for entry in the area.

It has been announced that chemical weapons will soon be destroyed

Source: <https://www.electriccitymagazine.ca/it-has-been-announced-that-chemical-weapons-will-soon-be-destroyed/>



May 03 – The Organization for the Prohibition of Chemical Weapons (OPCW) said on Wednesday that the process of destroying tens of thousands of tonnes of declared chemical weapons around the world could be completed “within weeks”. During a presentation of a new technology center near its headquarters in The Hague, Netherlands, the OPCW pointed to new threats posed by artificial intelligence in the fight against chemical weapons. “Over 70,000 tons of the world’s most dangerous poisons have been destroyed under the supervision of the OPCW,” its director, Fernando Arias, told reporters. [A small remaining stockpile of chemical weapons in the United States](#) It will be cleared “in a few weeks”, he added.

Since the Chemical Weapons Convention, a treaty banning the use of chemical weapons implemented in 1997, the OPCW has destroyed 72,118 tons, or 99%, of stockpiles declared by countries around the world. Approximately 127 tons of weapons remain at two facilities located in Colorado and Kentucky, the OPCW told AFP. After 26 years, this is a great achievement for the organization, he said.



Abandoned cargo

But he warns that the planet still holds thousands of chemical weapons, including, for example, remnants of Japan's occupation of China before World War II. Pre-World War I chemical weapons are still a very real danger today. "Each day four chemical weapons remains are still being discovered," said the 2013 Nobel Peace Prize laureate at the OPCW.

Syrian President Bashar al-Assad's regime agreed to join the organization and give up all chemical weapons in 2013 following a sarin nerve gas attack in the Damascus suburb of Ghouta that killed 1,400 people. But the Syrian regime has since been repeatedly accused of chemical weapons attacks. Speaking at the OPCW's new premises in Nootdorp, Fernando Arias said the organization's investigators had "learned a lot in Syria".

At a cost of €34 million, the new centre, which is due to be officially opened next week, replaces an older, smaller and outdated facility in The Hague. It houses a laboratory, storage space for expensive equipment used by investigators, and a training facility to deal with threats posed by new chemical weapons.



"New Poisons"

"With **artificial intelligence**, new poisons are being produced and it's much easier now than ever before," Mr Arias warned. According to the OPCW, radical Islamist groups are developing chemical weapons production capabilities, particularly in Africa.

Separately, Russia's aggression against Ukraine has increased the threat of using weapons of mass destruction, including chemical weapons, the OPCW chief said in November. Threats and accusations of the possible use of nuclear, chemical and biological weapons have been exchanged since the start of the war in Ukraine, but without any evidence that they have been used.

Russia is a member of the OPCW and has said it does not have military chemical weapons, but the country is facing pressure for greater transparency over its alleged use of toxic weapons. In 2020, [Kremlin dissident Alexei Navalny is now in jail](#) A victim of severe poisoning in Siberia, for which he blamed the Russian authorities. [In 2018, former KGB agent Sergei Skripal was poisoned with Novichok](#). UK Moscow has always denied any involvement in the two incidents.

Why Manchineel Might Be Earth's Most Dangerous Tree

Source: <https://www.treehugger.com/why-manchineel-might-be-earths-most-dangerous-tree-4868796>

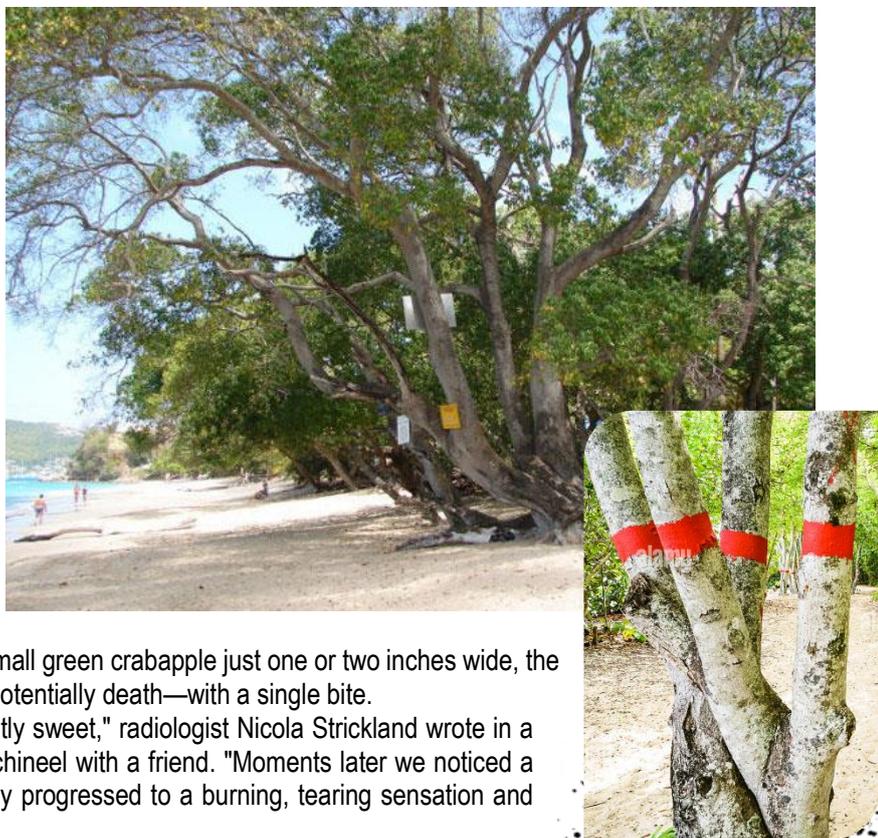
The manchineel tree (*Hippomane mancinella*) may be endangered, but so is anyone who messes with it. That's because this rare tropical plant, which offers deceptively sweet fruit, is one of the most [poisonous trees](#) on Earth.

Manchineels are notorious in their native habitats, the sandy soils and mangroves of South Florida, the Caribbean, Central America, and northern South America. Many are even labeled with warning signs. According to [researchers](#), notorious colonizer Christopher Columbus is said to have called the tree's fruit "manzanilla de la muerte" or "the little apple of death." But aside from poisoning the occasional conquistador, tourist, and literary character, manchineel is relatively obscure considering it holds the Guinness World Record for "most dangerous tree."

Which Part Is Most Toxic?

The fruits are the most obvious threat. Resembling a small green crabapple just one or two inches wide, the sweet-smelling fruits can cause hours of agony—and potentially death—with a single bite.

"I rashly took a bite from this fruit and found it pleasantly sweet," radiologist Nicola Strickland wrote in a 2000 [British Medical Journal article](#) about eating manchineel with a friend. "Moments later we noticed a strange peppery feeling in our mouths, which gradually progressed to a burning, tearing sensation and





tightness of the throat. The symptoms worsened over a couple of hours until we could barely swallow solid food because of the excruciating pain and the feeling of a huge obstructing pharyngeal lump."

Poison apples are just the beginning, though. Every part of a manchineel is toxic, and according to the Florida Institute of Food and Agricultural Sciences, "interaction with and ingestion of any part of this tree may be lethal." That includes bark, leaves, and the milky sap, one drop of which can scorch the skin of shade-seeking beach-goers. Even without touching the tree itself, people (and car paint) have been burned by the thick, caustic sap as rain washes it off branches overhead.²

[NPR](#) reports that "standing under the tree during a rainstorm can cause excruciating pain and blisters." and "even burning the wood releases the toxins, which can cause blindness for those standing too close to the smoke."

Plant toxins typically evolve for defense, but it's not clear why manchineel went to such extremes. That its coastal locale allows its seeds to travel by sea—sometimes across the Gulf of Mexico—rather than by animals probably had something to do with it.³



Pains and Effects

The tree contains a cocktail of toxins, including hippomanin A and B as well as some yet to be identified. A few act instantly, according to "Poisonous Plants and Animals of Florida and the Caribbean" by David Nellis, while others take their time. Symptoms from contact with sap range from a rash and headache to acute dermatitis, severe breathing problems, and "temporary painful blindness," Nellis writes. Burning or chopping the wood isn't advised, either because its smoke and sawdust burn skin, eyes, and lungs.⁴





Eating the fruit usually causes abdominal pain, vomiting, bleeding and digestive tract damage, Nellis adds. Death is widely considered a risk, but mortality data for ingesting the manchineel fruit—informally known as a "beach apple"—are scarce. Aside from the short-term danger, some manchineel compounds may be co-carcinogenic, promoting the growth of benign and malignant tumors.⁵

The most famous victim of manchineel is probably conquistador Juan Ponce de Leon, who led the first European expedition into Florida in 1513. He returned to colonize the peninsula eight years later, but his invasion met resistance from Calusa fighters. Some native Caribbean people used manchineel sap to make poison arrows, and one of these sap-tipped arrows reportedly struck Ponce de Leon's thigh during the 1521 battle. He fled with his troops to Cuba, where he died of his wounds.⁶

Practical Uses of Manchineel

Manchineel also has benefits to humans. Normally a hefty shrub, it can grow up to 50 feet tall, producing toxic timber that has long tempted Caribbean carpenters. And despite the danger, people have used manchineel to make furniture for centuries, carefully cutting the wood and then drying it in the sun to neutralize its poisonous sap. Native people even used manchineel as medicine, including the gum for edema and its dried fruits as a diuretic.

Although manchineel sap is poisonous to birds and many other animals, there are some creatures it doesn't seem to bother. The *garrobo* or striped iguana of Central and South America, for example, is known to eat manchineel fruit and sometimes even lives among the tree's limbs, according to IFAS.

People tend to leave manchineel alone, both for obvious reasons and because even this poisonous tree provides ecosystem services. It's a natural windbreak and fights beach erosion, for instance, a useful service in the face of rising sea levels and [bigger Atlantic storms](#). And since biotoxins can inspire beneficial scientific breakthroughs like safer pesticides from scorpion venom or pain medicine from cone snails, it's probably worth keeping manchineel around.

According to the [University of Florida](#), Indigenous people in Florida and the Caribbean used the tree to kill their enemies by dipping their arrowheads in the poisonous sap or tying people to the tree to guarantee a torturous demise.



Protecting the Manchineel Tree

Toxicity became a liability for manchineels in Florida, where eradication efforts and habitat loss pushed it onto the endangered species list. The good news? Although it's less famous than toxic plants like poison ivy or hemlock, manchineel at least has relative notoriety among endangered plants, most of which are publicly unknown. Local respect for its risks, as well as benefits, may give it an edge over endangered plants with less star power and firepower.

The IUCN classes the manchineel as a species of least concern, calling populations stable. It was last assessed in 2018.7

Frequently Asked Questions

- What should you do if you come in contact with a manchineel tree?
If you come into contact with any poisonous plant, the Centers for Disease Control recommends rinsing with a good degreasing soap or, better yet, rubbing alcohol. Scrub under your nails if necessary. Then, relieve itching and irritation with wet compresses, oatmeal baths, and an antihistamine. If it's severe, go to the emergency room.⁸
- What is the manchineel tree good for?
The manchineel tree provides food and habitat for some species that are immune to its toxicity. It also combats beach erosion and serves as a natural windbreak, which is handy during tropical storms.
- Do manchineel trees poison animals?
Manchineel trees are poisonous to birds but not Central and South America's striped iguana, which actually eats and lives among these trees.

Long Beach area hospitals participate in disaster drill

Source: <https://www.presstelegram.com/2023/05/11/long-beach-area-hospitals-participate-in-disaster-drill/>



May 11 – Healthcare personnel from eight regional hospitals ran through a mock disaster drill in Long Beach on Wednesday, May 10 — in preparation for a possible chemical warfare attack or other emergencies.

The purpose of the drill, which took place MemorialCare Long Beach Medical Center's parking lot, was for hospitals and public safety officials to train and practice decontamination procedures in case Los Angeles County were ever hit with a chemical attack, according to a press release. Public safety officials were there too, but they just observed the drill.

It also gave health care officials the chance to evaluate the tools and supplies that hospitals have to quickly and safely care for patients.

The Wednesday morning drill was conducted by the [Disaster Resource Center](#), which promotes and plans collaboration with Los Angeles County's various government agencies, hospitals and other health care entities.

The set up included stations for hospital teams to put on their gear and two decontamination shower tents.

"These (tents) are set up outside the emergency department and then we run patients through, making sure that they're clean before they come into the hospital," said Steven Shrubb, emergency management coordinator for Long Beach Medical Center and Miller Children's & Women's Hospital Long Beach, both run by MemorialCare.

"We make sure that they're protected," he said, "we're protected and that anyone else in the hospital is protected."

Eight regional hospitals participated in the mock disaster drills in preparation for a possible chemical warfare attack or other emergency disasters at MemorialCare Long Beach Medical Center on Wednesday, May 10. (Photo by Christina Merino, Press-Telegram/SCNG)

The purpose of the DCR is to take an "all hazards" approach to disaster preparedness, with an emphasis on terrorism preparedness, including bioterrorism equipment and training. There are 13 other DCRs in Los Angeles County.

Drills are conducted annually at the different disaster program hospital campuses. This was the first time Long Beach MemorialCare hospitals had hosted the program since 2016, officials said.

More than 50 team members from regional hospitals – including Lakewood Regional Medical Center and Dignity Health–St. Mary Medical Center – put on hazmat suits and carried simulated patient mannequins through the procedures.

"We go over this in training but since these cases don't happen very frequently, it's important to go over drills," said Dr. Ian Buchanan, an emergency medicine physician at Long Beach Medical Center.

"We don't use this equipment very often so we need to know that this equipment is ready," Buchanan said. "We don't want staff to have any fear that this won't work or if they won't know how to use it properly and that they're safety could be at risk."



ICI C²BRNE DIARY – May 2023

Shrubb was the director of the program for the day, so he went through each step of the decontamination procedures with the staff: Getting the clothes off the mannequin patients, walking, in pairs, into the tent with them while wearing hazmat suits soaking, and scrubbing the patients for two-to-four minutes with soap and water. Once the patients were out, the personnel team members then decontaminated themselves.



Staff from College Medical Center in Long Beach were the first to participate in the mock disaster drills in preparation for a possible chemical warfare attack or other emergency disasters at MemorialCare Long Beach Medical Center on Wednesday, May 10. (Photo by Christina Merino, Press-Telegram/SCNG)

Patients were then reevaluated, with staff determining who needed to be taken care of first according to their illnesses or injuries, Shrubb said. Medical personnel also received more training and information from the Long Beach Fire Department on what first responders do at an emergency site, such as a car crash or earthquake.

Although the drills were for hospital staff, officials also encourage the community to do their part to prepare for an emergency or disaster. MemorialCare has emergency preparedness topics and lists items for community members to have ready, such as first aid kits, food and water, and other essential supplies, at [memorialcare.org/emergencypreparedness](https://www.memorialcare.org/emergencypreparedness).

“What we do here today and the training is for us to be better prepared for the community,” Shrubb said. “Just as important as it is for us to be prepared, it’s as important for the community to be prepared with us.”

Higher mortality rate for Porton Down veterans involved in chemical weapons research

Source: <https://www.eurekaalert.org/news-releases/989013>

Military veterans involved in chemical warfare agent research at Porton Down faced a 6% higher mortality rate than similar veterans who were not involved. The research from the King’s Centre for Military Health Research (KCMHR) at King’s College London, in partnership with Lancaster University, is published in the International Journal of Epidemiology. Researchers compared the medical records of 16,721 male UK



veterans who participated in the 'Service Volunteer Programme' from 1941-1989, comparing them with 16,228 non-Porton Down veterans, placing a particular focus on the most common causes of death and types of cancer.

They found that these military veterans had higher rates of mortality from diseases of the genitourinary systems (for example, kidney disease), as well as deaths attributable to alcohol, but found little evidence of an association between attendance at Porton Down and higher rates of overall cancer incidence.

Porton Down first opened during World War I in response to the use of chemical weapons. Since 1916, over 20,000 service personnel have exposed to low doses of chemical warfare agents and their antidotes, some of which are known to be carcinogenic. This has raised questions over the long-term impacts on the health of veterans attached to the Program.

While there was only a small increased risk overall, the researchers did find that veterans who took part in the Porton Down Volunteer Program between 1960-64 were at significantly greater risk of dying from a range of causes including cancerous tumours, diseases within the circulatory system, and smoking related deaths.

The researchers suggest that health providers need to be aware of the specific health issues connected to military veterans, and the wider population, who may have been exposed to chemical warfare agents.

Dr Tom Keegan, one of the study's authors and a Senior Lecturer in Epidemiology from Lancaster Medical School said: "Military personnel were exposed to over four hundred different types of chemicals over the course of the programme, so we now want to investigate whether particular chemicals are associated with increased risk of poorer health."

Dr Gemma Archer, from KCMHR, the study's first author said: "Veterans of the Porton Down Service Volunteer Program were often exposed to small doses of chemical agents designed to be used in war. Our study followed the health of veterans for over fifty years, and we are thankful that it indicates that the large majority of veterans were unlikely to have come to harm. A small number of veterans did appear to have higher rates of death and a variety of other illnesses, and it is something that healthcare professionals need to be mindful of when treating victims of chemical exposure."

Professor Nicola Fear, co-director of KCMHR and the study's senior author said: "There has, for some time, been a question mark hanging over the volunteers who contributed to the research of Porton Down. While it is reassuring that our study found no evidence of increased risk of cancer in veterans who attended Porton Down, the 6% higher rate of all-cause mortality compared to veterans who didn't attend Porton Down is not something that should be overlooked".

OPCW Centre for Chemistry and Technology officially inaugurated

Source: <https://www.opcw.org/media-centre/featured-topics/chemtech-centre>

May 12 – In the presence of His Majesty King Willem-Alexander of the Netherlands the new Centre for Chemistry and Technology (ChemTech Centre) of the Organisation for Prohibition of Chemical Weapons (OPCW) was inaugurated in Pijnacker-Nootdorp, Netherlands today.

During the ceremony, His Majesty the King unveiled a plaque to mark the official inauguration of the Centre and was given a guided tour of the facilities.

"The ChemTech Centre is a success of multilateral diplomacy and a tangible symbol of what the international community can achieve together for the benefit of global peace and security. It is a privilege and honour that the Centre is being inaugurated in the presence of His Majesty King Willem-Alexander of the Netherlands," the Director-General said in his opening remarks. "I thank the 57 donor countries, and other donors, including the European Union and the members of the "Global Partnership Against the Spread of Weapons of Mass Destruction" for their strong political and financial support to make this Centre a reality. We will leave a special legacy to future generations in the common interest of peace and security."



ICI C²BRNE DIARY – May 2023

Speaking on behalf of the OPCW's host country, H.E. Mr Paul Huijts, Secretary-General of the Ministry of Foreign Affairs of the Kingdom of the Netherlands, stated: "It is a great honour to participate in the inauguration ceremony of the ChemTech Centre. As Host Nation to and Member State of the OPCW, the Netherlands is strongly committed to upholding the global norm against the use of chemical weapons. It is our firm belief that all Member States will benefit from the new and exciting opportunities the ChemTech Centre has to offer and that it will greatly contribute to further bolster its international role, particularly in disarmament, verification and cooperation."



The ChemTech Centre is an important upgrade to the OPCW's capabilities to adapt to the evolving global security landscape and assisting Member States in upholding the global norm against chemical weapons. It will ensure that the Organisation remains able to address threats and opportunities arising from rapid progress in science and technology.

The Centre also provides a platform to better coordinate efforts between scientists, academia, civil society, industry, and relevant international organisations. Activities at the Centre underpin the role of the Organisation as the world's leading repository of chemical weapons related expertise and knowledge, addressing chemical threats worldwide.

The ChemTech Centre is located in Pijnacker-Nootdorp, 12 km from OPCW Headquarters in The Hague. The floor size of the facility is 5,700m². It houses the OPCW Laboratory, a Technology and Training Hub, an instruction space, and advanced training facilities for OPCW staff and capacity building activities for experts from Member States



“As mayor I am very proud that the OPCW – an internationally important and prestigious organisation – chose the municipality of Pijnacker-Nootdorp as location for their ChemTech Centre,” said H.E. Mr Björn Lugthart, Mayor of Pijnacker-Nootdorp. The ceremony was attended by high-level dignitaries, including H.E. Ms Bonnie Jenkins, Under Secretary of State for Arms Control and International Security of the United States of America; H.E. Ms Baroness Goldie, Minister of State at the Ministry of Defence of the United Kingdom of Great Britain and Northern Ireland; and H.E. Ms Yuumi Yoshikawa, Parliamentary Vice Minister for Foreign Affairs of Japan. Ambassadors and other high-level officials were also present at the event.

Background

The Centre is a major investment funded entirely through voluntary contributions from 57 countries, the European Union and other donors totalling more than €34M. Construction of the Centre began in June 2021 and the facility was officially accepted by the OPCW on 27 January 2023.

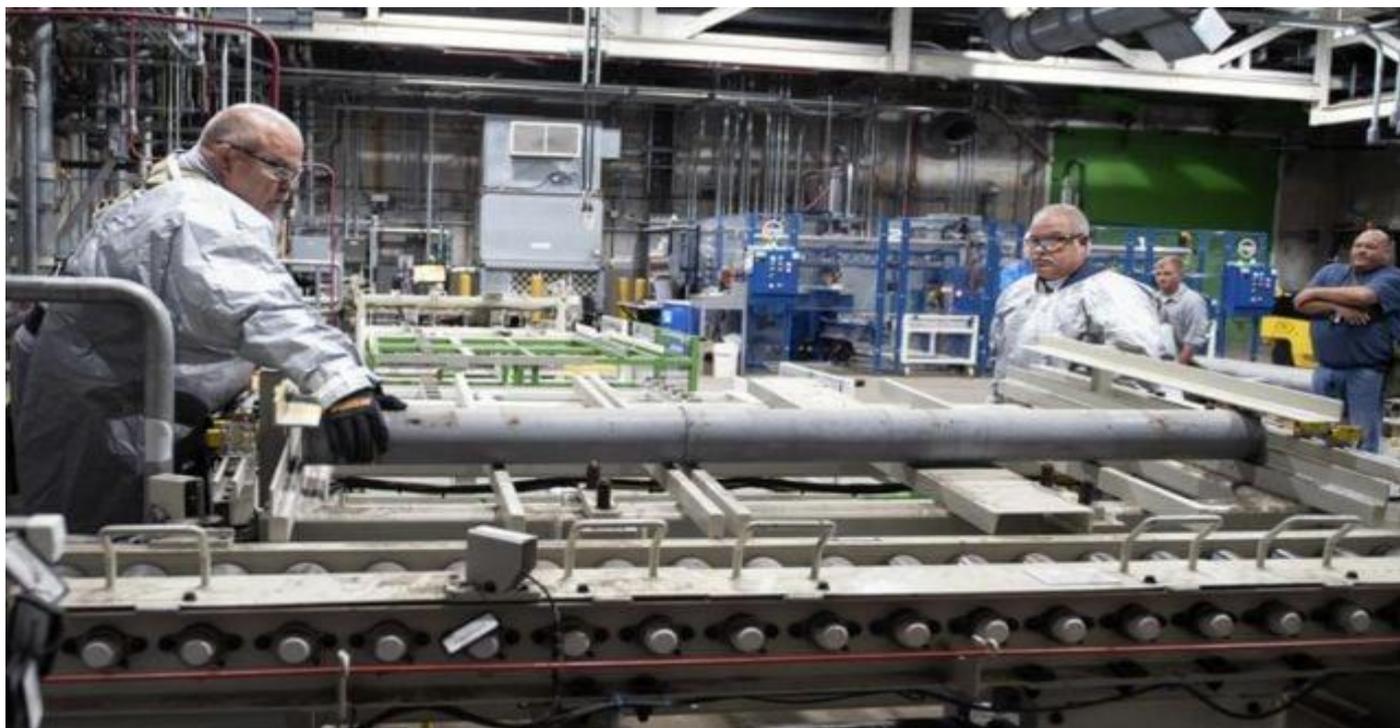
The ChemTech Centre will enhance the OPCW’s ability to conduct chemical research and analysis. This will significantly reinforce its verification regime and inspection capabilities of chemical industries around the world. In addition, an increasing number of capacity development activities will be delivered through the Centre, including chemical emergency response trainings and analytical skills development courses for experts from Member States.

As the implementing body for the Chemical Weapons Convention, the OPCW, with its 193 Member States, oversees the global endeavour to permanently eliminate chemical weapons. Since the Convention’s entry into force in 1997, it is the most successful disarmament treaty eliminating an entire class of weapons of mass destruction.

Over 99% of all declared chemical weapon stockpiles have been destroyed under OPCW verification. For its extensive efforts in eliminating chemical weapons, the OPCW received the 2013 Nobel Peace Prize.

US President Joe Biden vows to destroy chemical weapons by 2023

Source: <https://www.firstpost.com/world/us-president-joe-biden-vows-to-destroy-chemical-weapons-by-2023-12591112.html>



May 13 – Ahead of the scheduled International Arms Control Conference in The Hague next week, US President Joe Biden announced to destroy its last remaining chemical weapons by the fall of 2023.

“We are on track to complete the destruction of our chemical weapons stockpile by this fall – a disarmament milestone that upholds the highest standards of transparency and public safety,” Biden said in a statement posted on the White House website. In a statement issued by the White House, it said that next week, the United States and



fellow state parties will gather for the fifth review conference of the chemical weapons convention to review our progress and determine what more we must do to rid the world of chemical weapons.

“As we work together toward our shared goal, the United States is leading by example. We are on track to complete the destruction of our chemical weapons stockpile by this fall—a disarmament milestone that upholds the highest standards of transparency and public safety,” it said.

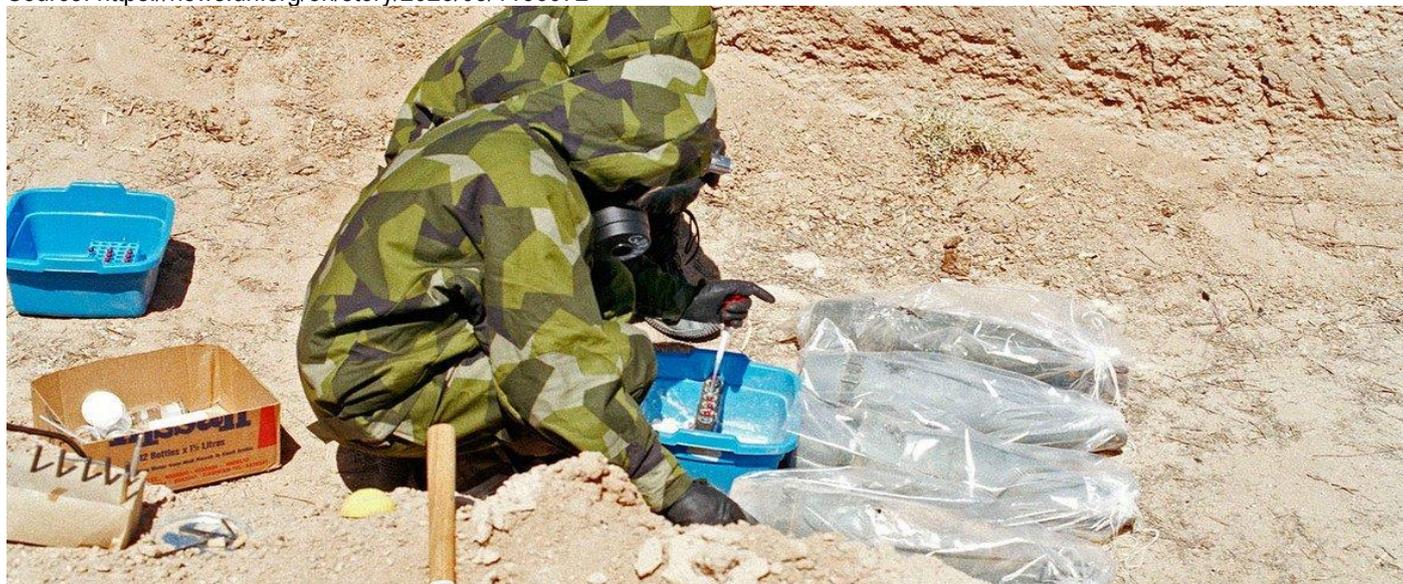
“The US will continue to stand with the Organization for the Prohibition of Chemical Weapons to prevent the stockpiling, production, and use of chemical weapons around the world. We should all work together to encourage the remaining nations to join the chemical weapons convention. The use of chemical weapons is never acceptable, and the world can be assured that the United States will not rest in this fight against impunity,” it added.

Signatories to the Chemical Weapons Convention (CWC), which took effect in 1997, committed to disposing of all chemical munition stockpiles. Legally, the US is required to do so by the end of this year. The US pledged to destroy its last remaining chemical weapons stored in depots in Colorado and Kentucky by September 30, 2023.

Moscow and Beijing have repeatedly urged Washington to speed up the disposal process. Russia and China released a joint statement last month “insisting that the US, as the only CWC member state that has not completed the destruction of its chemical weapons stockpiles.

Guterres: Eliminate ‘weapons of terror’ to avert future chemical warfare

Source: <https://news.un.org/en/story/2023/05/1136672>



UN Special Commission (UNSCOM) inspectors take mustard agent samples from 155-mm mustard agent artillery projectiles, which have been wrapped in plastic to minimize contamination, in Iraq in 1991 – UN Photo/Shankar Kunhambu

May 15 – The world must make every effort to eliminate chemical weapons, the UN chief said on Monday, raising grave concerns about their continued use. “We cannot go backwards,” UN [Secretary-General António Guterres](#) said in a [video message](#) addressing the fifth Special Session of the States parties to review the operation of the [Chemical Weapons Convention](#).

‘Senseless weapons of terror’

“The use of chemical weapons has persisted; each use **threatens to reverse our hard-won gains**,” he said. “We must make every effort to eliminate these senseless weapons of terror.” In the name of the victims of these attacks, and as a **deterrent to any State or other actors who might use chemical weapons in the future**, he said those responsible for any use must be identified and held accountable for their crimes.

‘No place in our world’

Chemical weapons “have no place in our world” and their use anywhere, by anyone, for any reason is unacceptable, he said, underlining the importance of the Chemical Weapons Convention. Entering into



force in 1997, it aims to eliminate an entire category of weapons of mass destruction by prohibiting the development, production, acquisition, stockpiling, retention, transfer or use of chemical weapons, by its 193 States parties. In turn, signatories must take the necessary steps to enforce that prohibition and ensure the safe destruction of existing stockpiles.

Around 98 per cent of the global population lives under the Convention's protection, and 99 per cent of declared stockpiles have been verifiably destroyed, said the Organisation for the Prohibition of Chemical Weapons ([OPCW](#)), the Convention's implementing body.

'Milestone of disarmament'

"This milestone of disarmament was the result of the world standing as one and speaking as one to express humanity's horror at the use of chemical weapons," he said. "Since then, the Convention has helped create a safer world for all of us."

"Let's revive the spirit that led to the Convention's creation three decades ago," he said, urging States to renew and strengthen their commitment to the Chemical Weapons Convention. "Let's rally the world behind our goal of a safer, more secure world for all: a world without chemical weapons."

EDITOR'S COMMENT: Weapons of Terror = Chemical Weapons. Does this mean that all other weapons are offering joy or pleasure? Why do people in top positions use so pompous expressions to describe the self-evident?

Chemical, biological, radiological, and nuclear preparedness of public hospitals in Riyadh, KSA

By Ahmed Ali Alahmari (Saudi Arabia Ministry of Health) and Anas A Khan (King Saud University)

Source: https://www.researchgate.net/publication/346882092_Chemical_biological_radiological_and_nuclear_preparedness_of_public_hospitals_in_Riyadh

Objectives Chemical, biological, radiological, and nuclear (CBRN) incidents are those that involve chemical or biological warfare agents or toxic radiological or nuclear materials. These agents can cause disasters intentionally or accidentally. Hospitals play a crucial role in handling CBRN disasters. This study aimed to assess the CBRN preparedness of government hospitals in Riyadh.

Methods A descriptive cross-sectional study was conducted across government hospitals in Riyadh, all government hospitals in Riyadh with more than 100 inpatient beds and an emergency department met the inclusion criteria. Hospital preparedness was assessed using an adaptation of the CBRNE Plan Checklist. Results were described in frequencies across several domains such as foundational considerations, planning, training and awareness, procedures, and modules for preparing for a biological incident, a chemical incident, and a radiological or nuclear incident.

Results Of the 11 eligible hospitals, 10 participated in the study. Further, CBRN considerations were included in the disaster plans of 7 hospitals. Drills had been conducted in collaboration with local agencies in only 2 hospitals. The staff had been trained to recognize the signs and symptoms of exposure to class (A) biological agents in less than half of the hospitals. A majority of the hospitals had antidotes and prophylactics to manage chemical incidents, but only half of them had radiation detection instruments. Personal protective equipment was available in all hospitals, but rapid access to stockpiles of medications was available in only half of them.

Conclusion Government hospitals in Riyadh (Nov 2020) demonstrated insufficient CBRN preparedness. Therefore, their staff should be trained to manage CBRN emergencies, and local drills should be conducted to improve their preparedness.

Saudi forces seize 1.4 million Captagon pills stashed in shipment of wooden panels

Source: <https://www.thenationalnews.com/gulf-news/2023/05/15/saudi-forces-seize-14-million-captagon-pills-stashed-in-shipment-of-wooden-panels/>

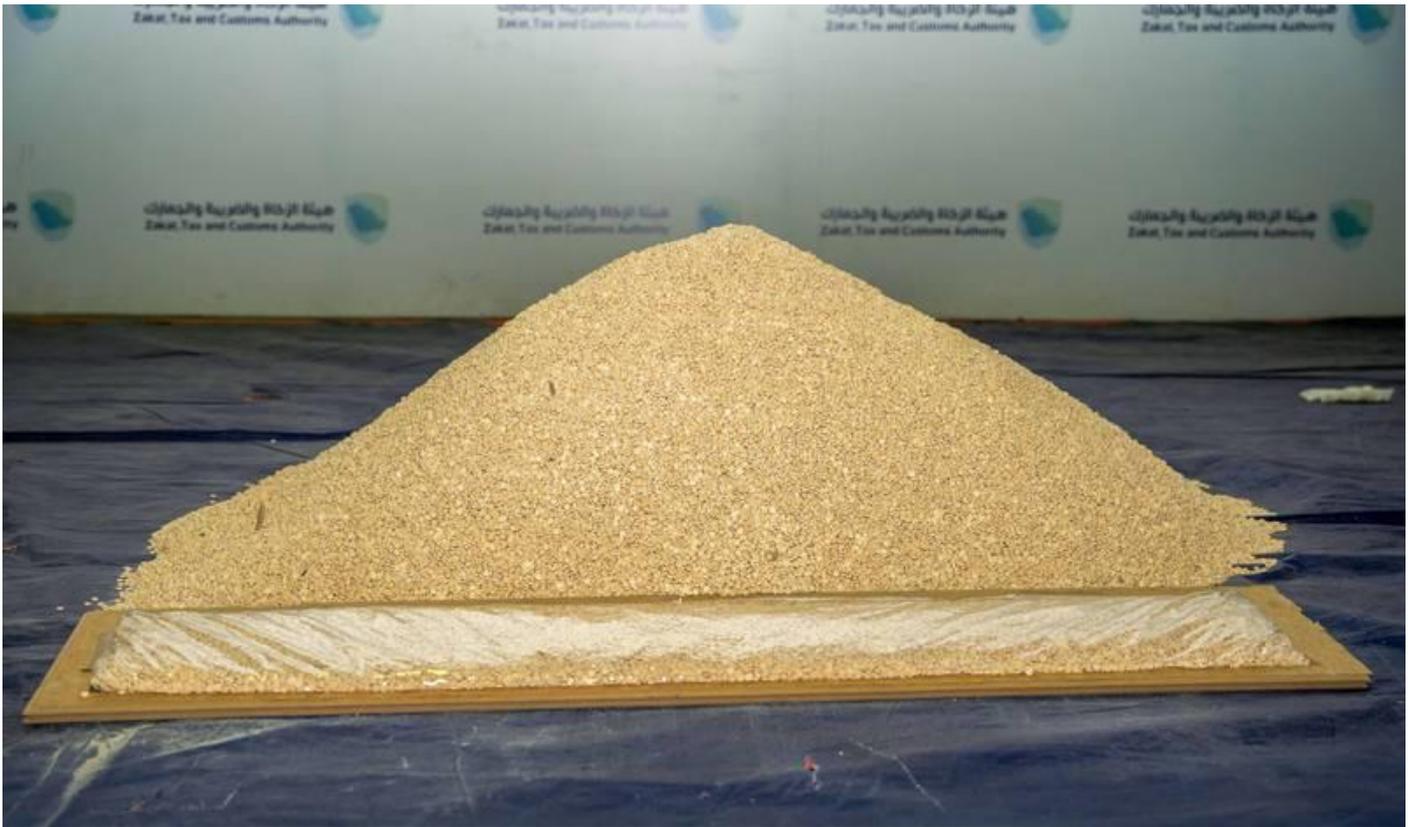
May 15 – Saudi Arabia's security forces in Jeddah seized about 1.4 million [Captagon pills](#), authorities announced on Monday.

A stash of 1,395,930 Captagon pills was found hidden in a shipment of wooden panels.

Saudi authorities made the discovery as the drugs were travelling through Jeddah Islamic Port.

Customs officers have arrested one man suspected of involvement with the shipment.





Saudi Arabia's Zakat, Tax and Customs Authority released a video on social media showing officers [extracting the drugs](#) from wooden panels stored in a lorry.

The agency said it was working with the General Directorate of Drug Control to tighten procedures around the kingdom's imports and exports as well as security.



A Syrian citizen was arrested and referred to prosecutors.

The war on Captagon

Captagon was created in 1961 as an alternative to amphetamine and methamphetamine. It was used to treat attention deficit hyperactivity disorder, and less commonly, depression. However, it never received regulatory approval from the US Food and Drug Administration.

Customs officers encouraged the public to share any evidence of drug use or supply within the kingdom, promising whistleblowers anonymity and rewards. Officials did not disclose the value of the drugs, but in line with global estimates the haul would be expected to be worth millions of dollars.

Greece – Specially trained K-9 units are often used by border forces to intercept shipments.

Captagon is the most in-demand narcotic in the Middle East.

In March, almost five million Captagon pills were seized by Saudi security forces in Riyadh after they were discovered in a shipment of electrical cables.



In 1981, the drug was declared a controlled substance after doctors determined that the drug's addictive properties outweighed its clinical benefits.

By 1986, its manufacture had been outlawed in almost every country, although illegal production continued.

The small, off-white pills have become the Middle East's most popular drug.

Trade in Captagon in the region grew exponentially in 2021 to exceed \$5 billion, posing an increasing health and security risk to the Middle East, a 2022 report said.

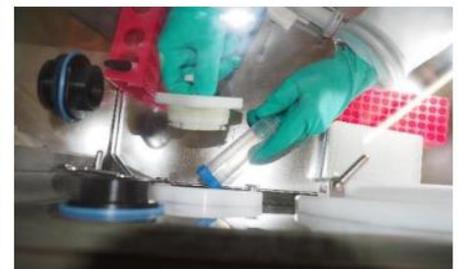
Most of the global Captagon production originates in Syria, where it has become a \$10 billion industry, according to AFP estimates drawn from official data, making the drug the country's biggest export so far.

The synthetic amphetamine has long been associated with the Syrian civil war. Many fighters on all sides are believed to use the drug. It has now become one of the most widely used drugs among young substance abusers in Saudi Arabia and the UAE.



RCK - Rapid Containment Kit NBC

Foldable Negative-pressure Glovebox for Mobile Units



The RCK is a portable, foldable NBC filtrated negative pressure glovebox for safe and secure handling of highly hazardous biological, chemical and radiological samples. The RCK was developed with scientific and military expertise in close cooperation of the Medical B-Recon and Investigation Team of the Bundeswehr Institute of Microbiology and soon has become an important tool for the rapid reaction teams and rapid deployable field laboratories. The kit has been seen in Ebola diagnostics since January 2014 in West Africa and is well received in the medical and scientific community. Clear field of view for fatigue-proof work conditions. Redundant protective systems keep up containment even in critical situations.

Advantages

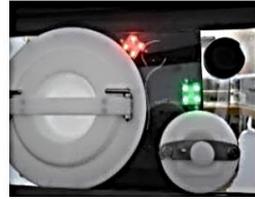
- Rapid deployability
- Transportation mobility
- High safety by handling and transporting of hazmat samples
- Comfortable working conditions



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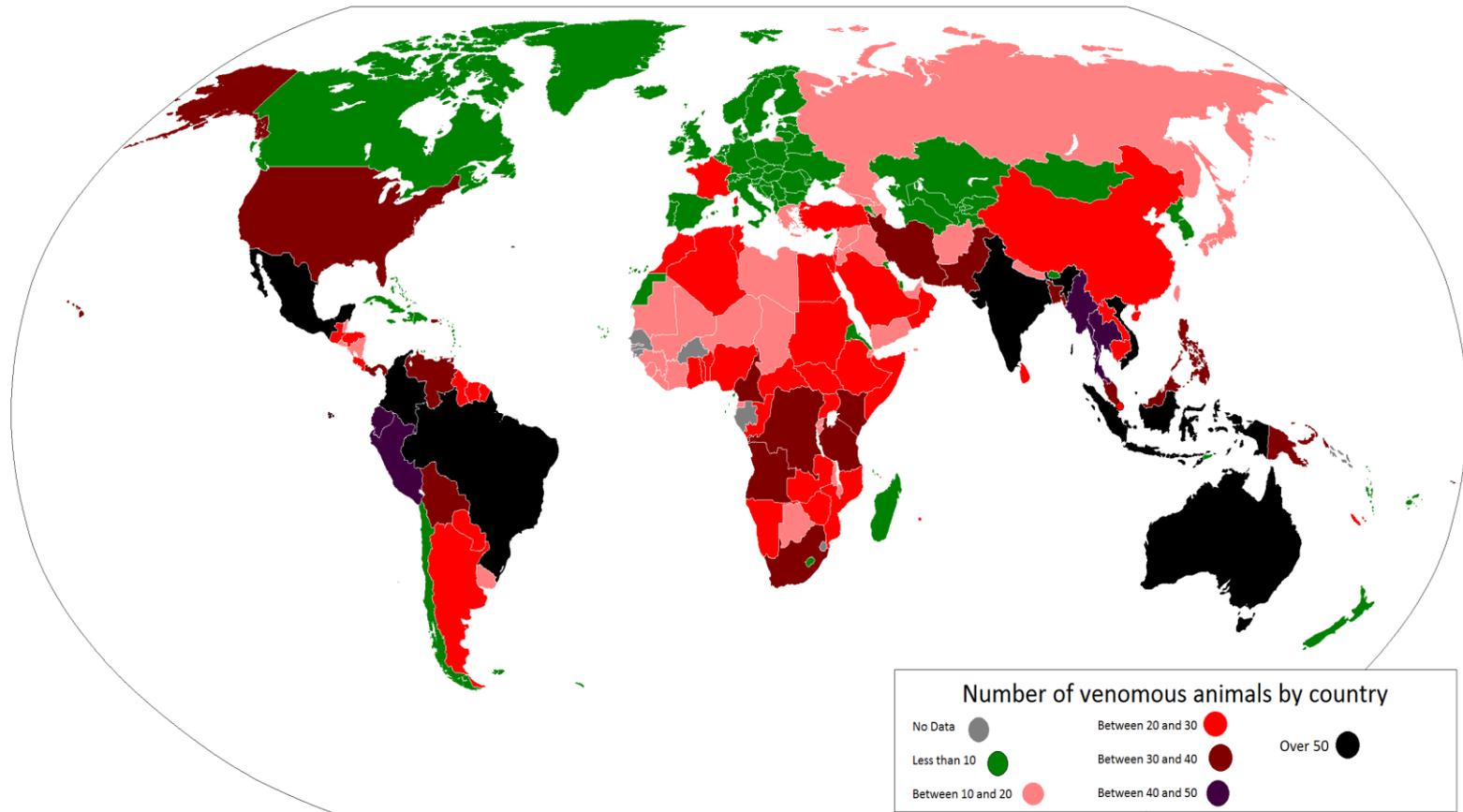
- Proper function in non-standard environments
- Positive and negative pressure
- Packing size allows transportation as aircraft luggage
- All parts are resistance to decontaminants
- Independent power supply ensures 4-14 hours of operation
- Built in lighting
- Filters and blower unit are certified for NBC environments
- Interchangeable gloves according to specific threat levels

Operational Description



The blower unit creates a negative pressure inside RCK, so that potentially contaminated air goes through the NBC Filter. For prevention of direct contact with the sample the RCK is equipped with a interchangeable glove system. Transfer port(s) are used to bring material in and out of the RCK without contamination. The Control Box operates and controls the system, as well as test the Glove Box for leak tightness. If the negative pressure drops under preset value, a warning signal will be activated.

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24 years' salaries
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US Army civilians build mock Weapons of Mass Destruction labs for elimination training

By Walter T. Ham IV

Source: https://www.army.mil/article/266789/us_army_civilians_build_mock_weapons_of_mass_destruction_labs_for_elimination_training



A Chemical Corps Soldier from the 46th Chemical, Biological, Radiological, Nuclear (CBRN) Company (Technical Escort) checks a simulated Weapons of Mass Destruction laboratory on Fort Bliss, Texas. U.S. Army civilians from the Chemical, Biological, Radiological, Nuclear, Explosives (CBRNE) Analytical and Remediation Activity (CARA) build mock Weapons of Mass Destruction labs for elimination training. (Photo Credit: Courtesy photo)

May 17 – U.S. Army civilians build mock chemical and biological laboratories to help Chemical Corps Soldiers to prepare for Weapons of Mass Destruction exploitation and elimination missions around the world.

Army civilians from the Chemical, Biological, Radiological, Nuclear, Explosives (CBRNE) Analytical and Remediation Activity (CARA) leverage their scientific expertise and real-world experience to create realistic training sites for troops at bases across the nation. Headquartered on Aberdeen Proving Ground, Maryland, CARA is a one-of-a-kind deployable activity that supports unified land operations with theater validation analysis of chemical, biological and explosive agents and materials. CARA also provides worldwide response for Recovered Chemical Warfare Material, technical escort of surety and non-surety chemical material and remediation support to combatant commanders.

CARA is part of the 20th Chemical, Biological, Radiological, Nuclear, Explosives (CBRNE) Command, the U.S. military's premier all hazards command. From 19 bases in 16 states, Soldiers and Army civilians take on the world's most dangerous hazards in support of joint, interagency and allied operations.





Soldiers from the 46th Chemical, Biological, Radiological, Nuclear (CBRN) Company (Technical Escort) check a simulated Weapons of Mass Destruction laboratory on Fort Bliss, Texas. U.S. Army civilians from the Chemical, Biological, Radiological, Nuclear, Explosives (CBRNE) Analytical and Remediation Activity (CARA) build mock Weapons of Mass Destruction labs for elimination training. (Photo Credit: Courtesy photo)

In addition to CARA, the 20th CBRNE Command is home to 75 percent of the active-duty U.S. Army's Explosive Ordnance Disposal technicians and Chemical, Biological, Radiological, Nuclear (CBRN) specialists, as well as the 1st Area Medical Laboratory, five WMD Coordination Teams and three Nuclear Disablement Teams.

The CARA Mobile Expeditionary Laboratory (CARA-MEL) organization has built targets and trained Soldiers at locations across the nation, including Aberdeen Proving Ground, Maryland; Fort Polk, Louisiana; Fort Bragg, North Carolina; Fort Stewart, Georgia; Joint Base Lewis-McChord, Washington; Fort Cavazos, Texas; National Training Center at Fort Bliss; Fort Irwin, California; and Umatilla Chemical Depot, Oregon.

The CARA teams have also supported joint and international activities with Kuwaiti, British and German government organizations.

"CARA-MEL tailors targets and training to meet unit needs and requirements from kits consisting of glassware to simulate small-scale, clandestine operations to multi-level, full-scale, mock, production facilities for both chemical and biological agents," said Matthew Kalfoglou, an analytical chemist at CARA.





A native of Richmond, Virginia, Kalfoglou previously served in the U.S. Air Force as a Communications, Navigations and Mission Systems Avionics Technician on the B-52H Stratofortress, where he maintained radios, navigation equipment and electronic mission systems that are required to put bombs on target.

Kalfoglou said the CARA-MEL teams helped prepare Soldiers for the challenges they would face during a mission to eliminate CBRNE threats on the battlefield.

“CARA-MEL assists in exposing Soldiers to realistic scenarios by including a diverse set of laboratory processes and scientific equipment for each target build to address training objectives and emerging threats. By tailoring the target builds, CARA-MEL is able to reinforce foundational skills and enhance the knowledge of the CBRNE Response Teams (CRT), which will create more efficient interactions between the CRT and CARA scientists within a theater deployed environment,” said Kalfoglou.

“Proper sampling and collection techniques lead to a more precise analysis that CARA-MEL can then report to combatant commanders allowing for more informed, real-time, battlefield decisions,” said Kalfoglou, a graduate of Virginia Commonwealth University.

Kevin P. Wioland, a chemist at CARA, said the

CARA-MEL designed the simulated WMD sites to challenge the CBRN Soldiers by using realistic simulants and increasing the complexity of the targets from laboratory scale to large-scale production process.

Wioland added the simulants and positive control samples provide realistic training and helps to instill trust in the analytical instrumentation teams use during target exploitation.

“Additionally, documents related to research and development of ongoing processes, routes of chemical and biological agent synthesis and means of distribution and dissemination are dispersed throughout the targets to simulate information of potential intelligence value,” Wioland, who is from Jackson, New Jersey. “This fundamentally brings about more challenges for the Soldiers in comparison to training on small-scale clandestine target builds.”

Dr. Edward F. Keen III, a microbiologist at CARA, said three chemists and two microbiologists from CARA recently supported the 46th CBRN Company (Technical Escort), 22nd Chemical Battalion, during a CBRNE Response Team certification exercise on Fort Bliss, Texas.

Keen said the CARA-MEL team created two targets at separate locations, including a large-scale chemical agent production facility and a large-scale biological agent production facility.

A native of Olney, Maryland, who has served in a variety of microbiology and countering WMD positions with the U.S. Army and Army Reserve, Keen said the target builds exceeded the expectations of the battalion, company and CRTs in terms of build quality, target scenario development and CARA’s chemical and biological warfare agent subject matter expertise.

Irvine Swahn, an Army chemist from Street, Maryland, said CARA-MEL leverages its expertise to help improve CRBN unit readiness. A seasoned chemist who has inspected facilities in more than 20 different countries, Swahn previously served at the United Nations Special Commission on Iraqi disarmament in Iraq and with The Organisation for the Prohibition of Chemical Weapons in The Netherlands.

“The CARA team is comprised of individuals from various disciplines within the scientific community all with differing backgrounds and vast experience in safe site exploitation, sample collection and handling experience,” said Swahn. “As a result, we are able to leverage each individuals’ strengths to build realistic and accurate chemical and biological agent production targets for training.”





Sam Pannoni, a microbiologist from CARA, said exercises on mock WMD sites are conducted to ensure CBRN Soldiers are prepared to exploit chemical and biological sites on the battlefield. “With CBRN troops expected to perform their mission set during large-scale combat operations, CARA-MEL is pushing to increase the scale, complexity and detail of the training scenarios it provides the troops,” said Pannoni, a native of Babb, Montana. “This includes small clandestine labs to large-scale facilities to state-sponsored factories that provide a realistic exposure to the nuances Soldiers will encounter on a mission.”

In addition to facilitating counter Weapons of Mass Destruction training by constructing targets that simulate chemical and biological agent research and development, production and dissemination, CARA-MEL also provides observer, coach and trainer support during exercises to ensure the teams are correctly identifying, characterizing and sampling targets. Pannoni said this feedback helps to streamline the decision-making process. Impressed by the impact that the Army organization has during missions around the world, Pannoni decided to join CARA in 2022. “What attracted me most to CARA-MEL was the expeditionary element of our mission, which equates to a gritty, boots-on-the-ground approach to problem solving,” said Pannoni.

“This puts our scientists and mobile labs out there in the deployed environment where our advanced capabilities can have the greatest impact, which is exactly where I want to be,” said Pannoni. “I am proud and honored to be a part of a team where my call to serve is as important as the technical expertise I bring to the fight.”

Commander of Army chemical weapons depot suspended

Source: <https://www.militarytimes.com/news/your-army/2023/05/18/commander-of-army-chemical-weapons-depot-suspended/>

May 18 – The commander of the Army’s Pueblo Chemical Depot, Colorado, received a suspension from his leadership role amid an ongoing investigation, Army officials confirmed. Col. Jason Lacroix, who led the depot for nearly two years, was suspended earlier this month pending an internal investigation, Justine Barati, a spokesperson for the



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Army's Joint Munitions Command, confirmed to Military Times. Details as to why the investigation is taking place were not immediately available.



The installation's deputy commander, Sheila Johnson, is now in charge, Barati said, adding there has been no impact to the depot's operations. Pueblo Chemical Depot is one of two remaining Army installations in the United States that stores chemical weapons, the other being [Blue Grass Army Depot](#), Kentucky.

The Colorado site originally stored more than 2,600 tons of mustard agent in projectiles and mortar rounds and expects to completely destroy its remaining stockpile this year, according to the program office that oversees the process.

Lacroix became the 39th commander of the installation in June 2021, according to a bio shared by the depot. Prior to serving at Pueblo, he was a senior military advisor for the [Deputy Assistant Secretary of Defense for Countering Weapons of Mass Destruction](#) in Washington, D.C. Before that, he served as a plans officer with Army Futures Command.

Lacroix did not immediately respond to a request for comment via social media.

Sampling and Analysis of Chemical Threat in Maritime Cargo Containers

By Tammy Waitt

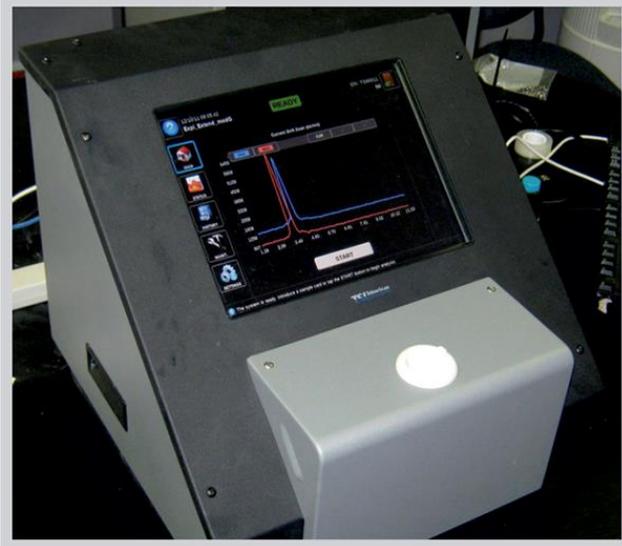
Source: <https://americansecuritytoday.com/sampling-and-analysis-of-chemical-threat-in-maritime-cargo-containers/>

May 20 – Customs and Border protection agencies worldwide are charged with protecting the public against terrorist attacks, and one widely recognized vulnerability for entry of threat substances is through seaports. Millions of containers arrive at a country's seaports each year, and managing this large volume of maritime cargo requires a large manpower force, advanced intelligence, and effective inspection capabilities. An effective inspection process includes screening shipping documentation and origin information, nonintrusive inspections, and physical examinations of cargo. The most widely used nonintrusive inspection is X-ray imaging of containers, which looks for anomalies in the cargo and unusual object images in various areas in the container. This process is time-consuming,



as images are frequently not clear enough to identify hidden objects which can be easily concealed in organic-based materials. Additionally, as geopolitical tensions rise globally, customs and border protection agencies must be alert for the potential transport of chemical warfare agents (CWAs), as their threats of use by individual terrorist groups have not diminished. Chemical terrorism events, war conflicts, or other emergencies connected with misuse of leakage of CWAs could cause large-scale contamination in both soil and air – and affect millions of people.

Any ship arriving at a seaport could potentially be transporting a container with enclosed chemical agents that could easily be released by remote detonation upon arrival or during the unloading of the container.



Many technologies have been applied to the rapid detection of CWAs but have not been used in the inspection process of marine containers.

This piece advocates for the capability of direct detection of CWA simulants in marine containers (also called sea containers), which is also applicable in screening air cargo containers.

Explosive/Narcotics/CWA Detector Model TSI-3000
Ion mobility spectrometer (Courtesy of TeknoScan Systems Inc.)

The technology is based on TeknoScan's Ion mobility spectrometer with a fast-polarity switch for detecting positive and negative ions.

Ion mobility spectrometer units perform fast analysis (in 20 seconds) and internal secondary validation (ISV) GC analysis.

Gas chromatograph-dual polarity ion mobility spectrometry is widely used to detect explosive materials, illicit drugs, and human trafficking in maritime cargo containers.

Detection

To demonstrate the approach, *Teknoscan Systems Inc.* analyzed ten CWA simulants and studied the results of vapor sampling and the analysis of two examples, dipropylene glycol methyl ether (DPGME) and diethyl methyl phosphate (DEMP).

Measurements were carried out at various soak times at temperatures varying from 10-15°C inside the container.

TeknoScan Aspiration Sample Card Model ASC-1000 (Courtesy of TeknoScan Systems Inc.)

The detector unit is based on a fast ion mobility spectrometer with an internal GC separator for dealing with complex samples



acquired when screening air cargo and marine containers.

The analysis was executed using a chemically treated sample card to collect and concentrate both vapors and particulates of threat substances.

A handheld sampler unit containing a Lithium battery and bottom air jets was used to assist in dislodging particulates adhering to surfaces and agitating the air inside an enclosure to induce airborne particulates.

The front opening accommodates the sample card, all types of particulate filters 30mm and 45mm diameters can also be accommodated.

TeknoScan Hand-Held Sampler Unit
Model HHS-1000 (Courtesy of TeknoScan)



The sample card was next inserted into a desorption module, where the sample was evaporated into a primary short column. The column is resistively heated to vaporize the concentrated sample into the analytical GC column, or part of the sample is directed into the ionization source of the IMS detector, this is schematically shown in Figure 1.

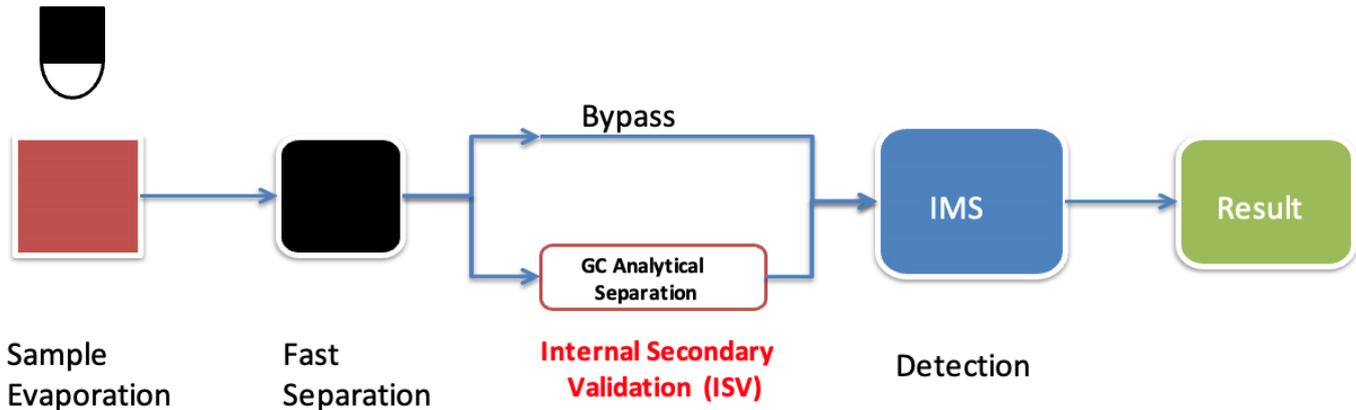


Figure 1: Schematic of Sample Processing into Detector Unit (Courtesy of TeknoScan Systems Inc.)

Detection limits for threat substances like explosives and narcotics vary from sub-nanogram to 5ng deposited on the sample card from a neat standard solution. The sensitivity is maintained on actual samples due to the instrument's front-end GC separation and built-in sample processing methodology.

Most simulants (including real CW agents) form the monomer and dimer peaks in chemical ionization ion mobility spectrometry for a single GC peak. And this was used to identify the substance based on both GC peak and reduced mobility constants.

Sample preparation of the simulant involved diluting pure simulant with methanol to make a solution of 60% simulant in methanol. A 1ml volume of the diluted solution was deposited on a coffee filter of roughly 10cm diameter.

The filter was placed halfway into the 20 ft container on a cardboard box. The container walls and floor were covered with Kraft paper to reduce contamination (it also acted as an absorber of evaporating simulant into the air space of the container).

All simulant solutions were purchased from Sigma-Aldrich with high purity (98-99%), with the exemption of diisopropyl methylphosphonate which was purchased from Cerilliant. Methanol was HPLC grade purchased from Caledon Chemicals, Ontario.

Table 1 shows the list of CWA simulants programmed in the detection system.

TABLE 1 CWA Simulants Detection Parameters				
Simulant	GC retention time (seconds)	Detection Mode	Drift Time	Reduced Mobility cm ² /V.sec
			m.sec	
DE2MP	44	Positive	7.896	1.022
Diethyl 2-methylallylphosphonate				
DE2MP	44	Positive	5.654	1.428
DE2MP	44	Negative	5.044	1.606
DE2PEP	86	Positive	9.3	0.868
Diethyl 2-phenylethylphosphonate				
DE2PEP	86	Positive	6.27	1.288
DE2PEP	86	Negative	5.916	1.369



DE2OBP	58	Positive	5.869	1.376
Diethyl 2-oxobutylphosphonate				
DE2OBP	58	Positive	8.16	0.989
DE2OBP	58	Negative	5.62	1.441
Methyl Salicylate	78	Negative	5.632	1.438
Methyl Salicylate	78	Positive	5.796	1.393
DIMP	32	Positive	7.747	1.042
Diso-propyl phosphonate				
DIMP	32	Positive	5.5	1.468
DEEP	35	Positive	7.214	1.119
Diethyl ethyl phosphonate				
DEEP	35	Positive	5.29	1.526
DEMP	27	Positive	5.17	1.562
Diethyl methyl phosphonate				
DEMP	27	Positive	6.858	1.177
DEDFMP	34	Positive	7.216	1.119
Diethyl difluoro-methyl phosphonate				
DEDFMP	34	Positive	5.295	1.525
Ammonium Nitrate (Explosive)	30	Negative	3.9	2.079
TNT (Explosive)	81	Negative	5.259	1.54
Triethyl Phosphate	38	Positive	7.484	1.079
Triethyl Phosphate	38	Positive	5.532	1.459
Trimethyl Phosphate	21	Positive	6.101	1.323
Trimethyl Phosphate	21	Positive	4.84	1.668
DPGME	107	Positive	7.189	1.122
Dipropylene glycol methyl ether				
DPGME	23	Positive	5.202	1.552

*Assignment Positive Mode: Monomer MH^+ ion and Dimer ion M_2H^+

*Assignment Negative Mode: M^- ion and clustering with dopant reagent. Ammonium nitrate is ionized by dissociative electron capture to form NO_3^- peak and its hydrated ions.

2.4 Container Sampling

A probe attached to the hand-held sampler is inserted through a gap between the gasket and the door. A clean sample card is inserted in the sampler, and 1 minute of sampling is executed by pressing the button on the handle of the sampler to activate the aspiration of the sample.

The aspirated sample is concentrated on the solid-phase extraction film coating on the sample card. The sample card is removed and inserted into the analyzer desorber module as shown in Figure 2. The sampling flow rate is typically 100L/min, with collection efficiency ranging from 10-50% depending on the type of substance being sampled.

Another method of nonintrusive sampling of the container is to connect a magnetic latch to the air vent and sample the air at a flow rate of 1000L/min. Each container typically has two air vents, one on the side of the door and one at the back.



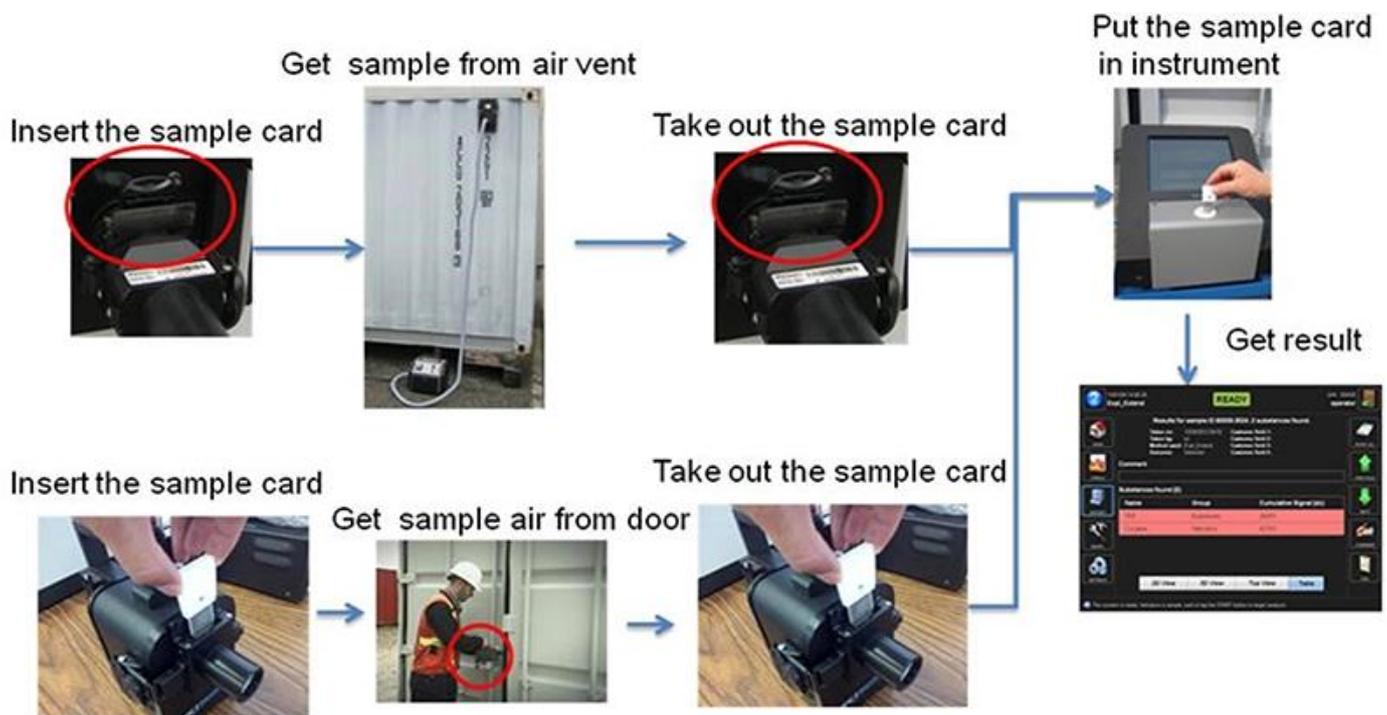
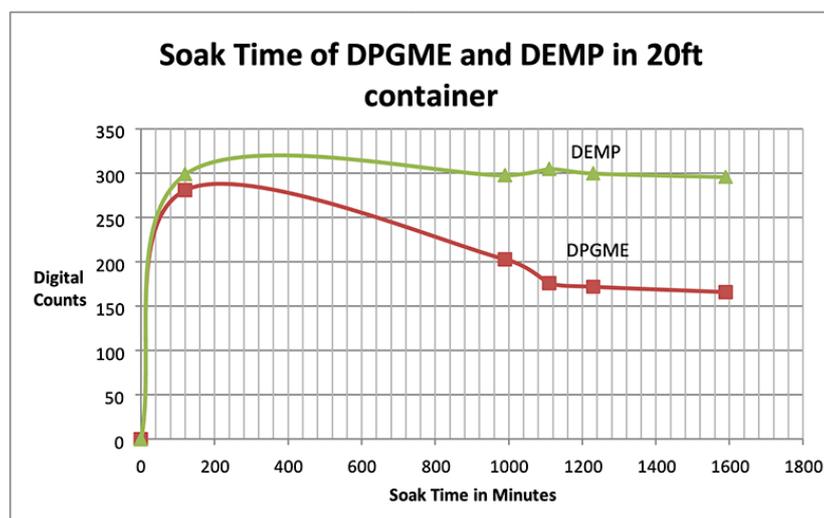


Figure 2: Sampling Procedure of Marine Cargo Container (Courtesy of TeknoScan Systems Inc.)

3. Soak Time in the Container

After placing the wet filter in the container, air samples were withdrawn with the hand-held sampler at various intervals. The outside temperature in North of Toronto was relatively cool, varying from the morning at 10°C to 15°C in the late afternoon.



The test continued the next day, and the measurements' data as a function of soak time are plotted in Figure 3 for CWA simulants DPGME and diethyl methyl phosphonate (DEMF).

Soak Time (Courtesy of TeknoScan Systems Inc.)

Vapor buildup was relatively quick in 100 minutes, and the next set of measurements was done later, showing a clear decrease in concentration inside the container. DPGME concentration continued to decrease over time, but still the vapor was detected even after approximately 26.7 hours. DEMF concentration remained steady but decreased after roughly 20 hours of incubation or soak time. Modeling the evaporation of DPGME

based on its vapor pressure at inside container temperature produced roughly 2.4ng/sec evaporation rate into a container volume of 33m³ at different times. For example, after 2 hours, concentration buildup inside the container would be roughly 0.5ng/L, assuming no losses to the walls and surrounding surfaces. The signal obtained after 2 hours was 299dc or the equivalent of 10ng (see calibration curve). The sampling flow rate was at 100L/min, and sampling done in 1 minute with a collection efficiency of approximately 10% would mean the vapor concentration of DPGME at roughly 1ng/L, which is in close agreement with the predicted concentration from the model. *At these low concentration levels, there are no concerns with EPA regulations and exposure limits.* This work demonstrates the importance of sampling and detecting threat chemicals that could be transported in a marine container. Furthermore, sample cards allow for



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rapid purging and heating of contaminated sample card and regeneration of active sites (utilizing TeknoScan SCC-1000 Sample Cleaner Unit), which cleans five sample cards in 3 minutes, so they require no consumables.

Conclusion

Present GC-IMS technology could better enable U.S. Customs and Border Protection (CBP) Agents with the ability to rapidly detect and identify explosives, illicit drugs, and chemical threats during cargo inspections.

Based on the mass volume of cargo containers entering the country annually, I believe that concealed CWP agents within maritime cargo shipments pose the highest risk of chemical weapons entering the United States.

Integrating intelligence information, X-ray imaging, and chemical detection as a primary or secondary inspection will provide the most benefit and needed security at a seaport.

[Dr. Sabatino Nacson, B.Sc., M.Eng., Ph.D.](#), is a world leader in new product development for the trace detection industry and has more than 25 years of experience in analytical chemistry and instrument development, including explosives, drugs, chemicals, pharmaceuticals, chemical warfare, and biological agents.

60,000 pounds of an explosive chemical lost during rail shipment, officials say

Source: <https://www.nbcnews.com/news/us-news/30-tons-explosive-chemical-lost-rail-shipment-officials-say-rcna85526>

May 22 – **About 60,000 pounds (~27,215 kg) of a chemical used as both a fertilizer and an explosive is missing after likely disappearing during a rail trip from Wyoming to California last month, according to federal records.**

A rail car carrying [ammonium nitrate](#) left a plant operated by explosives manufacturer Dyno Nobel in Cheyenne, Wyoming, on April 12, according to an incident report filed May 10 by a representative of the company with the National Response Center.

The report states the chemical was released "due to an unknown cause," and was discovered missing after the rail car arrived in Saltdale, California, an unincorporated community more than 1,000 miles from Cheyenne.

At the time of the report, the car was empty and on its way back to Wyoming, according to the company.



Ammonium nitrate has been a key ingredient in both terror attacks and fatal accidents.

At least 581 people were killed in 1947 when more than 2,000 tons of the chemical exploded on a cargo ship that had docked at a port in Texas City, Texas. The same year, in Brest, France, a Norwegian ship that contained about 3,000 tons of ammonium nitrate exploded, leading to 29 deaths.

It was also used in a 1970 bombing on the University of Wisconsin–Madison campus that led to one death and several injuries, and in the [1995 Oklahoma City bombing](#), which killed 168 people.

In 2013, ammonium nitrate [was the cause of an explosion at a fertilizer plant in West, Texas](#), killing 15 people, injuring 200 and wiping out hundreds of homes. Federal officials later found the blast was a "[criminal act](#)."

In 2020, it was the [source of a colossal explosion](#) in Beirut, Lebanon, when more than 2,700 tons of ammonium nitrate detonated, [killing more than 200 people and injuring thousands](#).

"It's a very common chemical that anybody that has used fertilizer has dealt with routinely and doesn't think anything about it," said Nathan Lewis, a chemistry professor at the California Institute of Technology, [told NBC News](#) following the Beirut explosion.



"Just give it a little fuel, and you're asking for trouble, and that's what apparently happened," Lewis said of the incident in Lebanon. **But a California law enforcement source familiar with the case told NBC News the recent disappearance of the chemical does not appear to be connected to any domestic terrorism threat.**

The agencies that would examine a potential threat to homeland security are not among the main investigative agencies involved in the case, the source said.

A representative for the National Transportation Safety Board did not immediately respond to a request for comment. The FBI also did not have any immediate comment.

A spokesperson for the Federal Railroad Administration said that Union Pacific's "initial findings suggest this was likely a leak caused by a component of the rail car."

"Rail shippers and railroads are responsible for ensuring rail cars are properly secured and the FRA will continue investigating to determine if the railroad or shipper committed any federal violations under DOT's regulatory authority," the FRA spokesperson added. The spokesperson added that Union Pacific and Dyno Nobel "should engage all necessary parties, including law enforcement, to ensure any potential causes and impacts are addressed swiftly and thoroughly."

Representatives for Dyno Nobel and the California Public Utilities Commission did not respond to requests.

Kristen South, a spokesperson for Union Pacific, the rail company transporting the chemical, said in a statement that the disappearance of the chemical should not threaten the public.

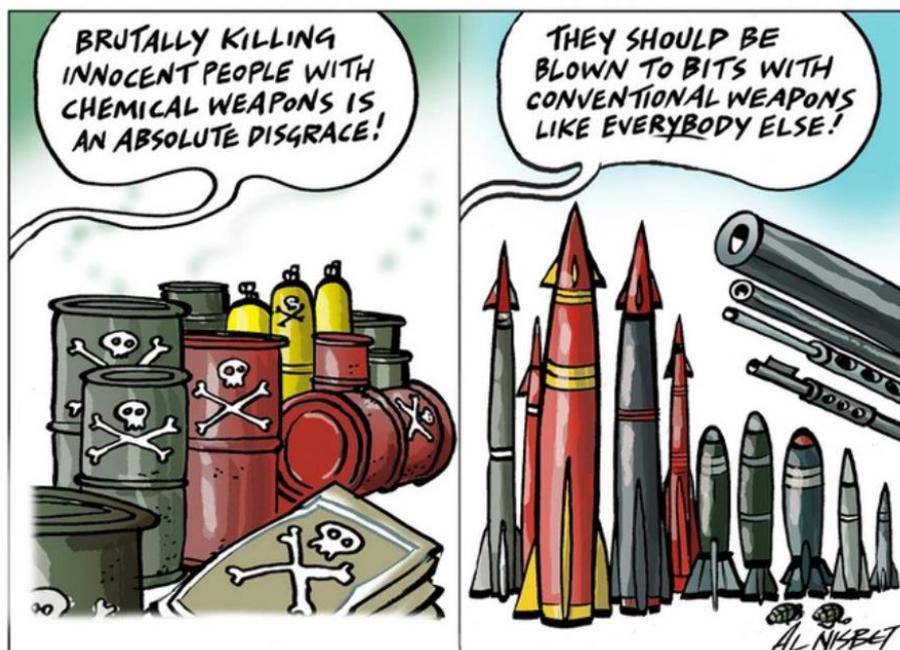
"The fertilizer is designed for ground application and quick soil absorption. If the loss resulted from a railcar leak over the course of transportation from origin to destination, the release should pose no risk to public health or the environment," South said, adding that the company's investigation into the incident "is in its early stages."

"At this point in the investigation, we do not believe there is any criminal or malicious activity involved," South added.

A representative for Dyno Nobel [told KQED](#), the California news outlet that first reported the incident, that company representatives believe the chemical leaked through the rail car while in transit. The **seals on the car were still intact** when the train arrived at its destination. In a statement, Dyno Nobel said, "The initial assessment is that a **leak through the bottom gate** on the rail car may have developed in transit."

"The railcar was sealed when it left the Cheyenne facility, and the seals were still intact when it arrived in Saltdale. The initial assessment is that a leak through the bottom gate on the railcar may have developed in transit," the spokesperson told KQED.

The route, which spans more than 1,000 miles through long stretches of remote territory in the western United States, will make it somewhat challenging to pinpoint the missing cargo or how it may have been released, sources said.



2023 CBRNE-RELATED CONFERENCES



<https://nct-events.com/event>

04-08 September: NCT USA
Aberdeen Proving Ground, Edgewood MD

04-11 November: NCT Asia
Kuala Lumpur, Malaysia

21-26 May: International CBRN Commandants and Commanders Conference (ICCC) 2023
Rotterdam, The Netherland

25-27 July, NDIA Annual CBRN Symposium and Exhibition
Baltimore Civic Center, Baltimore, MD
www.ndia.org/events

<https://cscm-congress.org/conference>

The 2023 CSCM World Congress will be held at Hotel Croatia. Situated across the bay from the historic walls of Dubrovnik, Hotel Croatia is a leading five-star resort and conference hotel on the southern part of the Adriatic Sea. Hotel Croatia's architecture blends seamlessly with its natural surroundings. Shaded by a pine tree forest, while offering spectacular sea views, all 487 rooms feature balconies, which overlook the Adriatic Sea or Cavtat Bay. State-of-the-art facilities include numerous gourmet restaurants, a spa center, and two beaches. Hotel Croatia is ideal for a broader experience of the Dubrovnik Riviera. Suited for business and relaxation alike, the Hotel Croatia serves as an excellent base for exploring the city of Dubrovnik and the Dubrovnik Riviera. The 2023 CSCM World Congress will be held under the auspices of the Government of the Republic of Croatia. In addition, we will enjoy active participation of the RACVIAC Center for Security Cooperation throughout the organization of the Congress as well as many other international and national organizations.



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CBRN DEFENCE
KİMYASAL, BİYOLOJİK, RADYASYON VE NÜKLEER SAVANAMA
POLİTİKALARI GELİŞTİRME MERKEZİ

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Within the body of Istanbul Aydın University, under the coordination of Istanbul Aydın University Environment and Human Health Application and Research Center (ÇEVİSAM) and CBRN Defense Policy Development Association the 1st of the "Istanbul CBRN Days" will be held. This meeting, which will provide the opportunity to share the knowledge and experience of very valuable participants on this subject in the



national sense, will accelerate the development of scientific infrastructure and studies on CBRN DEFENSE in our country and related institutions and organizations, will ensure that experts and employees in this field get to know each other, share their work and contribute to the increase of cooperation between them. We hope to be found.

CBRN environment; It covers a large number of dead, injured, and environmental effects, especially those who have been infected with biological warfare agents, exposed to chemical warfare agents and/or toxins, and injured as a result of the effects of nuclear weapons and radiation. The COVID-19 pandemic, which has been affecting the whole world for almost the last 3 years, has enabled us to better understand the Biological threat of the CBRN concept, and in a sense, it has revealed how intense and difficult management of CBRN events can cause and can cause mass losses. The threat of CBRN weapons, which started with the terrorist attack of September 11, 2001, and made a name for itself in the recent Syrian internal conflicts in the Middle East geography, including our country, has taken its place in the asymmetric war, and unfortunately, these agents are expected to be used in both war and terror environment in the future.

We think that this meeting, which will bring together many scientists, public and private sector representatives, will bring together many scientists, public and private sector representatives, based in Istanbul, which is the apple of the world's eye, and present the latest developments and technologies in the field of CBRN DEFENSE, and we think that this meeting will partially fill the deficiency of our Istanbul in this field. At the end of the event, we hope to see all the participants among us who will contribute to the "1st Istanbul CBRN Days", where we aim to raise awareness about CBRN threats and dangers.

You can find more detailed information about the KRBN Days, which we plan **to be held in Florya (Halit Aydın) Campus of Istanbul Aydın University on October 20 – 21, 2023**, and which we think will create an important added value for our country, at <https://istanbulkbrn.org/>

High-Intensity CBRN 2023

28 - 30 June 2023

<https://cbrneworld.com/events/poland>

CBRNe
WORLD

Putin's invasion of Ukraine in February 2022 was the end of a prelude that had begun a long time ago. Nato, and allied nations, need to prepare for the potential use of CBRN weapons that belonged to a different age.

How do military, and first responder, forces prepare for the kinds of mission sets where gallons, rather than milliliters of an agent are the order of the day? Where population centres are targeted, and military and civilian forces need to work together to save the lives of thousands of people unprepared for this kind of eventuality?

The event will have a pre-conference decontamination workshop, and a two-day conference and exhibition, and provide insight into the kinds of scenarios that forces need to prepare for, and help them develop a blueprint for managing them.

Each nation will give two presentations, the first on their current capability (0-3 years) and a second, academic one, that forecasts out to the medium term (5-10 years).

Held at the Military Academy of Technology (WAT) in the center of Warsaw, a city and country that will be on the front line of any escalation of threat, this will be THE thought leadership CBRN event of 2023.




2023 NATIONAL SPORTS SAFETY AND SECURITY
CONFERENCE & EXHIBITION

NCT PRO EXPERIENCE

24-26 MAY 2023
ROTTERAM, NL

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ISMCR 2023

25th International Symposium on Measurement and Control in Robotics
Iasi, Romania, September 21 – 22, 2023

<http://ismcr.org/2023-ismcr/>

This symposium will focus on various aspects of research, applications and trends of robotics, advanced human-robot systems and applied technologies, e.g. in the fields of robotics, telerobotics, autonomous vehicles, simulator platforms, as well as virtual/augmented reality and 3D modelling and simulation. Like its previous editions, ISMCR 2023 serves as a forum for the exchange of recent research results and novel ideas in robotic technologies and applications; this time with specific reference to smart mobility.

TOPICS

We are looking for original, high-quality contributions addressing (but not limited to) the following topics:

- | | |
|--|--|
| <ul style="list-style-type: none"> • Robot Design Innovations; • Sensors/Smart Sensors their Integration/Fusion; • Advanced Controls and Actuators; • Methods of Artificial Intelligence in Robotics; • Humanoid, Climbing/Walking, Service, and Autonomous Robots; • Anthropomorphic Robots/Mobile Robots; • Teleexistence/ Telepresence; • Augmented Reality/Mixed Reality/Virtual Reality (VR); • Communication with Realistic Sensations; • Intelligent CAD and IMS; • Visual/Auditory/Tactile/Force Displays; • Tools and Techniques for Modeling VR Systems; | <ul style="list-style-type: none"> • Software Architectures for VR; • VR Interaction and Navigation Techniques, Distributed VR Systems and Motion Tracking; • VR Input and Output Devices; • Innovative Applications of VR; • Human Factors in VR; • Evaluation of VR Techniques and Systems; • Internet and VRML Application of VR in all areas; • Interactive Art and Entertainment; • Education and Entertainment Robots; • Medical and Healthcare Robots; • Micro and Nano Robots; • Innovative Robotics Applications. |
|--|--|

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BIO NEWS



The pandemic
is OVER!



Pandemic by numbers (as of May 24, 2023)

	CASES	DEATHS	COUNTRIES & TERRITORIES	MOST AFFECTED COUNTRIES*
COVID-19	(673,522,769) 689,124,038	(6,748,144) 6,881,401	229	USA, India, Brazil, France, Germany, Japan, S. Korea

* over 30 million cases | numbers in parenthesis are patients of previous month

Big Data Study Debunks One of The Most Common Fears Surrounding COVID-19 Vaccinations

Source: <https://www.sciencealert.com/big-data-study-debunks-one-of-the-most-common-fears-surrounding-covid-19-vaccinations>

Apr 24 – A massive US-based study involving tens of thousands of military veterans has concluded there is a **negligible risk of developing a blood clot** as a result of a [COVID-19](#) vaccine.

While the results might do little to convince many [anti-vaccine](#) advocates of the [relative safety of vaccinations](#), it will hopefully reinforce confidence in communities that vaccines are far safer than the disease they're intended to prevent, which is known to elevate risks of developing a venous thromboembolism (VTE).

"This population-based study found only a trivial risk for VTE following COVID-19 vaccination," [says](#) Peter L. Elkin, MD, first author on the paper as well as professor and chair of the Department of Biomedical Informatics at the University of Buffalo.

"Given the large risk of VTE from COVID-19 infection, the risk-benefit ratio strongly favored vaccination," Elkin [says](#).

That has been the general consensus among experts all along, and fortunately it has resonated in much of the world, with 9.23 billion doses of COVID-19 vaccines administered globally so far.

Negligible clearly doesn't mean the risk is zero. Yet any chance of getting blood clots is several orders of magnitude higher if you are unvaccinated and infected by [SARS-CoV-2](#), an outcome that is incredibly likely in an unvaccinated population with minimal safety measures in place.

Vaccines are widely credited with helping blunt the [ongoing COVID-19 pandemic](#), saving countless lives in the process, and there is abundant evidence of their safety and efficacy.

Yet they have drawn suspicion from anti-vaccine advocates, many of whom point to news that emerged in 2021 about a possible link between [COVID-19 vaccines and blood clots](#).

That concern has lingered, despite [scant evidence of a significant risk](#) from vaccines, and its prevalence on social media and other public forums does suggest more clarity might help.

"There was concern by some that COVID-19 vaccination might cause undue harm and VTE was one of the mechanisms implicated by anti-vaxxers," Elkin [says](#). "We wanted to know the truth."

To do that, Elkin and his colleagues studied data from 855,686 people, all US military veterans at least 45 years old who had received at least one dose of a SARS-CoV-2 vaccine at least 60 days earlier. The control group included 321,676 people, also all US veterans in the same age range, but who were still unvaccinated.

The data came from the US Department of Veterans Affairs National Surveillance Tool, and covered a time period from January 1, 2020 – which was just before the first known US case of COVID-19 – to March 6, 2022.

The researchers accounted for a range of known VTE risk factors, including age, race, sex, and body mass index, to help focus on any effect from vaccines.

Vaccinated subjects had a VTE rate of 1.3755 per 1,000 people, the study found, which is 0.1 percent higher than the baseline VTE rate of 1.3741 per 1,000 among unvaccinated people.

"The excess risk was about 1.4 cases per million patients vaccinated," Elkin [says](#). "Given the fact that the rate of VTE with COVID-19 is several orders of magnitude greater than the trivial risk from vaccination, our study reinforces the safety and importance of staying current with COVID-19 vaccinations."

The minimally higher risk might stem from vaccine-induced immune thrombotic thrombocytopenia (VITT), the researchers note, an immune response that alters the quantity and quality of platelets, potentially leading to VTE. "VITT is now recognized as a rare complication of adenoviral vector-based SARS-CoV-2



vaccines," they write, referring to a category that includes the COVID-19 vaccines from [Janssen \(Johnson & Johnson\)](#) and [AstraZeneca](#).

The study suggests this small risk increase applies both to adenoviral vector vaccines and mRNA vaccines, including those produced by Moderna and Pfizer. In either case, the researchers argue, the risk is "trivial."

The risk of VTE from an actual [COVID-19 infection](#), on the other hand, is not.

VTE is a prominent consequence of COVID-19, the researchers note, occurring in about 8 percent of hospitalized patients and 23 percent of patients in the ICU.

Based on 28 days of data from 21 June 2021, these figures suggest at least 3,203 COVID-19-related excess VTE cases would have occurred out of the recorded 257,125 new COVID-19 cases during this time. But if all those people had been vaccinated, the expected number of excess VTE cases becomes less than one (0.36).

"This study shows the power of big data, where we can use electronic health record data in a rigorous way to answer questions that could never be properly answered with a randomized controlled trial, due to the small effect size and the need to recruit millions of patients to the trial," Elkin [says](#).

"It's an example of how biomedical informatics is answering important clinical questions," he [adds](#), "that can help people to recognize the benefit of COVID-19 vaccination and improve adherence to this approved clinical guideline."

●► The study was published in the [Journal of Clinical and Translational Science](#).

EDITOR'S COMMENT: In the past, such big studies were 100% trusted. After all the controversies about the safety and effectiveness of covid vaccines, there is suspicion that results have been biased/manipulated to regain trust and vaccinate.



Contents lists available at [ScienceDirect](#)

Heliyon

journal homepage: www.cell.com/heliyon



Review article

Possible toxicity of chronic carbon dioxide exposure associated with face mask use, particularly in pregnant women, children and adolescents – A scoping review



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'Huge biological risk' as Sudan fighters seize disease laboratory

Source: <https://www.telegraph.co.uk/global-health/terror-and-security/sudan-unrest-militia-rapid-support-forces-who-khartoum/>

Apr 25 – Fighters in Sudan's capital have captured an internationally-funded laboratory holding infectious disease samples, posing a "huge biological risk", the World Health Organization (WHO) has warned. Technicians have been thrown out of the National Public Health Laboratory and cannot secure pathogens including **measles, polio and cholera**. The WHO said the takeover had created an "extremely, extremely dangerous" situation. Nima Saeed Abid, the WHO's representative in



Sudan said fighters had "kicked out all the technicians from the lab... which is completely under the control of one of the fighting parties as a military base."

He did not clarify which side had seized the lab in Khartoum, which has been engulfed by 10 days of [fighting between rival generals](#). Mr Abid said: "There is a huge biological risk associated with the occupation of the central public health lab."

He went on: "This is the main concern: no accessibility to the lab technicians to go to the lab and safely contain the biological material and substances available." Fighting erupted between the Sudanese armed forces and [Rapid Support Forces \(RSF\) paramilitaries](#) on April 15 and has killed at least 459 people and injured 4,072, according to the WHO's latest figures.

The laboratory's website says it is partnered by the nations including China, the United Arab Emirates, South Korea and various international agencies including the WHO, World Food Programme and World Bank.

Staff at the laboratory have also warned that a lack of functioning generators was also adding to the biological hazards, and leading to blood stocks being spoiled. [Fighting has paralysed hospitals](#) and other essential services, and left many stranded in their homes with dwindling supplies of food and water. The United Nations humanitarian office (OCHA) said it had been forced to cut back on some of its activities. At least five aid workers have been killed since fighting broke out. Two UN agencies who lost staff, the International Organization for Migration and the World Food Programme, have suspended their activities.

npj | vaccines

www.nature.com/npjvaccines

MEETING REPORT **OPEN**

Mucosal vaccines for SARS-CoV-2: scientific gaps and opportunities—workshop report

Jane M. Knisely ^{1,2,12}, Lucas E. Buyon ^{3,12}, Rebecca Mandt ^{3,12}, Rebecca Farkas⁴, Shobana Balasingam⁵, Karin Bok⁶, Ursula J. Buchholz ⁷, M. Patricia D'Souza⁸, Jennifer L. Gordon², Deborah F. L. King⁵, Tung T. Le⁴, Wolfgang W. Leitner ⁹, Robert A. Seder ⁵, Alkis Togias⁹, Stig Tollefsen ⁴, David W. Vaughn ¹⁰, Daniel N. Wolfe¹¹, Kimberly L. Taylor² and Anthony S. Fauci^{1,12}

On November 7th and 8th, 2022, The National Institute of Allergy and Infectious Diseases (NIAID), part of the National Institutes of Health (NIH), The Coalition for Epidemic Preparedness Innovation (CEPI), The Bill & Melinda Gates Foundation (BMGF), The Biomedical Advanced Research and Development Authority (BARDA), and the Wellcome Trust hosted a virtual workshop entitled "Mucosal Vaccines for SARS-CoV-2: Scientific Gaps and Opportunities." During the workshop, researchers and vaccine developers from around the world discussed the potential of mucosal vaccines to block SARS-CoV-2 transmission and reviewed the status of SARS-CoV-2 mucosal vaccine research. Here, we summarize key challenges and opportunities in basic, translational, and clinical research that were highlighted during the meeting. We also provide recommendations to advance the field and accelerate the development of mucosal vaccines for SARS-CoV-2.

npj Vaccines (2023)8:53; <https://doi.org/10.1038/s41541-023-00654-6>



Rapidly Assessing the Emerging Biological Threat

By Dr. Richard Schoske

Source: <https://nct-cbnw.com/rapidly-assessing-the-emerging-biological-threat/>

Apr 22 – The threat faced from infectious biological agents continues to increase at a substantial rate. This is attributable to a number of factors including increased globalization, climate change, and the emergence of novel biotechnologies. The SARS-CoV-2 pandemic, which has affected the entire global population and brought about numerous unseen challenges throughout society, is clear evidence of the aforementioned threat. The development and large-scale implementation of both laboratory and at-home tests was likely beneficial in mitigating the spread of disease. However, this new reality was not matched with new solutions. These testing platforms have been in use for decades and their shortcomings were exposed in the form of their slow rollout (antigen tests) and requirement for laboratory processing (PCR). In order to better manage future biological threats, it is essential to explore and pursue diagnostic technologies that go beyond the traditional paradigms.



These paradigms are routed in pathogen-directed identification which often involve invasive collection techniques. Our goal is to develop agnostic approaches that can show a positive result before symptom onset, regardless of the pathogen that is present in the sample. These approaches also aim to predict severity of disease and thus enable medical personnel to appropriately triage persons afflicted with a pathogen. Finally, these approaches will move away from reliance on intrusive collection methods such as nasopharyngeal swabs or venipuncture.

“Pre-Symptomatic Diagnosis”

Effective management and mitigation of future epi- and pandemics will rely on a technology that goes beyond what currently exists in the field of biodetection, which until now is prompted only when a patient feels ill or believes they may have been exposed to someone who is infected. As has been seen in the past three years, existing testing technologies simply are not able to keep up with a highly-transmissible infectious agent, and in most cases, testing is done too late to effectively prevent a subject from exposing and/or infecting others.

A concept that is being active and aggressively pursued is pre-symptomatic diagnostics. In general, the process of contracting a biological agent takes place in four general steps: exposure, assimilation, infection, and disease. By the time a sick individual takes a test, they will likely have reached the disease stage of illness, which manifests itself in the traditional symptoms that typically lead a person to believe they are ill; however, prior to progressing to the disease stage, there are atypical biochemical processes occurring in the host that are only initiated during the assimilation and infection phases. The goal of this effort is to identify these host-based biomarkers that are expressed during the pre-symptomatic window and develop assays that are both sensitive and selective enough to be implemented in a new testing device.

Dr. Richard Schoske is Chief, Diagnostics & Detection Division (CBA), Chemical & Biological Technologies Department (CB), Research & Development Directorate (RD), Defense Threat Reduction Agency (DTRA) and Mr. Michael Boeri, DTRA RD-CBA, Fort Belvoir VA, USA.

●► [Read the full article at the source's URL.](#)

Dr. Richard Schoske is Chief, Diagnostics & Detection Division (CBA), Chemical & Biological Technologies Department (CB), Research & Development Directorate (RD), Defense Threat Reduction Agency (DTRA) and Mr. Michael Boeri, DTRA RD-CBA, Fort Belvoir VA, USA.

Scientists Have Found 30,000 New Viruses Hiding in The DNA of Microbes

Source: <https://www.sciencealert.com/scientists-have-found-30000-new-viruses-hiding-in-the-dna-of-microbes>

Apr 26 – While analyzing the genomes of single-celled microbes, a team of researchers made a startling discovery: Thousands of [previously unknown viruses](#) were "hidden" within the microbes' DNA.

The researchers found DNA from more than 30,000 [viruses](#) built into genomes of various [single-celled microbes](#), they report in a new study. They explain that viral DNA might enable a host cell to replicate complete, functional viruses.

"We were very surprised by how many viruses we found through this analysis," [says](#) lead author Christopher Bellas, an ecologist who studies viruses at the University of Innsbruck in Austria. "In some cases, up to 10 percent of a microbe's DNA turned out to consist of hidden viruses."

These viruses don't seem to sicken their hosts, the researchers say, and they might be beneficial. Some of the new viruses resemble [virophages](#), a type of [virus](#) that infects other pathogenic viruses attempting to infect its host cell.

"Why so many viruses are found in the genomes of microbes is not yet clear," Bellas [says](#). "Our strongest hypothesis is that they protect the cell from infection by dangerous viruses."

Living on Earth means contending with viruses, the planet's [most abundant](#) biological entities, collectively infecting every type of life form. They're highly diverse, using many different tactics to exploit their cellular hosts.





Arenavirus photographed under a transmission electron microscope. (Callista Images/Getty Images)

Regardless of semantic debates about whether [viruses are alive](#), they certainly insert themselves into the lives of other living things. Some even replicate by adding their DNA to a host cell and becoming part of its genome.

When that happens in a germ cell, it can lead to endogenous viral elements (EVEs), or viral DNA passed on from one generation to the next in a host species.

Scientists have found EVEs in a wide range of organisms, including animals, plants, and fungi. Mammals carry a variety of [viral fragments](#) in their DNA, for example, and about [8 percent](#) of the human genome consists of DNA from ancient viral infections.

The study's authors explain that most of these are no longer functional and are considered "genomic fossils." Research suggests EVEs can be adaptive in humans and other organisms, though, possibly helping fend off modern viruses.

That's true for many single-celled eukaryotes, the researchers point out, noting these microbes are commonly infected and killed by [giant viruses](#).

If a virophage already inhabits a host cell, it can reprogram a giant virus to build virophages instead of replicating itself, potentially saving the host.

According to the new study, DNA from the newly discovered viruses is similar to virophage DNA, suggesting microbes may enjoy some protection from giant viruses thanks to the "built-in" viruses residing in their genomes.

The study of EVEs so far has focused mainly on animals and plants, the researchers write, with little attention to [protists](#) – any eukaryotic organisms that aren't animals, plants, or fungi – even though they represent the majority of eukaryotic biodiversity on Earth.

Discovering thousands of new viruses hidden in microbe DNA wasn't the original goal for Bellas and his colleagues, who planned to study a new group of viruses they had found in the waters of Gossenköllesee, an alpine lake in the Austrian state of Tyrol.

"Initially, we wanted to find the origin of the new 'Polinton-like viruses' with our study," Bellas [says](#).

"However, we did not know which organisms are usually infected by these viruses. That's why we conducted a large-scale study to test all microbes whose DNA sequences are known."

To do that, they enlisted help from "Leo," a high-performance computer cluster at the University of Innsbruck that can efficiently analyze vast amounts of data.

Noticing genes from virophages and other viruses in many of the microbe genomes, the researchers decided to investigate further, using Leo to systemically analyze all publicly available draft genome assemblies of protists.

They found EVEs "hidden throughout repetitive, difficult-to-assemble regions of unicellular eukaryotic genomes," they [write](#), noting that thousands of integrated viruses in some species suggest viruses make up a significant, previously unrecognized swath of protist genomes. The study also found evidence that many protist EVEs are not just genomic fossils but functional viruses, the researchers [write](#), "which suggests that diverse arrays of these elements may be part of a host antivirus system."

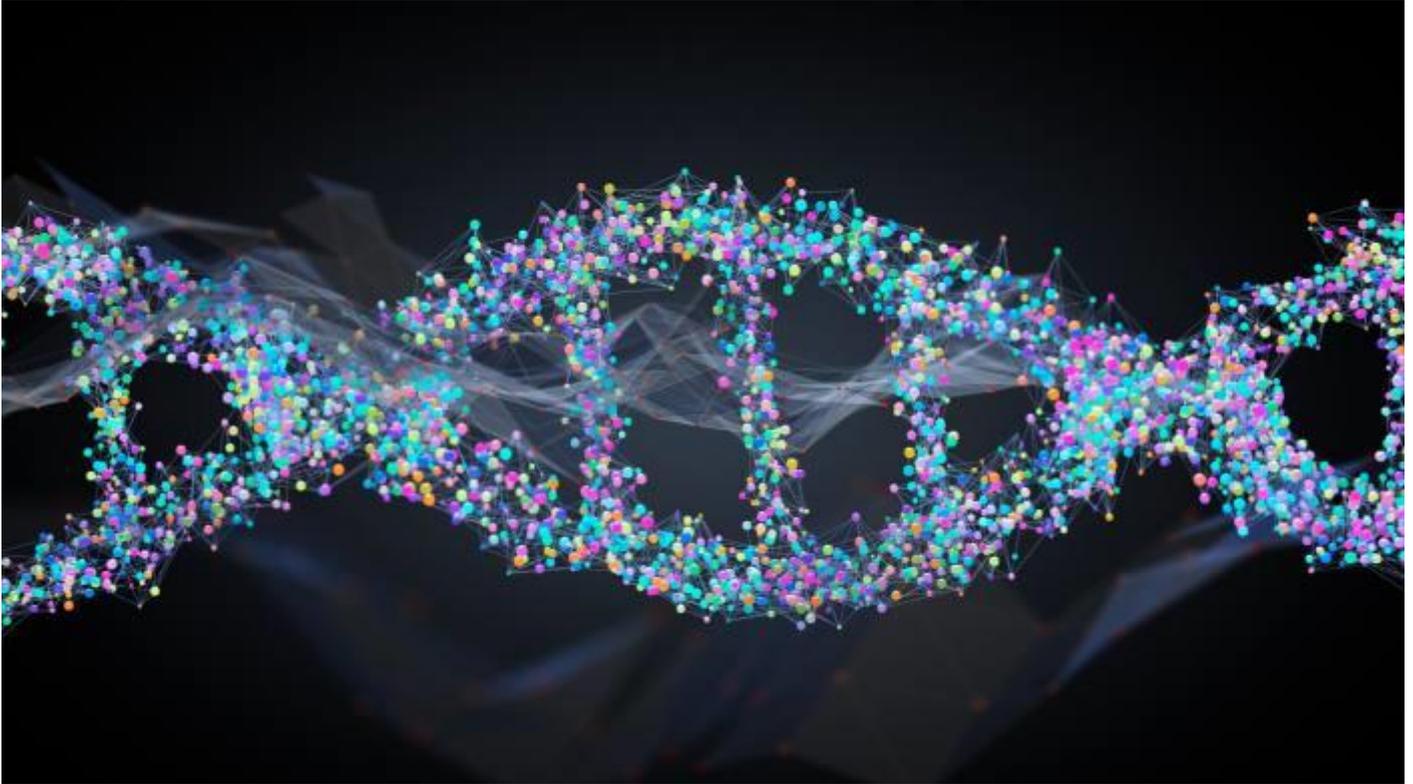
●► The study was published in the [Proceedings of the National Academy of Sciences](#).



There's a new US national security obsession — biotech

By Chris Miller (author of "ChipWar")

Source: <https://www.ft.com/content/cb9cd845-e9b0-4243-97f3-c315dac11fb4>



March 2023 – The ability to apply massive computing power to DNA is causing concern over biological warfare Chris Miller Spiral strand of DNA on the dark background Gene-editing technologies have become more precise and vastly cheaper, making it easier than ever to ‘reprogramme’ organisms © Alexey Kotelnikov/Alamy There’s a new US national security obsession — biotech on twitter (opens in a new window) There’s a new US national security obsession — biotech on facebook (opens in a new window) There’s a new US national security obsession — biotech on linkedin (opens in a new window) current progress 100% Chris Miller March 6 2023 68 Print this page Receive free Biotech updates We’ll send you a myFT Daily Digest email rounding up the latest Biotech news every morning. The writer is author of ‘Chip War’ When the US last week added several units of BGI Group, a Chinese genetic sequencing firm, to its entity list restricting technology transfer, the primary justification was that the company had been “contributing to monitoring and surveillance”, including of ethnic minorities. Yet the human rights implications of China’s domestic surveillance state aren’t Washington’s only concern. The new regulations also state that BGI’s programmes of “collection and analysis of genetic data [present] a significant risk of diversion to China’s military”. Biotechnology has quietly become America’s newest national security concern. From Congress to the intelligence agencies, Washington’s leaders have concluded that control over biotechnologies will be critical not only to the country’s health, but to national security as well. Biotech tools have made rapid advances of late, enabling new therapies, vaccines, manufacturing techniques — and biosecurity risks. It’s long been recognised that DNA is just a complex type of code, telling cells how to operate. Gene-editing technologies have become more precise and vastly cheaper, making it easier than ever to “reprogramme” organisms. In addition, more powerful computing capabilities have provided new clarity into the meaning of DNA’s “code”. One use of these capabilities is for manufacturing. For centuries, humans have relied on micro-organisms to produce beer and yoghurt, but with the right reprogramming, bacteria can be made to produce many new types of chemicals. In 2010, Darpa, the Pentagon’s long-range R&D arm, launched a programme called Living Foundries, aiming to synthetically manufacture 1,000 molecules. While there are many potential civilian uses of biomanufacturing, the US military has been a critical early investor. Living Foundries, for example, has already produced new fuels for missiles, which can be more perfectly tuned to the needs of missile engines than traditional fuel refining allows. The supply chain is simpler, too, with yeast (which manufactures the fuel) and sugar (which feeds the yeast) the two main ingredients. Darpa-backed researchers have also used microbes to produce antibiotics, pesticides, detergents, drug ingredients and liquid crystals. A key driver of these advances is the application of massive volumes of computing power



to DNA. Guess-and-check was a slow research method; deep-learning systems like Google's Deep Mind are far faster, as the company's AlphaFold protein-structure prediction tool demonstrates. Because of this, access to genetic data will be a critical resource. BGI, the Beijing-based firm, has gathered a vast trove of data, using products like prenatal tests and Covid-19 swabs, which are sold globally, to Hoover up genetic data. Aggregating genetic data is no bad thing. Progress depends on our ability to identify patterns in large data sets. The US is also trying to develop its own biodata infrastructure, though privacy concerns make this complicated. The question of who first gleans and deploys lessons from genetic data matters, however. Technological advances are ethically and politically neutral; everything depends on how and by whom they are wielded. As one Darpa director warned a decade ago, these techniques will eventually be used not only to create life-saving therapies and new materials, but also to "engineer micro-organisms to do bad things". Countries have engaged in biological warfare research for many decades, though thankfully we have avoided large-scale use of biological weapons thus far. Synthetic biology techniques probably increase this risk by driving down costs and improving targeting capabilities. The same technologies that will enable increasingly personalised medicine raise the risk of personalised pathogens, too. Worryingly, a recent report from the US National Academies concluded that weapons targeted towards a specific group's genome were not "technically feasible yet" but "will require continual monitoring". That's one reason why in last year's defence budget legislation, the US Congress set up a National Security Commission on Emerging Biotechnology. Several influential, tech-savvy legislators have been appointed to the commission. Meanwhile, the Biden administration last year released its own plan for creating a "sustainable, safe, and secure" bioeconomy, while commissioning new studies of security risks and the biomanufacturing supply chain. From the state department to intelligence agencies, Washington's bureaucracy is bulking up on biotech expertise to prepare for when the new national security worry becomes a reality.



Domestic Preparedness

Biosafety Laboratory Issues and Failures

By Robert C. Hutchinson

Concerns regarding unexpected biological incidents and their public health implications were discussed in a 2014 *Domestic Preparedness* biosecurity and bioterrorism [article](#). From the improper possession and storage of decades-old live [smallpox virus](#) in a former Food and Drug Administration laboratory (lab) on the National Institute of Health (NIH) campus to the possible exposure to live [Bacillus anthracis](#) (anthrax) by Centers for Disease Control and Prevention, agencies experienced lab accidents and made serious human errors. The biosafety lab concerns were not limited to these two serious incidents.



Volume 19, Issue 4, April 2023

Robert C. Hutchinson, a long-time contributor to *Domestic Preparedness*, was a former police chief and deputy special agent in charge with the U.S. Department of Homeland Security (DHS), Homeland Security Investigations in Miami, Florida. He retired in 2016 after more than 28 years as a special agent with DHS and U.S. Department of the Treasury. He was previously the deputy director for the agency's national emergency preparedness division and assistant director for its national firearms and tactical training division. His numerous writings and presentations often address the important need for cooperation, coordination, and collaboration between the fields of public health, emergency management, and law enforcement, especially in the area of pandemic preparedness. He received his graduate degrees at the University of Delaware in public administration and Naval Postgraduate School in homeland security studies. He currently serves on the Domestic Preparedness Advisory Board.

Explanation Proposed for Long-COVID Symptoms in the CNS

Source: <https://www.medscape.com/viewarticle/991160>

Apr 25 — The neurologic symptoms of long COVID appear to be explained by a phenomenon known as antigenic imprinting, which involves a misdirected immune response to the SARS-CoV2 virus, according to a collaborative study presented at the 2023 annual meeting of the American Academy of Neurology.

Already documented in several other viral infections, such as [influenza](#) and [human immunodeficiency virus](#), antigenic imprinting results in production of antibodies to previously encountered viral infections



rather than to the immediate threat, according to Marianna Spatola, MD, PhD, a research fellow at the Ragon Institute, Harvard University, Cambridge, Mass.

Original antigenic sin

In the case of persistent neurologic symptoms after COVID, a condition known as neuroPASC (neurological postacute sequelae of SARS-CoV2 infection), antibodies produced for previously encountered coronaviruses rather than for SARS-CoV2 might explain most or all cases, according to the data Dr. Spatola presented. The evidence for this explanation was drawn from a study of 112 patients evaluated months after an acute episode of COVID-19. Of these, 18 patients had persistent neurologic dysfunction. When compared with the 94 whose infection resolved without sequelae, the patients with prolonged neurologic impairments had relatively low systemic antibody response to SARS-CoV2. However, they showed relatively high antibody responses against other coronaviruses. This is a pattern consistent with antigenic imprinting, a concept first described more than 60 years ago as original antigenic sin. When the immune system becomes imprinted with an antigen from the first encountered virus from a family of pathogens, it governs all subsequent antibody responses, according to several published studies that have described and evaluated this concept.

Additional evidence

In Dr. Spatola's study, other differences, particularly in regard to the cerebrospinal fluid (CSF), further supported the role of antigenic imprinting as a cause of neuroPASC. For one, those with elevated immune responses to other common coronaviruses rather than SARS-CoV2 in the CSF relative to the periphery were more likely to have a bad outcome in regard to neurologic symptoms. Moreover, the CSF in neuroPASC patients "was characterized by increased IgG1 and absence of IgM, suggesting compartmentalized humoral responses within the CSF through selective transfer of antibodies from the serum to the CSF across the blood-brain barrier rather than through intrathecal synthesis," Dr. Spatola reported. In the case of COVID-19, the propensity for antigenic imprinting is not difficult to understand. "The common cold coronaviruses are pretty similar to SARS-CoV2, but they are not exactly the same," Dr. Spatola said. Her work and studies by others suggest that when antigenic imprinting occurs, "it prevents full maturation of the antibody response." NeuroPASC is one of many manifestations of long COVID, but Dr. Spatola pointed out that the immune response in the CSF is unique and the causes of prolonged neurologic impairment after COVID-19 are likely to involve different mechanisms than other long-COVID symptoms. "Antibodies in the brain are functionally different," said Dr. Spatola, noting for example that antibody-directed defenses against viral threats show a greater relative reliance on phagocytosis. This might become important in the development of therapeutics for neurologic symptoms of long COVID.

A different phenomenon

The manifestations of neuroPASC are heterogeneous and can include confusion, cognitive dysfunction, [headache](#), encephalitis, and other impairments. Neurologic symptoms occur during acute SARS-CoV2 infections, but neuroPASC appears to be a different phenomenon. These symptoms, which develop after the initial respiratory disease has resolved, were attributed by Dr. Spatola to persistent inflammation that is not necessarily directly related to ongoing infection. "The reason why some patients develop neuroPASC is unknown, but I think the evidence has pointed to a role for the immune system rather than the virus itself," Dr. Spatola said. Currently, neuroPASC is a clinical diagnosis but Dr. Spatola and her coinvestigators are conducting research to identify biomarkers. A viable diagnostic test is not expected imminently. They have identified 150 different features with potential relevance to neuroPASC. In their comparison of those who did relative to those who did not develop neuroPASC, the initial studies were undertaken 2-4 months after the acute COVID-19 symptoms had resolved. The patients with neuroPASC and those without neurologic sequelae have now been followed for 6-8 months, which Dr. Spatola said was too short to draw firm conclusions about outcomes.

An evolving concept

Despite the small sample size of this study, these are "very interesting data" for considering the pathogenesis of neuroPASC, which is "a concept that is still evolving," according to Natalia S. Rost, MD, chief of the [stroke](#) division, department of neurology, Massachusetts General Hospital, Boston.

Applied to SARS-CoV2, the concept of original antigenic sin "is new" but Dr. Rost said that it might help differentiate neuroPASC from acute neurologic symptoms of COVID-19, which include stroke. She indicated that the work performed by Dr. Spatola and others might eventually explain the pathology while leading to treatment strategies. She cautioned that the concepts explored in this study "need to be further developed" through larger sample sizes and the exploration of other variables that support the hypothesis.



Biological Weapons Convention

Source: <https://disarmament.unoda.org/biological-weapons/>



Biological weapons disseminate disease-causing organisms or toxins to harm or kill humans, animals or plants. They can be deadly and highly contagious. Diseases caused by such weapons would not confine themselves to national borders and could spread rapidly around the world. The consequences of the deliberate release of biological agents or toxins by state or non-state actors could be dramatic. In addition to the tragic loss of lives, such events could cause food shortages, environmental catastrophes, devastating economic loss, and widespread illness, fear and mistrust among the public.

The Biological Weapons Convention

The Biological Weapons Convention (BWC) effectively prohibits the development, production, acquisition, transfer, stockpiling and use of biological and toxin weapons. It was the first multilateral disarmament treaty banning an entire category of weapons of mass destruction (WMD).

The BWC is a key element in the international community's efforts to address WMD proliferation and it has established a strong norm against biological weapons. The Convention has reached almost universal membership with 185 States Parties and four Signatory States.

Text of the Convention

The BWC itself is comparatively short, comprising only 15 articles. Over the years, it has been supplemented by a series of additional understandings reached subsequent Review Conferences. The BWC Implementation Support Unit regularly updates a document that provides information on additional agreements which (a) interpret, define or elaborate the meaning or scope of a provision of the Convention; or (b) provide instructions, guidelines, or recommendations on how a provision should be implemented.

The text of the Convention is available for download in the six official UN languages: [English](#), [Español](#), [Français](#), [Русский](#), [中文](#), [عربي](#)

Formally known as "The Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction", the Convention was negotiated by the Conference of the Committee on Disarmament in Geneva, Switzerland. It opened for signature on 10 April 1972 and entered into force on 26 March 1975. The BWC supplements the 1925 Geneva Protocol, which had prohibited only the use of biological weapons.

States Parties to the Biological Weapons Convention undertook "never in any circumstances to develop, produce, stockpile or otherwise acquire or retain:

1. microbial or other biological agents, or toxins whatever their origin or method of production, of types and in quantities that have no justification for prophylactic, protective or other peaceful purposes;
2. weapons, equipment or means of delivery designed to use such agents or toxins for hostile purposes or in armed conflict."

BWC States Parties have strived to ensure that the Convention remains relevant and effective, despite the changes in science and technology, politics and security since it entered into force. Throughout the intervening years, States Parties have met approximately every five years to review the operation of the BWC. Between these Review Conferences, States Parties have pursued various activities and initiatives to strengthen the effectiveness and improve the implementation of the Convention. A total of eight Review Conferences have taken place since the first one in 1980.

Key Provisions of the Convention

Article	Provision
Article I	Undertaking never under any circumstances to develop, produce, stockpile, acquire or retain biological weapons.
Article II	Undertaking to destroy biological weapons or divert them to peaceful purposes.
Article III	Undertaking not to transfer, or in any way assist, encourage or induce anyone to manufacture or otherwise acquire biological weapons.



Article IV	Requirement to take any national measures necessary to prohibit and prevent the development, production, stockpiling, acquisition or retention of biological weapons within a State's territory, under its jurisdiction, or under its control.
Article V	Undertaking to consult bilaterally and multilaterally and cooperate in solving any problems which may arise in relation to the objective, or in the application, of the BWC.
Article VI	Right to request the United Nations Security Council to investigate alleged breaches of the BWC, and undertaking to cooperate in carrying out any investigation initiated by the Security Council.
Article VII	Undertaking to assist any State Party exposed to danger as a result of a violation of the BWC.
Article X	Undertaking to facilitate, and have the right to participate in, the fullest possible exchange of equipment, materials and information for peaceful purposes.

Are You Surprised? Fauci, Gates, DOD & CDC Funded Sudanese Lab Taken Over By Militants



By Kelen McBreen

Source: <https://www.newswars.com/are-you-surprised-fauci-gates-dod-cdc-funded-sudanese-lab-taken-over-by-militants/>

Apr 26 – An exclusive report by Natalie Winters of the *War Room With Stephen Bannon* highlights the American government's involvement with a laboratory in Sudan that was recently overtaken by a group of rebel fighters who are at war with the nation's military.

The World Health Organization on Tuesday [warned the globe of a "huge biological risk"](#) now dangerous virus samples are in the hands of the rebels.

[Winters' article, published Wednesday](#), detailed how the lab has received funding from Dr. Anthony Fauci's NIH, the Centers for Disease Control and Prevention and even the Department of Defense.

Winters uncovered a CDC pamphlet from 2022 revealing the agency "supported establishment of the first viral load monitoring facility at South Sudan's National Public Health Laboratory (NPHL)" back in 2018.

Additionally, a [research paper](#) from July 2022 shows the lab was funded by the CDC and thanks the DOD's US Agency for International Development for providing the researchers with "support."

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Regarding NIH funding of the lab, Winters listed NIAID grants during Fauci's tenure totaling over \$20 million.

- K08 [AI100923](#): \$685,800
- R01 [AI130378](#): \$1,805,616
- [AI106878](#): \$7,341,083
- [AI099243](#): \$7,877,483
- [AI103055](#): \$3,850,785

One study funded by the National Institute of Allergy and Infectious Diseases (NIAID) acknowledged The Bill and Melinda Gates Foundation as a financial contributor.



CDC *in* SOUTH SUDAN



Accessible version: www.cdc.gov/globalhivtb/where-we-work/southsudan/southsudan.html

The Centers for Disease Control and Prevention (CDC) established an office in South Sudan in 2006 to work on HIV prevention through the U.S. President's Emergency Plan for AIDS Relief (PEPFAR). CDC partners with the Ministry of Health (MOH) to focus on national responses to HIV, tuberculosis, diarrheal diseases and cholera, Ebola preparedness, measles, polio, and COVID-19. CDC's partnership and investments help strengthen disease surveillance capabilities, laboratory systems, data and health information management systems, and the public health workforce.

 CDC's 15-year partnership with the MOH provided a strong foundation for Ebola preparedness efforts from 2018 to 2020 and during the ongoing COVID-19 response



In 2018, CDC supported the establishment of South Sudan's National Public Health Emergency Operations Center (PHEOC)



CDC expanded the Extension for Community Healthcare Outcomes (ECHO) Project to 54 healthcare facilities since 2018



Since March 2021, 48 residents, representing all 10 states, graduated from South Sudan's Field Epidemiology Training Program (FETP)



With CDC support, South Sudan delivered nearly 1.3 million COVID-19 vaccine doses since April 2021



In response to COVID-19, CDC supported the PHEOC to establish the Data Management Unit (DMU). DMU is a first-of-its-kind data hub that generates quality outbreak data and informs decision-making, preparedness, and response



In 2021, CDC adapted HIV strategies to minimize treatment interruptions for people living with HIV during the COVID-19 pandemic. CDC transitioned to a new treatment regimen (TLD) and started 6-month antiretroviral treatment (ART) and community refills



In April 2022, the MOH launched the Incident Management System (IMS) for HIV/AIDS to accelerate progress toward HIV control



CDC helped deliver ART to more than 31,000 people living with HIV in 2021



CDC supports HIV service delivery in approximately 70 health facilities. Most of these facilities are in the Equatoria region and Lakes and Western Bahr El Ghazal states

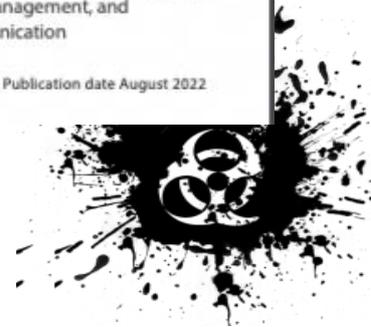


In May 2018, CDC supported establishment of the first viral load monitoring facility at South Sudan's National Public Health Laboratory (NPHL)



As part of the Expanded Program on Immunization (EPI), 56 trainees from across South Sudan were trained in vaccine-preventable disease surveillance, cold-chain logistics, data management, and communication

Publication date August 2022



During the COVID-19 pandemic, the United States Agency for International Development (USAID) “funded procurement of COVID-19 tests and provided equipment” to the Sudanese lab and “designated regional laboratories to rapidly scale up testing capabilities.” Winters also cited a 2018 WHO press release thanking several American agencies for working with the Sudanese labs.

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Data Availability Statement: All relevant data are within the paper and its Supporting Information files

Funding: This work was supported by The National Institute of Health (K08 AI100923 to D.T.L., R01 AI130378 to D.T.L., AI106878 to E.T.R., AI099243 and AI103055 to J.B.H.), The Bill and Melinda Gates Foundation (OPP1089243 to J.L., A.S.A., Delivering Oral Vaccine Effectively (DOVE) Project, OPP153556 to D.A.S., F.J.L., A.S.A., and OPP 1089248 to WHO), the Intramural Research

methods for determining cholera-specific immune responses from dried blood spots (DBS).

Methodology/principal findings

As conventional vibriocidal assay methods were unsuitable for DBS eluates from filter paper, we adopted a drop-plate culture method. We show that DBS collected from volunteers in South Sudan, and stored for prolonged periods in field conditions, retained functional vibriocidal antibodies, the titers of which correlated with paired serum titers determined by conventional spectrophotometric methods ($r = 0.94$, $p = 0.00012$). We also showed that eluates from DBS Serum Separator cards could be used with conventional spectrophotometric vibriocidal methods, and that they correlated with paired serum at a wide range of titers ($r = 0.96$, $p < 0.0001$). Similarly, we used ELISA methods to show that *V. cholerae* O-specific polysaccharide antibody responses from DBS eluates correlated with results from paired serum for IgG ($r = 0.85$, $p = 0.00006$), IgM ($r = 0.79$, $p = 0.00049$) and IgA ($r = 0.73$, $p = 0.0019$), highlighting its potential for use in determination of isotype-specific

“Thanks to Global Fund, ECHO, CDC and USAID, South Sudan has made progress in building and strengthening the laboratory capacity to test and report results in a safe, secure, timely and reliable manner for outbreaks and emergencies, the challenging circumstances notwithstanding said Evans Liyosi, WHO Representative for South Sudan. He noted that this development is in line with the expectations of the WHO Laboratory Improvement for Emergencies (LIFE) initiative and the International Health regulations, for vulnerable WHO member states including South Sudan.”

Several American-funded laboratories across the world have been at the center of massive news stories such as COVID-19 being leaked from the U.S.-funded Wuhan lab or Russia invading Ukraine to rid the European nation of its U.S.-funded biolabs.

Like Iraq War skeptics before them, COVID skeptics were right about almost everything

By Peter Laffin

Source: <https://www.washingtonexaminer.com/restoring-america/fairness-justice/like-iraq-war-skeptics-before-them-covid-skeptics-were-right-about-almost-everything>

Apr 27 – It’s hard to believe now, but [72% of Americans](#) approved of the Iraq War at the time of the invasion.

The propaganda was powerful across the aisle — at the time of the invasion, [69% of Americans believed](#) that Saddam Hussein was “personally involved” in the 9/11 attacks. The war effort’s chief pamphleteer, the *New York Times*, used every ounce of its prestige to rally the educated set by reporting unsubstantiated tripe about a [supposed stockpile](#) of weapons of mass destruction.

Meanwhile, Fox News, led by prime-time hosts Bill O’Reilly and Sean Hannity, shored up the right flank by conflating support for the troops with support for the mission. This simple tactic, punctuated by flag lapel pins and glossy flag graphics waving in the background of their telecasts, effectively bludgeoned war skeptics. In February and March of 2003, public skepticism of the Iraq War was akin to social suicide. Any form of dissent, we were told, “emboldened the terrorists” and made America vulnerable to another terrorist attack on the scale of 9/11.

The same spirit of censorship and social coercion took hold 17 years later with the onset of COVID-19.

Similarly to 9/11, the pandemic frightened the public into compliance, which enabled powerful forces within the government and media to advance a predetermined agenda without resistance. Based on the authority of supposed “experts,” narratives were crafted in both instances that prohibited the free and open



exchange of ideas. Assumptions that would eventually be proven false were taken as gospel and defended with religious zealotry. But in the aftermath of both these events, the skeptics who were silenced were vindicated by the facts, while the supposed “experts,” from *The Bulwark*’s bloodthirstiest neocon Bill Kristol to the now disgraced Dr. Anthony Fauci, were allowed to slink away without receiving anything near just due.

Justifiably, the Iraq War is now commonly understood as the worst foreign policy decision in American history, bar none. It was based on lies and manipulation, [executed shamefully](#), and as a result, America lost excess lives, treasure, and moral authority. The fact that Iraq War boosters such as Kristol are still allowed access to the national conversation as representatives of major media companies is shameful. It’s beyond words, really.

In the case of COVID-19, the skeptics who were silenced continue to be vindicated by the minute. It is urgent to enumerate the ways in which our “experts” failed the American public in order to cut through the thick fog laid by the propagandists in the initial aftermath. For instance, despite years of treating masking skeptics as subhuman, masking as a public health policy objectively [did not work](#). The Cochrane Review, the world’s most esteemed meta-study, found that wearing a medical or surgical mask “probably makes little or no difference” in stopping the spread of respiratory viruses, including COVID-19. Newly released [research from St. George’s Hospital in London](#) confirm Cochrane’s findings. Masking as public health policy is now only the preferred solution of those who refuse to “follow the science.”

In addition, despite assurances from our “experts” to the opposite, the mRNA COVID-19 vaccines [did not “stop the spread”](#) of the virus, were [not as effective as advertised](#), and were not [as safe](#).

Even Canadian Prime Minister Justin Trudeau is now attempting to gaslight the world by claiming that he never forced anyone to get vaccinated. These, of course, are the same people who harangued the public about the “pandemic of the unvaccinated” and attempted to enforce the carrying of vaccination cards in order to gain entry into restaurants and concert venues. These cards, like the Bush-era color-coded, terror threat level system before it, are now merely relics of failed despotism.



And finally, despite years of bullying individuals who offered competing views and banning them on social media, it has become increasingly clear that COVID-19 [was the product of a biosafety event in Wuhan, China](#), otherwise known as a “lab leak.”

In February, the Department of Energy concluded that COVID-19 came from a lab, joining the FBI in holding this assertion. Ever thick, the liberal commentariat disparaged the department by questioning what business Energy has waded into such matters. But as it turns out, the Energy Department is home to perhaps the most [elite and secretive unit in government known as “Z Division”](#) which is responsible for, among other things, monitoring foreign weapons of mass destruction programs.

The bipartisan “expert” class that got everything wrong in regard to the Iraq War and COVID-19 — and who successfully suppressed dissent — deserve only ridicule for their efforts. In a just world, they would be driven out of power wherever they still hold it and never taken seriously again.

The damage wrought by their deceit and incompetence must never be forgotten. Indeed, it should be recounted regularly so that ordinary Americans never again come under the thumb of opportunists who wait in the wings for a crisis to exploit.

[Peter Laffin is a contributor at the Washington Examiner and the founder of Crush the College Essay. His work has also appeared in RealClearPolitics, the Catholic Thing, the National Catholic Register, and the American Spectator.](#)

Can a 50-year-old treaty still keep the world safe from the changing threat of bioweapons?

By Jen Kirby

Source: <https://www.vox.com/future-perfect/23700801/bioweapons-biological-weapons-convention-united-nations-covid-corona-virus-russia-biology>



Apr 28 – Venomous Agent X is a [deadly nerve agent](#), though you likely know it by another name: VX. It’s an amber, oil-like liquid that targets the body’s nervous system. A [single drop on the skin](#) can kill within minutes. In 2017, North Korea is believed to have used VX to assassinate Kim Jong Un’s estranged half-brother in a Malaysian airport. [Kim Jong Nam suffered severe paralysis](#), dead in about 20 minutes from a weapon of mass destruction.

Sean Ekins and his team thought of the toxin for a possible experiment, one he needed to meet a last-minute deadline for a [presentation](#) at the Spiez Laboratory in Switzerland, at a conference examining how developments in science and technology might affect chemical and biological weapons regimes. Ekins is a scientist and CEO of Collaborations Pharmaceuticals, a lab that uses machine learning platforms to seek



therapeutic treatments for rare and neglected diseases. He and his colleague Fabio Urbina wanted to test and see if they could flip their AI software, MegaSyn. Instead of steering the software away from toxicity, they wanted to see if they could guide the model toward it.

The scientists trained the software with some 2 million molecules [from a public database](#), and then modeled for specific, toxic traits. In [just six hours](#), the AI generated some 40,000 molecules that met the scientists' criteria, meaning that, based on their molecular structure, they all looked quite a lot like toxic chemical agents. The AI designed VX. It designed other known toxic agents. It even designed entirely new molecules that the scientists hadn't programmed for, creating a sketch for potentially lethal and novel chemical compounds.

The experiment was computational — a digital recipe for molecules like VX, not a physical creation of it or any other substance. But Ekins and his team used open source, publicly available data. The AI they used was also largely open source as well; they just tweaked the models a little bit.

Ekins was horrified. What he and his colleague had thought was a banal experiment ended up creating a cookbook for chemical agents. "If we could do this," Ekins said, "what's to stop anyone else doing it?"

[VX, after all, is a banned substance](#) under the Chemical Weapons Convention. A lab can't just produce or go out and order up VX; countries face inspections to make sure they don't have the stuff, or something like it, hanging around. VX doesn't exist in nature, and it has no dual uses; that is, it has no therapeutic value or positive benefit. The only reason to have VX is to kill.

That isn't the case for many things found in nature, like a virus or, well, your own DNA. Which is why this experiment got so much attention, not just among chemical warfare experts but among those who worry, specifically, about biological weapons. It showed just how simple it might be to apply it to the things that exist all around us, that can't be tightly controlled, and that very likely have dual uses. Machine learning could be used to find ways to tweak a virus to make it less virulent, or more treatable. Or it could be used to make that virus more difficult to detect, or more deadly. And, if you or a nation-state are so inclined, wield it as a biological weapon.

Biological weapons, of course, are outlawed, too. The [Biological Weapons Convention \(BWC\)](#) prohibits the production, use, development, stockpiling, or transfer of biological toxins or disease-causing organisms against humans, animals, or plants. More than 180 countries are party to the pact, which came into force in 1975 as the first multilateral treaty to ban an entire class of weapon. And in the years since, the taboo against state use of biological weapons has largely held.

Yet a volatile geopolitical environment, combined with the rapid advance and increased access in the ability to edit and engineer pathogens, is straining and testing the nearly 50-year-old BWC as never before.

"It's like a race between the technology being developed really quickly and the biosecurity community racing to put the safeguards around it," said Jaime Yassif, vice president of global biological policy and programs at the Nuclear Threat Initiative.

No treaty is perfect, but from the BWC's beginnings, critics have said it lacked vital elements, like a verification mechanism to make sure everyone is following it. Global tensions, scientific advances, and the ever-expanding repertoire of what is possible with both biology and chemistry are making those flaws and cracks ever more visible.

Late last year, at the Ninth Annual Review Conference for the Biological Weapons Convention at United Nations Headquarters in Geneva, Switzerland, countries broadly agreed that they needed to find ways to strengthen the pact, to make it fit for purpose in a more chaotic, unpredictable world. As is often the case in arms control, agreement is one thing, action another. The same forces buffeting the treaty are also making it nearly impossible to update it for a different age, or even agree on what it means now. The longer the BWC stands still, the faster barriers against a deliberate biological attack begin to fall away. That makes the world more vulnerable than ever to a threat the international community tried to eradicate 50 years ago.

Illness, weaponized

Biological weapons are the "poor man's atom bomb," said Yong-Bee Lim, the deputy director of the Converging Risks Lab and Biosecurity Projects Manager at the Council on Strategic Risks. They are weapons that can often be built on the cheap, using materials found in nature. Even before the world understood what caused disease, countries used things against their enemies they knew carried contagion: [catapulting plague-infested corpses over fortified walls](#), or giving or selling clothes or blankets from [smallpox](#) patients. But biological weapons were always held in a separate category in warfare. They are inherently risky: Contagions are hard to control and contain, and the same pathogens that can infect your target can also sicken you and your population. This is also why they tend to be used as a stealth agent of war; humanity has a general repugnance toward disease and poison that doesn't extend to other armaments. "It has always been seen as an ungentlemanly weapon," said Filippa Lentzos, a biosecurity expert and associate professor at King's College London. "It's never an element of your arsenal that you are proud to display. It's always an underhand thing."



Those factors helped bolster a taboo against biological weapons, which the international community first tried to prohibit with the 1925 Geneva Protocol against chemical and biological methods of warfare. That pact didn't stop many countries from building biological weapons programs through World War II, with germs used [most notoriously by Japan in China](#). Well into the Cold War, [the United States had a program of its own housed outside Washington, DC, at Fort Detrick](#), along with a chemical and biological weapons [testing base in Utah](#).

The US wasn't alone. The Soviet Union also had an offensive biological weapons project, as the two superpowers raced to match each other in armaments. But in the late 1960s, [some high-profile mishaps](#) linked to the US chemical and biological weapons programs — [including a toxic cloud from a test of VX that killed or injured 6,000 sheep](#) — along with public anger over the use of herbicides [like Agent Orange](#) during the Vietnam War, prompted Congress to pressure the Nixon administration to review the biological and chemical weapons programs. "Biological weapons have massive, unpredictable and potentially uncontrollable consequences," President Richard Nixon [said](#) in 1969 after the release of the review, which essentially concluded that these kinds of offensive programs weren't worth the risks.

The US would ultimately renounce the use of biological warfare, instead focusing its research on defense and safety measures. The American decision, which [came after other allies turned away from their biological weapons programs](#), seeded the conditions for the creation of the BWC.

States have not engaged in known biological weapons attacks since — which is not the same thing as saying the treaty hasn't been violated. The Soviet Union continued to build a big and sophisticated biological weapons program in the decades after it signed the BWC. That became clear [after the fall of the USSR in 1991](#). Other signatories have been suspected [of maintaining offensive weapons programs](#) at different points post-1975, including [South Africa](#) and [Iraq](#). Today, US intelligence [assesses that Russia and North Korea](#) maintain active offensive programs, both in violation of the BWC.

The good and the bad of the BWC

The BWC calls the deliberate use of biological weapons "repugnant to the conscience of mankind." The [document itself is short](#), just 15 articles, with the first explicitly banning the development, production, stockpile, and transfer of microbial or biological agents or toxins, "whatever their origin or method of production."

It is broad and not particularly specific, but given the dual-purpose and rapidly changing nature of biological research, that is also its strength: "It does make the convention quite future-proof," said Daniel Feakes, chief of the BWC Implementation Support Unit (ISU), the main body overseeing the convention.

The BWC is designed to be adaptable, but that also comes with a problem: It makes it difficult to ensure everyone who says they are following the BWC really is. Or, in arms control treaty-speak: It has no legally binding verification regime.



The Chemical Weapons Convention is arguably narrower, banning specific agents. It also has an enforcement body that carries out inspections. Nuclear treaties between the US and Russia, [though they're almost all but officially dead](#), included robust data-sharing and inspection. "Verification is a pretty standard element of most disarmament conventions, and that's why people keep on coming back to the issue in the BWC," Feakes said.

The BWC has none of that. Some of it has to do with the unique nature of biological weapons, which *are* distinct from things like chemical agents or nukes. But that has left the BWC with a huge gap since its inception.

From left, Nikolai Lunkov, the Russian ambassador; David Ennals, the British minister for foreign and Commonwealth Affairs; and Ronald I. Spiers, minister at the American Embassy, signing the certificates of deposit for the Biological Weapons Convention at Lancaster House in London on March 26, 1975. Frank Barrett/Keystone/Hulton Archive/Getty Images

"The holy grail that we've struggled with with the Biological Weapons Convention is how do you verify that the countries that have signed up to the treaty are not making biological weapons?" said

Kenneth Ward, US special representative to the Biological Weapons Convention.



The closest thing that BWC has to a verification are Confidence Building Measures (CBMs), essentially a book report on a country's bio activities. Not every country participates, or makes the documents public, and there is no way to fact-check what any country says.

And even if there were, the BWC is currently ill-equipped for such a task. The annual budget for the BWC [is currently about \\$1.8 million](#), which in the past has come out to less than most McDonald's franchise restaurants, [according to one estimate in a 2020 book](#). About two-thirds of countries [pay less than \\$1,000 into the BWC, including about 50 that pay around \\$100](#). That is considerably less than the Organization for the Prohibition of Chemical Weapons (OPCW), which has an [estimated 2023 budget of more than \\$80 million](#) to implement the Chemical Weapons Convention.

The Implementation Support Unit (ISU) that oversees the BWC just had its staff grow by a quarter — from three to four people. Compare that, again, to the OPCW, [which has about 500 staff members](#). According to Feakes, what resources the ISU has mostly end up going toward the organizing and managing big meetings, like the Ninth Annual Review Conference. Even then, it's barely enough: By the Friday morning session of the first week of the Review Conference in Geneva last year, [the UN Web TV broadcast of the BWC negotiations had to be cut off because of cost concerns](#). If you can't keep the live feed running, good luck preventing the potential proliferation of biological weapons.

That means the actual implementation of the BWC looks something akin to matchmaking, where a state may ask for technical or assistance or training, and the ISU seeks out another country or partner that might have the ability to actually do it, because the ISU definitely doesn't. But trying to fit BWC into the mold of other disarmament treaties is a lot trickier than you might think, largely because of the dual-use nature of biology. A nuclear warhead or VX gas has one purpose: warfare. But something like anthrax can and has been used as a biological weapon, and a legitimate lab may need to have anthrax on hand to make a vaccine. The same equipment you might use to try to find a cure to a virus or disease is much the same equipment you'd need to replicate or manipulate a virus for a biological attack. Germs are self-replicating which means countries don't have to keep huge stockpiles of dangerous viruses. Life science itself is far more decentralized than nuclear research, for example. Labs are spread out, and with materials fairly accessible. [You can buy DNA online](#), and with [technologies like benchtop DNA synthesis](#), you can print DNA in your lab with a tool that's about the size of a microwave. There are far more people with expertise in the biological sciences, from geneticists to lab techs, around the world than there are nuclear scientists. A terror group getting ahold of weapons of mass destruction is always a risk, but the diffusion of biology means it's probably easier to weaponize a virus — and certainly harder to detect — than it is to make a nuke. And, of course, the BWC only deals with nation-states anyway.

"You don't want to create false confidence in a verification regime," Ward, of the US State Department, said. "You have to be clear: What can we verify? What can we not verify? And we're never going to be able to verify on a daily basis, is every biological facility in the world doing good things instead of bad things? It's impossible to know."

It's also not like anyone hasn't tried, either. Across decades, countries have attempted to figure out some way to create a verification mechanism. Perhaps the closest the BWC came was in 2001, but US opposition effectively sidelined efforts to create a more formal and transparent mechanism for verification for 20 years.

A lot has happened in those 20 years, including dramatic advances in life sciences — the mapping of the human genome, CRISPR gene-editing technology, mRNA vaccines, and more — which means the nature of biological threats is changing, too. Some verification is better than nothing, and almost certainly better than an absolute free-for-all — as the pandemic itself showed.

What is a bioweapon today — and tomorrow?

In a city, in one corner of the world, people start showing up to the hospital. They have some sort of respiratory illness, but it's not clear what. The cases range in their severity: It is often fatal in older or immunocompromised people; for others, a mild to severe illness. Others still are asymptomatic, a virus in their bodies, spreading without any outward sign.

From there, the virus spreads, and spreads, and spreads. It shuts down economies, upends politics. [Millions die; millions more get sick](#). A vaccine is developed quickly, so are treatments, but none are a perfect shield, especially as the virus, now out in the world, changes.

This is not a bioweapon but the Covid-19 pandemic. (Which, it's worth emphasizing, is [not a bioweapon](#), even if debates on its origins continue.) But what Covid-19 did do was show just how disruptive an entirely unintentional biological event can be. A deliberate one, or even the accidental release of a virus from a legitimate lab, could be far worse. (A [2018 pandemic tabletop exercise](#) by the Johns Hopkins Center for Health Security modeled for a release of an engineered bioweapon and [ended with 150 million people dead](#).) It's still not easy to create such a deadly bioweapon, "but barriers are coming down, and risks are increasing," Lentzos said.

Barriers are coming down because of the expansion and advancement in the life sciences. There is gene editing, which has been made easier and more powerful [with tools like CRISPR](#). A bad actor could use it



to make a virus more transmissible, or more fatal, or more resistant to treatment. There is synthetic biology, which enables scientists to manipulate or even design entirely new organisms — [maybe tailor-made to infect livestock, or a country's wheat supply, or even a specific person](#). Then there are the computational tools, like the artificial intelligence used by Ekins where huge databases and the power of computing [let scientists rapidly sift through potential pathogens much faster](#), or find new combinations of molecules to create entirely novel viruses.

Scientists also better understand how the body works; what regulates our hormones, immune systems, and neurotransmitters. Many experts I spoke to talked about bioregulators — systems that regulate our normal bodily functions — as a possible tool of manipulation. This knowledge has plenty of benign applications, and potentially revolutionary ones, but could also be [applied for military or political manipulation](#): speeding up someone's heart rate, or causing organ failure, or even altering moods, so all of a sudden an even-keeled president is an erratic one.

There isn't really a question as to whether such an attack would fit under the BWC. Even though we were decades away from decoding the human genome when the convention was signed, its Article 1 prohibition against any deliberate use of biological material or a toxin fits under the definition.

But the larger question is whether the spread and development of these technologies incentivizes their malign use. That depends a lot on the political environment — on why a country would take the risk of breaking international law and norms. In a world where other disarmament treaties are falling away, great power competition is rising, and hybrid threats from cyber to information warfare offer the plausible deniability some governments seek, countries may start to see it as a risk worth taking.

Russia's war in Ukraine is an example of how these dynamics are playing out. [Moscow has very deliberately spread misinformation](#) — amplified by everyone from [the Chinese government](#) to [right-wingers in the US](#) — alleging that the US has been funding bioweapons labs in Ukraine, including claiming that Washington and Kyiv have collaborated on an infection that is targeting certain groups, delivered by bats and birds. The claims have been disproven, and [rejected by the United Nations Security Council](#), but some experts and officials fear it could serve as the basis for a false flag attack.

Biological attacks can also be difficult to verify because pathogens are naturally occurring, and even if scientists detect a new one, it's difficult — if not impossible — to know if it's something that has been deliberately created or something that emerged accidentally from nature or a lab. And given what Covid-19 demonstrated about the cracks in our defense against biological threats — and how little has been done to fix them over the past few years — a future bioweapon might “prey upon those existing vulnerabilities that haven't been addressed,” said Saskia Popescu, a biodefense expert at George Washington University.

Decentralization further complicates matters, especially as the bioeconomy and biomanufacturing expands. The BWC is focused on nation-states, but this diffusion and access — again, you can buy DNA online and have it shipped to your lab — opens up opportunities for bad actors. “It's easier for more and more people with less and less skills coming in the door to either make a pathogen from scratch or tinker with it to make it more dangerous,” said Yassif. “And that's not contained within a few high-level labs, in a world-class lab with lots of resources. It's increasingly democratized and distributed.”

Together, this creates a dangerous dynamic: The international bioweapons regime is basically standing still, as technology and geopolitics race ahead of it.

Can the BWC keep up?

All of this tumult spilled over at the Palais des Nations, United Nations headquarters in Geneva, this past December. There, states-parties to the Biological Weapons Convention gathered for the Ninth Annual Review Conference, or “RevCon,” as it's known. These happen every five years, although the Covid-19 pandemic had delayed the scheduled meeting. It would ultimately complicate this one as well, as diplomats and delegates started testing positive. By week's end, the officials presiding over the conference did so in KN95 masks — an outcome that felt a little too on-the-nose for a conference designed to shore up protections against biological threats.

In the Palais des Nations, a strange combination existed of low expectations and high hopes. The low expectations were mainly a hangover from the ghosts of BWC RevCon past, where states struggled to reach consensus. The war in Ukraine had also increased tensions, with Russia, in particular, playing spoiler because no one would give credence to their Ukraine bioweapons claims.

Yet many officials and experts hoped the disruptive power of Covid-19 would focus minds, providing a reminder of the threat of any kind of biological risks. New initiatives buzzed about, including [ethical guidelines for scientists](#) working in technologies that could be manipulated or misused. The Tianjin Biosecurity Guidelines for Codes of Conduct for Scientists included 10 principles for those practicing in the life sciences, an effort to raise awareness and accountability to mitigate biorisks. China, in particular, [had championed these guidelines](#), which lots of other countries supported, too, including the United States. There were also discussions about creating a scientific or technical body, one that could review and advise on the latest biological and life science developments.





Nurses Albert Legayada (L) and Fred Bueno care for a Covid-19 patient in the ICU at Sharp Grossmont Hospital amid the coronavirus pandemic on May 6, 2020, in La Mesa, California *Mario Tama/Getty Images*

And, at long last, the United States cracked open the door to verification discussions. Ward said it was partly an acknowledgment from the Biden administration of the disruptive nature of Covid-19, but it was also an effort to move past two decades of ill will.

But that is always a tough task within international forums. The reality within the Palais was both slightly more boring and slightly more complicated. Politics played a big role in this. Russia, and some other familiar faces, including Iran used the forum to air their particular grievances — Moscow on Ukraine, Tehran on sanctions. The BWC is built on consensus — all the states-parties have to agree — so just one country can spoil the mood, and the progress.

Most of the intense discussions happened behind closed doors; out in the brightly lit conference room, the delegations discussed, line by line, exactly what should be in the RevCon text, in the most passive-aggressive public edit of all time. Countries went back and forth on word selection, striking this or seeking to add that — respectively, of course — until slowly all the add-ons and enhancements to the BWC fell away.

But, in the end, there was some progress, or as the line went: “[modest success](#).” The hopes for adopting those ethical guidelines for scientists or even bare-bones verification measures failed. But the states-parties at the BWC agreed to establish a working group — meeting once a year, for about two weeks or so — to examine a long list of priorities, like advances in science and technology, and a possible road map for bioweapons verification.

“Issues like verification, it’s now formally in the agenda or the work plan of the intersessional program, the first time in two decades,” said Izumi Nakamitsu, the United Nations high representative for disarmament affairs.

This is what counts for progress in the world of bioweapons governance: no substantive changes yet, but at least everyone is talking. The group will meet this August for the first time, after setting its agenda last month, with the goal of transforming the BWC by the time of the next RevCon about five years from now. Which is better than nothing when it comes to weapons of mass destruction.



In the meantime, the threats to the BWC are accelerating. The world is a more dangerous and tense place. Disinformation around bioweapons is also eroding the taboo against the use. This includes Russia's playbook of continued accusations about bioweapons in Ukraine and elsewhere. But a top Republican recently claimed, with zero evidence, that the Chinese spy balloon shot down over the Atlantic Ocean in February [was equipped with bioweapons](#).

And maybe it doesn't sound so crazy, as science speeds ahead. ChatGPT has amplified concerns around artificial intelligence and what it is capable of. Ekins's software designed VX and thousands of other molecules in six hours, after all. "We're just a small piece of the pie," Ekins said, of the VX experiment. "But what else is happening out there?"

Jen Kirby is a senior foreign and national security reporter at Vox, where she covers global stability. She joined Vox after working as a homepage and assistant editor at **New York magazine**. She was part of the team that won the 2015 George Polk Award for Magazine Reporting for the New York cover story: "**Cosby: The Women**." Kirby attended journalism school at Northwestern University and received her undergraduate degree from Georgetown University, where she studied international politics and security. She is based in Brooklyn, New York.

'Snake Oil' Fake Cures for Long COVID Leave Patients at Risk

Source: <https://www.medscape.com/viewarticle/991367>

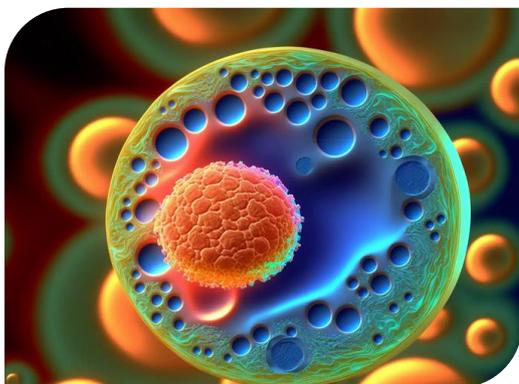
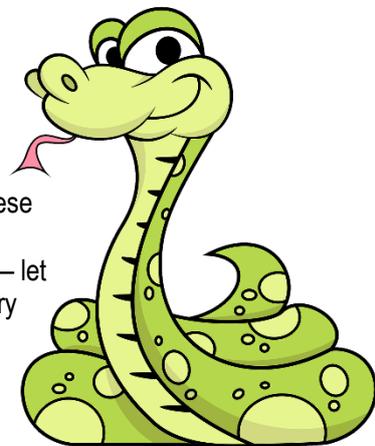
Apr 28 – From fad diets and vitamins to "blood washing" and stem cell therapy, long COVID patients are seeking out experimental therapies in a desperate bid to find hope and relief from debilitating symptoms. But doctors worry about the potential harm — both physical and financial — some of these unproven and overhyped treatments could cause.

More than 3 years after the pandemic hit, there are still no established, effective interventions or tools — let alone a cure — for patients grappling with post-COVID symptoms. That leaves many willing to try unconventional treatments, including those being offered without close medical oversight.

"Because a lot of our patients have had their symptoms for such a long time and they've suffered for such a long time, they seem to be a little bit more at risk for snake oil salesmen from the internet," said Emory University School of Medicine's Alexander Truong, MD, a pulmonologist who also runs a long COVID clinic in Atlanta. "I can't blame them."

Many patients deal with brain fog, extreme fatigue, and severe headaches — symptoms that may severely affect their quality of life and can render them unable to work full-time. That level of misery and hardship can be difficult to measure, but Diana Güthe, founder of Survivor Corps, noted that an informal Facebook poll the COVID-19 support group took of its members in 2022 found that [nearly half the respondents](#) reported thinking about [suicide](#).

"That's where people are in terms of lack of hope," she said. Recently married, her husband's first wife [died by suicide in 2021](#) after she developed severe post-COVID issues following an asymptomatic COVID-19 infection, Güthe said. She herself, now fully recovered, also dealt with "excruciating" headaches for a year and deep inner [ear pain](#).



'Blood Washing' and Stem Cell Therapies

Doctors who run post-COVID clinics are regularly asked about unproven treatments their patients hear or read about from support groups. These groups have been a lifeline for many, but the therapies some promote can also [come with risks](#). Some treatment claims — like the misuse of antiparasitic drug [ivermectin](#) — [persistently make the rounds](#), experts say, despite having been associated with illness, death, and extensively debunked.

Other inquiries stem from for-profit companies pitching long COVID promises online.

"I get very nervous when people come to me saying, 'Oh, I'm on Facebook, I'm getting these advertisements from this company that wants my blood to tell me if I have long COVID,'" said Michael Peluso, MD, an infectious diseases doctor and

assistant professor of medicine at the University of California, San Francisco.

One costly experimental treatment under scrutiny is "blood washing," or apheresis, a well-established blood filtering procedure used for a range of blood disorders and in the collection of blood donations. Some



researchers believe apheresis could benefit long COVID patients by getting rid of [tiny microclots](#) that may be clogging delicate capillaries and cutting off oxygen to tissue. But there is [no published data](#) from randomized, controlled clinical trials documenting its effectiveness. Critics caution that it remains unclear how these clots are formed and whether they are a marker or the actual cause of disease. An [investigation in 2022](#) by the journal *The BMJ*, for example, found that patients were traveling to private clinics in Europe for the invasive procedure and being prescribed anti-clotting medication without sufficient follow-up care. One patient spent nearly all her savings, yet saw no improvement. The patient consent form from at least one clinic was also considered "inadequate" according to lawyers and healthcare providers. The medical journal's editor in chief [called apheresis](#) a "miracle cure sold on a hypothesis of hope." Doctors say other expensive experimental treatments, such as stem cell therapy, are also being sold on hope. "Stem cells in general have been seen as this cure and hope for all these different types of diagnoses — from [spinal cord injury](#), strokes, brain injuries, to now, long COVID," said Monica Verduzco-Gutierrez, MD, a physical medicine and rehabilitation doctor who specializes in brain injury medicine and now runs a post-COVID recovery program and clinic in San Antonio, TX. "But we just don't have the trials yet to say, 'Oh yes, stem cells are going to definitely help.'" Some clinics may claim they are legitimate, make big promises without presenting clinical evidence, or base them on poorly designed studies or extremely small sample sizes, or ask patients to pay to participate in a clinical trial, said Verduzco-Gutierrez. Thousands of clinics in the US market their stem cell therapies directly to consumers, according to research by Leigh Turner, PhD, a professor of health, society, and behavior at University of California, Irvine. But many of the products are unlicensed, unproven, and have caused serious harm, he reported in at least two journal papers published in 2021, [Cell Stem Cell](#) and [Stem Cell Reports](#). The FDA [issued a warning in 2019](#) against unscrupulous clinics and the dangers of unproven stem cell treatments. "The search for cell-based COVID-19 treatments has also been fraught with hyperbolic claims; flouting of crucial regulatory, scientific, and ethical norms; and distorted communication of research findings," Turner wrote. Some therapeutic contenders may have undergone test pilot studies, proof-of-concept trials, or small studies, but need further testing with a bigger population group, which may not always be possible. One small, [randomized, controlled study](#) suggested that [hyperbaric oxygen therapy](#) improved some long COVID symptoms, for example, but the expensive treatment is extremely difficult to study on a large scale, said Zachary Schwartz, MD, head of the Post-COVID-19 Recovery Clinic at Vancouver General Hospital in Canada. A hyperbaric oxygen chamber is used to treat the bends in scuba diving, [carbon monoxide poisoning](#), or people with severe wounds. "It's not a treatment protocol that is very manageable at a scale that we need for the amount of individuals suffering from post COVID-19 syndrome, such as putting them into a hyperbaric chamber every day for 30 days," Schwartz said, adding that it is also unclear if these improvements even last.

Unregulated Products and Financial Risks

Other noninvasive treatments are no less expensive and potentially risky, doctors said. Health supplements, for example, are [not regulated by the FDA like drugs](#), making the purity and safety of the ingredients and their effectiveness difficult to measure. If you take supplements, you should always consult your doctor and pharmacist to ensure there are also no dangerous interactions with any regular medication, they advise. Beyond the obvious physical health risks involved, doctors also worry about predatory marketing and the financial impact on vulnerable patients. "It's not just the medical and health toxicity, but also the potential financial toxicity," said Linda Geng, MD, PhD, an assistant professor of medicine at Stanford University and co-director of the school's Post-Acute COVID-19 Syndrome Clinic. Hyperbaric oxygen therapy through alternative healthcare providers may cost as much as \$100 or \$200 a session, some estimate. A home medical device may cost \$1,000, while supplements can quickly add up to hundreds or thousands of dollars. "I've had patients who spent thousands and thousands of dollars [for] unfounded hopes," said Geng.

"Some of them are already struggling because they can't work or have to reduce work and they can't make ends meet.... I have yet to find or hear of anything that has really helped them."

To be sure, post-COVID clinics do explore different strategies that have yet to be fully studied, doctors say. The range of symptoms patients experience often bear similarities to known conditions with existing therapies and drugs, but doctors say repurposing them should be done under medical supervision and with full transparency.

If It's Too Good to Be True

The extent to which patients are seeking alternative treatments speaks to the frustration they feel about the lack of urgency and progress being made in clinical research of long COVID treatments, advocates say. "There are very, very, very few long COVID therapeutic trials and people have really been dragging their feet," said University of California-San Francisco's Peluso. "It's been very frustrating. That's why we're in this situation."

The National Institutes of Health received \$1.15 billion in long COVID funding in February 2021, but critics say progress in recruiting participants and launching clinical trials has been slow, with no clear leadership, coordination, transparency, and communication from the agency or between clinics. "When we talk about



focusing on these scams, I think it's a red herring. It's taking the attention away from the real problem," said Survivor Corps' Güthe, who has been critical of the NIH. Until greater progress is made, long COVID patients are likely to continue trying experimental or unproven therapies to find some relief. Always speak with your doctor or specialist, experts advise. "What I tell people is that if it sounds too good to be true, it probably is," said Schwartz.

Biological Warfare – Waged on America By Americans

Source: <https://andmagazine.substack.com/p/biological-warfare-waged-on-america>



May 01 - Joe Biden and his mandarins remain obsessed with COVID-19. They continue to talk in terms of possible future lockdowns. They remain fixated on the development of vaccines and forcing Americans to take them. Meanwhile, Biden and his minions work overtime to flood the nation with illegal immigrants from all over the planet who come here unvaccinated and without any meaningful medical screening. Every disease on the planet now has visa-free entrance to your country.

New York City's Health Commissioner announced last week that the flood of illegal immigrants from the southern border is carrying with it **a whole raft of contagious diseases previously largely unknown in the modern United States**. These include **tuberculosis and polio**.



These include **tuberculosis and polio**.

In a letter to physicians and health-care administrators citywide, Commissioner Ashwin Vasan explained, "Many people who recently arrived in NYC have lived in or traveled through countries with high rates of TB." While TB (tuberculosis) is treatable with antibiotics even if detected it can take up to nine months of treatment to cure. It is airborne and can be spread like the flu or a cold. If you are on a subway car in New York with someone who has TB you are likely to get it too. New York City's TB rate is now 6.1 cases per 100,000. That is more than double the national rate. Statistics show that almost 90% of the TB cases in New York are in people born outside the United States. That same statistic applies generally nationwide. Every neighborhood in the city of New York now has at least one case of TB. If you apply for a visa to enter the United States lawfully you have to go through a health screening. If you blow off the formalities and just waded the Rio Grande you can skip all that. Florida has seen a 21% increase in TB since 2020. The TB rate in Texas border counties is triple the national average.

Polio is potentially an even bigger threat. It has long been considered eradicated in the United States. Last summer **New York City saw the first confirmed case in thirty years**. New York City's Health Commissioner Vasan warns that only 50% of the migrants arriving in New York City are vaccinated against polio. Even worse those that are vaccinated often were treated with a type of vaccine using live virus that causes them to actually spread the disease to others. They are bringing the disease with them when they come.

EDITOR'S COMMENT: This is very interesting since I have not, so far, read something related for the millions of illegal immigrants flooding Greece and Italy. It seems we love bad surprises, and this is why we do not care! Same for Covid-19 vaccination statistics for illegal immigrants in hot spots.

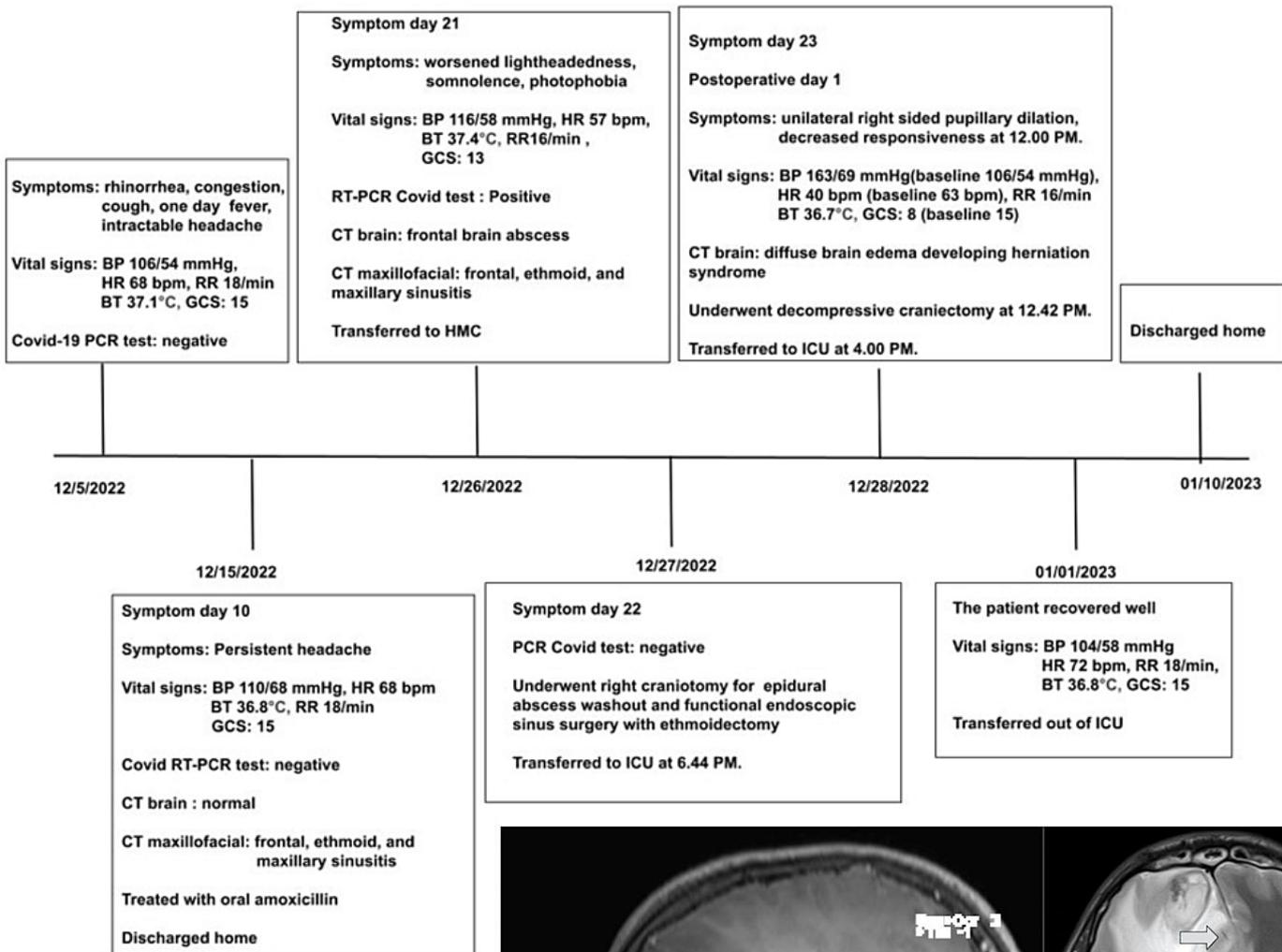
Bacterial Brain Abscess and Life-Threatening Intracranial Hypertension Requiring Emergent Decompressive Craniectomy After SARS-CoV-2 Infection in a Healthy Adolescent

By Thitikan Kunapaisal, Shuhong Guo, Courtney Gomez, et al.

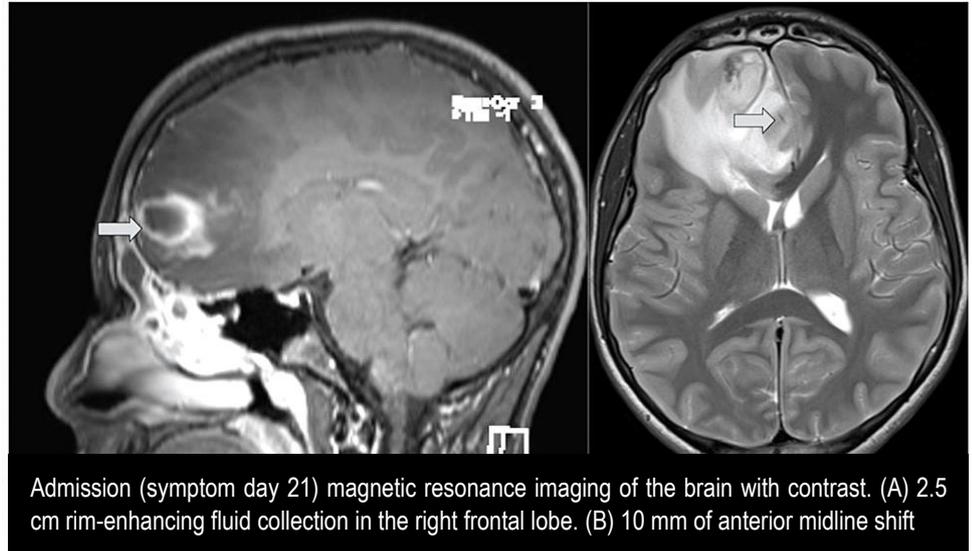
Source: <https://www.cureus.com/articles/139019-bacterial-brain-abscess-and-life-threatening-intracranial-hypertension-requiring-emergent-decompressive-craniectomy-after-sars-cov-2-infection-in-a-healthy-adolescent#!/>

Mar 16 – Acute coronavirus 2 (SARS-CoV-2) infection usually results in mild symptoms, but secondary infections after SARS-CoV-2 infection can occur, particularly with comorbid conditions. We present the clinical course of a healthy adolescent with a brain abscess and life-threatening intracranial hypertension





requiring emergent decompressive craniectomy after a SARS-CoV-2 infection. A 13-year-old healthy immunized male presented with invasive frontal, ethmoid, and maxillary sinusitis and symptoms of lethargy, nausea, headache, and photophobia due to a frontal brain abscess diagnosed three weeks after symptoms and 11 days of oral amoxicillin treatment. Coronavirus disease 2019 (COVID-19) reverse transcription-polymerase chain reaction (RT-PCR) was negative twice but then positive on amoxicillin day 11 (symptom day 21), when magnetic resonance imaging revealed a 2.5-cm right frontal brain abscess with a 10-mm midline shift. The patient underwent emergent craniotomy for right frontal epidural abscess washout and functional endoscopic sinus surgery with ethmoidectomy. On a postoperative day one, his neurological condition showed new right-sided pupillary dilation and decreased responsiveness. His vital signs showed bradycardia and systolic hypertension. He underwent an emergent decompressive craniectomy for signs of brain herniation. Bacterial PCR was positive for *Streptococcus intermedius*, for which he received intravenous vancomycin and metronidazole. He was discharged home on hospital day 14 without neurological sequelae and future bone flap replacement. Our case highlights the importance of timely recognition and treatment of brain abscess and brain herniation in patients with neurological symptoms after SARS-CoV-2 infection, even in otherwise healthy patients.



The False Messaging on Vaccines Given to Pregnant Women

By David Bell

Source: <https://brownstone.org/articles/the-false-messaging-on-vaccines-given-to-pregnant-women/>

Apr 19 – The mRNA vaccines were released globally in early 2021 with the slogan ‘safe and effective.’ Unusually for a new class of medicine, they were soon recommended by public health authorities for pregnant women. By late 2021, working-age women, including those who were pregnant, were being thrown out of employment for not agreeing to be injected. Those who took the mRNA vaccines did so based on trust in health authorities – the assumption being that they would not have been approved if the evidence was not absolutely clear. The role of regulatory agencies was to protect the public and, therefore, if they were approved, the “vaccines” were safe. Recently, a lengthy vaccine evaluation report sponsored by Pfizer and submitted to the Australian regulator, the Therapeutic Goods Administration (TGA) dated January 2021 was [released](#) under a Freedom of Information request. The report contains significant new information that had been suppressed by the TGA and by Pfizer itself. Much of this relates directly to the issue of safety in pregnancy, and impacts on the fertility of women of child-bearing age. The whole report is important, but four key data points stand out;

- The rapid decline in antibody and T cells in monkeys following second dose,
- Biodistribution studies (previously released in 2021 through an FOI request in Japan)
- Data on the impact of fertility outcomes for rats.
- Data on fetal abnormalities in rats.

We focus on the last three items as, for the first point, it is enough to quote the report itself “Antibodies and T cells in monkeys declined quickly over 5 weeks after the second dose of BNT162b2 (V9), raising concerns over long term immunity...”

This point indicates that the regulators should have anticipated the rapid decline in efficacy and must have known at the outset that the initial two-dose “course” was unlikely to confer lasting immunity and would, therefore, require multiple repeat doses. This expectation of failure was recently highlighted by Dr Anthony Fauci, former director at the US NIH.

The three remaining items should be a major cause for alarm with the pharmaceutical regulatory system. The first, as [revealed](#) in 2021, involved biodistribution studies of the lipid nanoparticle carrier in rats, using a luciferase enzyme to substitute for the mRNA vaccine.

The study demonstrated that the vaccine will travel throughout the body after injection, and is found not only at the injection site, but in all organs tested, with high concentration in the ovaries, liver, adrenal glands, and spleen. Authorities who assured vaccinated people in early 2021 that the vaccine stays in the arm were, as we have known for two years, lying.

Lipid concentration per gram, recalculated as percentage of injection site.

ORGAN	48 HOURS μg lipid equiv/g	TOTAL	CONC VS INJECTION SITE
ADRENAL	18.21	164.9	11.04%
MARROW	3.77	164.9	2.29%
SITE	164.9	164.9	100.00%
LIVER	24.29	164.9	14.73%
OVARIES	12.26	164.9	7.43%
SPLEEN	23.35	164.9	14.16%

In terms of the impact on fertility and fetal abnormalities, the report includes a study of 44 rats and describes two main metrics, the pre-implantation loss rate and the number of abnormalities per fetus (also expressed per litter). In both cases the metrics were significantly higher for vaccinated rats than for unvaccinated rats. Roughly speaking, the pre-implantation loss ratio compares the estimated number of fertilised ova and the ova implanted in the uterus. The table below is taken from the report itself and clearly shows the loss rate for vaccinated (BNT162b2) is more than double the unvaccinated control group. In a case control study, a doubling of pregnancy loss in the intervention group would represent a serious safety signal. Rather than take this seriously, the authors of the report then compared the outcomes to historical data on other rat populations; 27 studies of 568 rats, and ignored the outcome because other populations



had recorded higher overall losses; this range is shown in the right hand column as 2.6 percent to 13.8 percent. This analysis is alarming as remaining below the highest previously recorded pregnancy loss levels in populations elsewhere is not a safe outcome when the intervention is also associated with double the harm of the control group.

Finding	Group				Historical control data range (WI(Han))
	Control	BNT162b1	BNT162b2	BNT162b3	
Pre-implantation loss: (mean %)	4.1	4.9	9.8*	8.0	2.6 – 13.8*

* P<0.05 (Dunnett non-parametric 2 sided test); a: Historical data based on 27 studies including 568 pregnant rats (GD20: 562), year not specified.

A similar pattern is observed for fetal malformations with higher abnormality rate in each of the 12 categories studied. Of the 11 categories where Pfizer confirmed the data is correct, there are only 2 total abnormalities in the control group, versus **28 with the mRNA vaccine (BNT162b2)**. In the category which Pfizer labeled as unreliable (supernumerary lumbar ribs), there were 3 abnormalities in the control group and 12 in the vaccinated group.

As with the increased pregnancy losses, Pfizer simply ignored the trend and compared the results with historical data from other rat populations. This is very significant as it is seen across every malformation category. The case control nature of the study design is again ignored, in order to apparently hide the negative outcomes demonstrated.

These data indicate that there is NO basis for saying the vaccine is safe in pregnancy. Concentration of LNPs in ovaries, a doubled pregnancy loss rate, and raised fetal abnormality rate across all measured categories indicates that designating a safe-in-pregnancy label (B1 category in Australia) was contrary to available evidence. The data implies that not only was the Government's "safe and effective" sloganeering not accurate, it was totally misleading with respect to the safety data available.

Known unknowns and missing data:

Despite the negative nature of these outcomes, the classification of this medicine as a vaccine appears to have precluded further animal trials. Historically, new medicines, especially in classes never used in humans before, would require a very rigorous assessment. Vaccines, however, have a lower burden of proof requirement than ordinary medicines. By classifying mRNA injections as "vaccines," this ensured regulatory approval with significantly less stringent safety requirements, as the TGA itself notes.

In fact, mRNA gene therapies function more like medicines than vaccines in that they modify the internal functioning of cells, rather than stimulating an immune response to presence of an antigen. Labelling these gene therapy products as vaccines means that, as far as we are aware, even today no genotoxicity or carcinogenicity studies have been carried out.

This report, which was only released after a FOI request, is extremely disturbing as it shows that authorities knew of major risks with mRNA Covid-19 vaccination while simultaneously assuring populations that it was safe. The fact that mainstream media has (as far as we are aware) completely ignored the newly released data should reinforce the need for caution when listening to the advice of public health messaging regarding Covid-19 vaccination.

Firstly, it is clear that regulators, drug companies and the government would have known that vaccine-induced immunity tails off very rapidly with this being observed in real world data with efficacy against infection falling to zero. Accordingly, the single point in time figures of 95 percent and 62 percent efficacy against cases [quoted](#) for Pfizer and ChAdOx1 ([AstraZeneca](#)) respectively meant almost nothing since a rapid decline was to be expected.

Similarly, the concept of a two-dose "course" was inaccurate as endless boosters would likely have been required given the rapid decline in antibodies and T-cells observed in the monkeys.

Most importantly, the data does not in any way support the "safe" conclusion with respect to pregnancy; a conclusion of dangerous would be more accurate. The assurances of safety were, therefore, completely misleading given the data disclosures in the recent freedom of information release.

Regulatory authorities knew that animal studies showed major red flags regarding both pregnancy loss and fetal abnormalities, consistent with the systemic distribution of the mRNA they had been hiding from the public.

Even in March 2023, it is impossible to give these assurances, given the fact that important studies have not, to the best of our knowledge, been done.

Pfizer elected not to follow up the vast majority of pregnancies in the original human trials, despite high miscarriage rates in the minority they did follow. Given all of the problems with efficacy and safety, the administration of these products to women of childbearing age, and administration to healthy pregnant women is high-risk and not justified.



David Bell is Senior Scholar at Brownstone Institute, is a public health physician and biotech consultant in global health. He is a former medical officer and scientist at the World Health Organization (WHO), Programme Head for malaria and febrile diseases at the Foundation for Innovative New Diagnostics (FIND) in Geneva, Switzerland, and Director of Global Health Technologies at Intellectual Ventures Global Good Fund in Bellevue, WA, USA. Assisting in co-authorship for this essay is Alex Kriel, a physicist and was one of the first people to highlight the flawed nature of the Imperial COVID model, and he is a founder of the [Thinking Coalition](#) which comprises a group of citizens who are concerned about Government overreach.

Improved understanding of biorisk for research involving microbial modification using annotated sequences of concern

By Gene D. Godbold, F. Curtis Hewitt, Anthony D. Kappell, et al.

Front. Bioeng. Biotechnol., 25 April 2023; *Sec. Biosafety and Biosecurity* / Volume 11 - 2023

Source: <https://www.frontiersin.org/articles/10.3389/fbioe.2023.1124100/full>

Regulation of research on microbes that cause disease in humans has historically been focused on taxonomic lists of ‘bad bugs’. However, given our increased knowledge of these pathogens through inexpensive genome sequencing, 5 decades of research in microbial pathogenesis, and the burgeoning capacity of synthetic biologists, the limitations of this approach are apparent. With heightened scientific and public attention focused on biosafety and biosecurity, and an ongoing review by US authorities of dual-use research oversight, this article proposes the incorporation of sequences of concern (SoCs) into the biorisk management regime governing genetic engineering of pathogens. SoCs enable pathogenesis in all microbes infecting hosts that are ‘of concern’ to human civilization. Here we review the functions of SoCs (FunSoCs) and discuss how they might bring clarity to potentially problematic research outcomes involving infectious agents. We believe that annotation of SoCs with FunSoCs has the potential to improve the likelihood that dual use research of concern is recognized by both scientists and regulators before it occurs.

‘Remarkable’ AI tool designs mRNA vaccines that are more potent and stable

Source: <https://www.nature.com/articles/d41586-023-01487-y>

May 02 – An artificial intelligence (AI) tool that optimizes the gene sequences found in mRNA vaccines could help to create jabs with greater potency and stability that could be deployed across the globe.

Developed by scientists at the California division of Baidu Research, an AI company based in Beijing, the software borrows techniques from computational linguistics to design mRNA sequences with shapes and structures more intricate than those used in current vaccines. This enables the genetic material to persist for longer than usual. The more stable the mRNA that’s delivered to a person’s cells, the more antigens are produced by the protein-making machinery in that person’s body. This, in turn, leads to a rise in protective antibodies, theoretically leaving immunized individuals better equipped to fend off infectious diseases.

What’s more, the enhanced structural complexity of the mRNA offers improved protection against vaccine degradation. During the COVID-19 pandemic, mRNA-based shots against the coronavirus SARS-CoV-2 [famously had to be transported and kept at temperatures below –15 °C to maintain their stability](#). This limited their distribution in resource-poor regions of the world that lack access to ultracold storage facilities. A more resilient product, optimized by AI, could eliminate the need for cold-chain equipment to handle such jabs.

The new methodology is “remarkable”, says Dave Mauger, a computational RNA biologist who previously worked at Moderna in Cambridge, Massachusetts, a maker of mRNA vaccines. “The computational efficiency is really impressive and more sophisticated than anything that has come before.”

Linear thinking

Vaccine developers already commonly adjust mRNA sequences to align with cells’ preferences for certain genetic instructions over others. This process, known as codon optimization, leads to more-efficient protein production. The Baidu tool takes this a step further, ensuring that the mRNA — usually a single-stranded molecule — loops back on itself to create double-stranded segments that are more rigid (see ‘Design optimization’).

Known as [LinearDesign](#), the tool takes just minutes to run on a desktop computer. In validation tests, it has yielded vaccines that, when evaluated in mice, triggered antibody responses up to 128 times greater

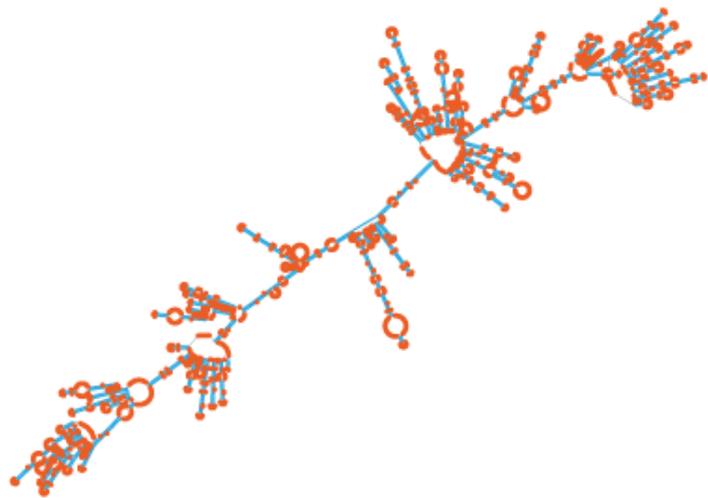


than those mounted after immunization with more conventional, codon-optimized vaccines. The algorithm also helped to extend the shelf stability of vaccine designs up to sixfold in standard test-tube assays performed at body temperature.

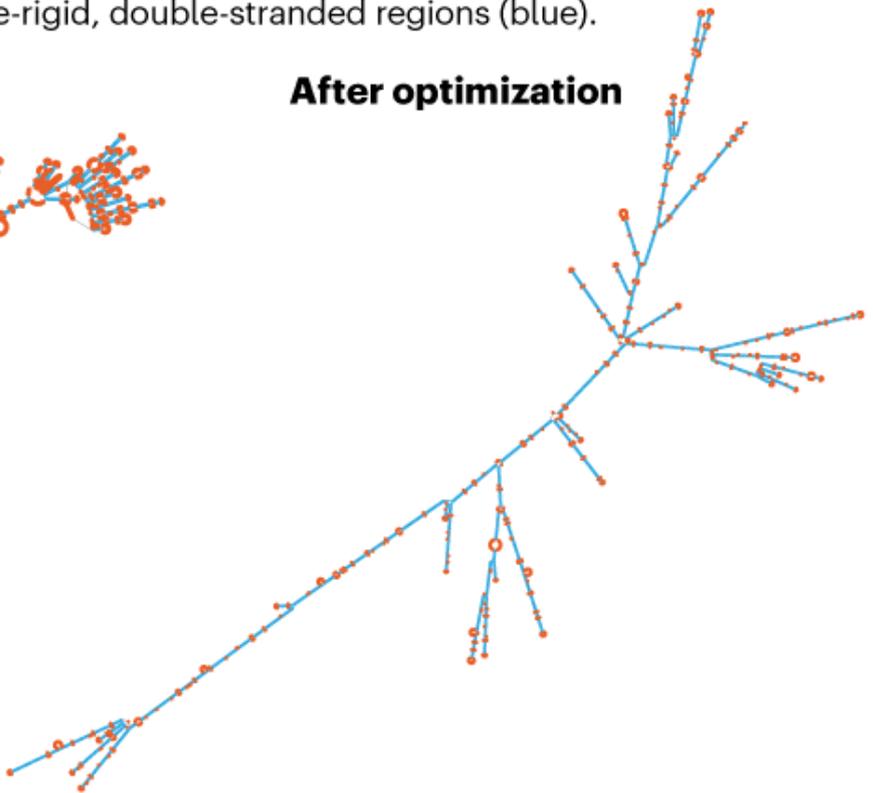
DESIGN OPTIMIZATION

An AI tool developed by the California division of Baidu Research can create mRNA sequences for vaccines that are more stable than usual and therefore can elicit a stronger immune response. It starts with a sequence full of floppy loops (orange) and, after about 11 minutes, outputs one in which the mRNA folds onto itself to form many more-rigid, double-stranded regions (blue).

Before optimization



After optimization



©nature

“It’s a tremendous improvement,” says Yujian Zhang, former head of mRNA technology at StemiRNA Therapeutics in Shanghai, China, who led the experimental-validation studies.

So far, Zhang and his colleagues have tested LinearDesign-enhanced vaccines against only COVID-19 and shingles in mice. But the technique should prove useful when designing mRNA vaccines against any disease, says Liang Huang, a former Baidu scientist who spearheaded the tool’s creation. It should also help in mRNA-based therapeutics, says Huang, who is now a computational biologist at Oregon State University in Corvallis.

The researchers reported their findings on 2 May in *Nature*¹.

Optimal solutions

Already, the tool has been used to optimize at least one authorized vaccine: a COVID-19 shot from StemiRNA, called SW-BIC-213, that [won approval for emergency use in Laos late last year](#). Under a licensing agreement established in 2021, the French pharma giant Sanofi has been using LinearDesign in its own experimental mRNA products, too.

Executives at both companies stress that many design features factor into the performance of their vaccine candidates. But LinearDesign is “certainly one type of algorithm that can help with this”, says Sanofi’s Frank DeRosa, head of research and biomarkers at the company’s mRNA Center of Excellence.

Another was reported last year. A team led by Rhiju Das, a computational biologist at Stanford School of Medicine in California, demonstrated that even greater protein expression can be eked out of mRNA — in



cultured human cells at least — if certain loop patterns are taken out of their strands, even when such changes loosen the overall rigidity of the molecule².

That suggests that alternative algorithms might be preferable, says theoretical chemist Hannah Wayment-Steele, a former member of Das's team who is now at Brandeis University in Waltham, Massachusetts. Or, it suggests that manual fine-tuning of LinearDesign-optimized mRNA could lead to even better vaccine sequences.

But according to David Mathews, a computational RNA biologist at the University of Rochester Medical Center in New York, LinearDesign can do the bulk of the heavy lifting. "It gets people in the right ballpark to start doing any optimization," he says. Mathews helped develop the algorithm and is a co-founder, along with Huang, of Coderna.ai, a start-up based in Sunnyvale, California, that is developing the software further. Their first task has been updating the platform to account for the types of chemical modification found in most approved and experimental mRNA vaccines; LinearDesign, in its current form, is based on [an unmodified mRNA platform that has fallen out of favour among most vaccine developers](#).

A structured approach

But mouse studies and cell experiments are one thing. Human trials are another. Given that the immune system has evolved to recognize certain RNA structures as foreign — especially the twisted ladder shapes within many viruses that encode their genomes as double-stranded RNA — some researchers worry that an optimization algorithm such as LinearDesign could end up creating vaccine sequences that spur harmful immune reactions in people.

"That's kind of a liability," says Anna Blakney, an RNA bioengineer at the University of British Columbia in Vancouver, Canada, who was not involved in the study.

Early results from human clinical trials involving StemiRNA's SW-BIC-213 suggest the extra structure is not a problem, however. In small booster trials reported so far, the shot's side effects have proved no worse than those reported with other mRNA-based COVID-19 vaccines³. But as Blakney points out: "We'll learn more about that in the coming years."

WHO says Covid-19 is no longer a global health emergency

Source: <https://edition.cnn.com/2023/05/05/health/who-ends-covid-health-emergency/index.html>

May 05 – Covid-19 is no longer a global health emergency, the World Health Organization said on Friday.

WHO's International Health Regulations Emergency Committee discussed the pandemic on Thursday at its 15th meeting on Covid-19, and WHO Director-General Tedros Adhanom Ghebreyesus concurred that the public health emergency of international concern, or PHEIC, declaration [should end](#).

"For more than a year the pandemic has been on a downward trend," Tedros said at a news conference Friday.

"This trend has allowed most countries to return to life as we knew it before Covid-19," Tedros said. "Yesterday, the emergency committee met for the 15th time and recommended to me that I declare an end to the public health emergency of international concern. I have accepted that advice."

The organization declared the coronavirus outbreak to be a [public health emergency of international concern](#) in January 2020, about six weeks before characterizing it as a pandemic.

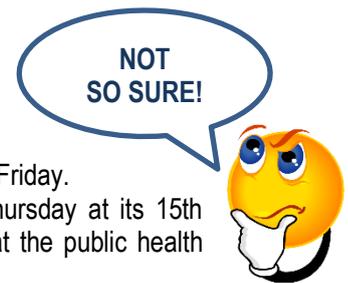
A PHEIC creates an agreement between countries to abide by WHO's recommendations for managing the emergency. Each country, in turn, declares its own public health emergency – declarations that carry legal weight. Countries use them to marshal resources and waive rules in order to ease a crisis.

The United States is set to let its [Covid-19 public health emergency end](#) on May 11.

Covid-19 continues to spread, the virus is evolving and remains a global health threat, but at a lower level of concern, according to WHO officials.

"There's still a public health threat out there, and we all see that every day in terms of the evolution of this virus, in terms of its global presence, its continued evolution and continued vulnerabilities in our communities, both societal vulnerabilities, age vulnerabilities, protection vulnerabilities, and many other things," said Dr. Mike Ryan, executive director of WHO's Health Emergencies Programme. "So, we **fully expect that this virus will continue to transmit, but this is the history of pandemics**," Ryan said. "In most cases, pandemics truly end when the next pandemic begins. I know that's a terrible thought but that is the history of pandemics."

Dr. Maria Van Kerkhove, WHO's Covid-19 technical lead and head of its program on emerging disease, said that the emergency phase of the Covid-19 crisis is over, but the disease is "here to stay" and the coronavirus that causes the disease is not going away any time soon.





“While we’re not in crisis mode, we can’t let our guard down,” Van Kerkhove said. “Epidemiologically, this virus will continue to cause waves. What we are hopeful of is that we have the tools in place to ensure that the future waves do not result in more severe disease, don’t result in waves of death and we can do that with the tools we have at hand. We just need to make sure that we are tracking the virus because it will continue to evolve.” There have been more than 765 million confirmed Covid-19 cases since the start of the pandemic, according to [WHO data](#). Nearly 7 million people have died. Europe has had the most confirmed cases overall, but the Americas have reported the most deaths. About 1 in 6 total deaths have been in the US. Cases peaked in December 2022 as Omicron swept the globe, hitting the Western Pacific particularly hard. But billions of vaccine doses have been administered globally, and deaths have remained far below previous peaks. Now, **Covid-19 cases and deaths are about the lowest they’ve been in three years. Still, more than 3,500 people died in the last week of April and billions remain unvaccinated.** Tedros said that, if needed, he would not hesitate to convene another emergency committee meeting and declare a global health emergency again if there is a significant rise in Covid-19 cases or deaths in the future. “Covid-19 has left and continues to leave deep scars on our world. Those scars must serve as a permanent reminder of the potential for new viruses to emerge with devastating consequences,” Tedros said. “One of the greatest tragedies of Covid-19 is that it didn’t have to be this way. We have the tools and technologies to prepare for pandemics better, detect them earlier, respond to them faster, and communicate their impact. But globally, a lack of coordination, a lack of equity, and lack of solidarity meant that those tools were not used as effectively as they could have been,” Tedros said. “We must promise ourselves and our children and grandchildren that we will never make those mistakes again.”

Astonishing Discovery Finds 10,000 Mostly Unknown Viruses in Baby Poo

By Evelien Adriaenssens

Source: <https://www.sciencealert.com/astonishing-discovery-finds-10000-mostly-unknown-viruses-in-baby-poo>

May 05 – An international team of scientists who spent five years studying the poo of [647 Danish babies](#) found something astonishing. The nappy samples contained 10,000 species of [virus](#) – ten times the number of bacterial species in the same children. Most of the [viruses](#) had never been described before.



This may alarm many readers. Viruses haven't exactly had a [good reputation](#) in recent years. But what many people don't realize is that the overwhelming majority of viruses do not make people sick and do not infect humans or animals at all.

The viruses I'm referring to are bacteriophages. They exclusively infect bacteria and make up a large part of the human microbiome. It's these bacteriophages that the researchers found so abundantly in baby poo. Indeed, around 90 percent of the viruses found in the nappies of the Danish babies were these bacteria killers. The human gut microbiome is a complex collection of microorganisms, including bacteria, archaea, microbial eukaryotes and viruses. The viral component of the gut microbiome, or virome, is mainly made up of bacteriophages that help maintain a healthy and diverse microbiome.

Atlas

The researchers of this new study – a collaborative team from Denmark, Canada and France – looked at how many of these 10,000 viruses were new and how best to describe all this new viral diversity in an accessible form.

Putting all of them in a large table would be a rather boring read. Instead, they created an "atlas of infant gut DNA virus diversity", where they grouped the viruses into new virus families and orders based on how similar the genomes were to each other. They found 248 families of which only 16 were previously known. The researchers named the remaining 232 newly identified virus families after children who took part in the study, such as *Sylvesterviridae*, *Rigmorviridae*, and *Tristanviridae*.

An [interactive version](#) of the atlas is available online.

Unique viromes

What is interesting about bacteriophages and other viruses in the gut is that every person has their own unique set, with [almost no overlap between two different people](#). While each gut virome is unique, it is also stable over time in adults, meaning you carry with you the same set of viruses as you age. But right after a baby is born, this virome is very different from that of an adult and it only stabilizes after a couple of years. When comparing the approximately 10,000 viruses of this new study with extensive reference virome collections of healthy adults, the researchers found that only about 800 of these viruses had been found before.

That means that when babies are born and have the first bacteriophages colonize their gastrointestinal tract, these "baby bacteriophages" don't all stay there, but gradually get replaced with "adult bacteriophages".

This replacement could be partially linked to the bacterial hosts these bacteriophages infect. For example, *Bacteroides*, *Faecalibacterium*, and *Bifidobacterium* were the most prominent hosts that were predicted for the baby bacteriophages.

I'd like to highlight *Bifidobacterium* species here, which are very important for infant health. These bacteria help with the digestion of breastmilk and so are important early in life, but become less abundant as we age.

So it makes sense that the viruses that infect *Bifidobacterium* are found more in babies and less in adults.

Conversely, the most abundant group of adult gut bacteriophages, members of the order *Crassvirales* were not as prevalent in baby poo, meaning children acquire these bacteriophages as they age. With the addition of these 10,000 new virus species and the many new families, from just one group of several hundred Danish babies, it becomes clear that there's more that we don't know about the virome than what we do know. But the scientific community is working on it, one baby poo sample at a time.

[Evelien Adriaenssens](#) is Group Leader, Gut Viruses & Viromics, Quadram Institute.

J. Tritto, Professor surgeon: The chimeric virus Covid-19 was created in a laboratory

Source 1: <https://hellas.postsen.com/coronavirus/313600/J-Tritto-Professor-surgeon-The-chimeric-virus-Covid-19-was-created-in-a-laboratory.html>

Source 2 (in French): <https://www.francesoir.fr/videos-l-entretien-essentiel/les-armes-biologiques-sont-developpees-malgre-les-traites>

Apr 26 – Joseph Tritto Professor surgeon and author of the book "The chimera that changed the world": it is documented, this type of chimeric virus was created in a laboratory. USA and China were working together.

Excerpt from the interview on 24/4/2023 of the Italian Professor Joseph Tritto in France-Soir:

We have a very strong, very unique piece of evidence that shows that this type of chimeric virus created in a laboratory was the last sequence. The chimeric combination of Sars Cov developed before it arrived (spread)...Americans and Chinese published together there is a transaction in it, they discussed in confrontation (face to face) where documents and scientific publications come from that show that it





was a program developed and funded. There are many people who worked on it in various guises and were authorized controlled and monitored.

-from which military or political investigations?

-of course. **Wuhan became a double laboratory, a network of military research and a network of political research.** For treatments, potentially vaccines, because if you will, a biological weapon is a vaccine for the military is necessary. **The problem arose at some point as the Chinese and the Americans were working together but there was also competition between them. As the dual mode of operation of the Chinese the ying and yang was clear.** so the Beijing Academy of Sciences, so the Xi Jinping government in Wuhan was not in the Shanghai group was working a lot with America **but he also did parallel research.** In the parallel investigations the Americans had Sars Cov..."

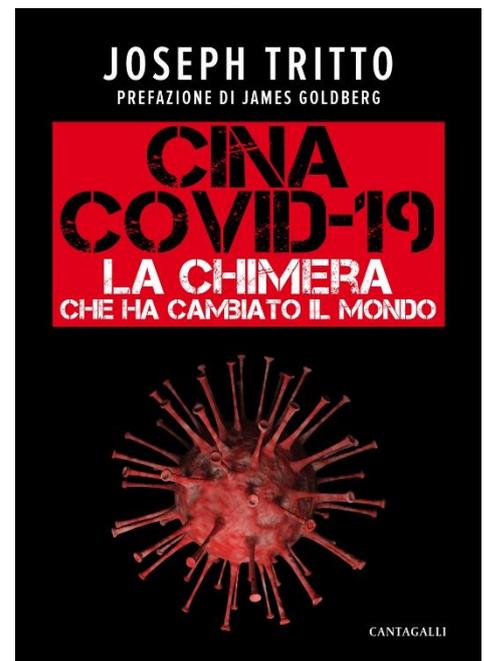
Joseph Tritto, surgeon and author of The Chimera That Changed the World.

Professor Tritto has been president of WABT (World Alliance for Biomedicine & Technology) since 2000, an organization created in 1997 under the auspices of UNESCO whose mission is to deal with the transfer of medical technology to developing countries. He was interested in the development of biotechnologies that enable the research of medical treatments at the same time as the development of bacteriological agents for military use through "gain-of-function" experiments. For Professor Tritto, the biological weapon is much more flexible and tactical than the nuclear weapon.

Professor Tritto discusses in detail the "proximity" that exists between the pharmaceutical industry and the military-political complex, as biomolecular research can lead to the creation of military weapons.

Going back to the history and narrative of the SARS-Cov1 episode in 2002, as well as MERS, he explains the genesis of SARS-Cov2 and pays tribute to the work of the late Professor Luc Montagnier, the Nobel Prize in Medicine. An essential interview for anyone who wants to understand the development of the pharmaceutical industry and the circumvention of international regulations aimed at protecting populations from the excesses of biological weapons research for military purposes.

In his book Prof. Tritto explains the origins of the virus with precision and scientific rigor, beginning with the Chinese effort to study Sars vaccines. by introducing HIV genomes into organisms (making them more aggressive) by adding elements of the coronavirus discovered in bats, in a method called "reverse genetics system 2".



Wuhan. This center was assisted by the French government and the Pasteur Institute, from which the Chinese learned the use of HIV genomes. Then there is the help of some American scientists, including Prof. Ralph S. Baric, University of North Carolina and the US Funds for Development Assistance (USAID). According to the professor, such research was born to fight diseases, but gradually turned into bioengineering studies for the manufacture of deadly biological weapons.

Here's What It Means That the WHO Says COVID Is No Longer a Global Health Emergency

By Simon Nicholas Williams

Source: <https://www.sciencealert.com/heres-what-it-means-that-the-who-says-covid-is-no-longer-a-global-health-emergency>

May 07 – [World Health Organisation](#) (WHO) experts [have officially declared](#) that COVID [no longer constitutes](#) a public health emergency of international concern (Pheic).

This coincides with the WHO's new [strategy](#) to transition from an emergency response to longer-term sustained COVID disease management.

This may not change too much practically. COVID will still have [pandemic](#) status, and countries will continue to have their own authority as to whether to treat COVID as an emergency within their territories (some countries, [including the US](#), have already declared an end to the national emergency).

For the global public health community, however, this is an event of monumental importance, drawing to a close the emergency response period which commenced on [30 January 2020](#).

At the same time, for a large portion of the general public, it may well pass by relatively unnoticed. For many people, it's been a long time since they viewed COVID as an emergency.

In the UK for example, COVID no longer features in the regular Office for National Statistics [public opinion survey](#) that asks people what they think the key issues facing the country are. Even a year ago, [only two in five Britons](#) were very or somewhat worried about COVID, according to the survey.

Along with other behavioral scientists, I have been following [public experiences of the pandemic](#) for the past three years.

The results have yet to be peer-reviewed but by summer 2022, many participants in [our research](#) described the pandemic as being like "a distant memory" or like it "never happened".

As we move into this next phase, it's time to consider what we've learned about human behavior during the pandemic, and what happens next.

Old habits die hard

In the early days of the pandemic, many behavioral scientists, myself included, wondered whether some of our pandemic habits [were here to stay](#). Would [face masks](#) become a regular wardrobe staple? Would people stop "soldiering on" and going into work when unwell?

It turned out that for most people, the pandemic hasn't permanently changed our behavior and habits or created a "[new normal](#)". Looking again at the UK, face mask use has consistently declined, with [figures from last month](#) suggesting that fewer than one in six adults had worn a face mask recently. Regular use is likely much less common.

Social distancing has long since disappeared, except for a relatively small proportion of the public, in particular those most vulnerable to COVID. The COVID pandemic has taught us how adaptive behavior can be, in particular how much people were willing to change their behavior to keep themselves and others safe.

Most people [followed the rules](#) during [the height of the pandemic](#), no matter how difficult. COVID has reminded us [how resilient we humans can be](#). These pandemic adaptations, and the fact that our pre-pandemic behavior bounced back so quickly, shows how important social cues and social norms are to behavior.

Putting on a mask or keeping our distance from others were habits – [actions triggered automatically](#) in response to contextual cues, such as seeing signs with pictures of people socially distancing.

Social norms – what we think others are doing – were key to [vaccine uptake](#) and to our uptake of [preventative measures in general](#). As these contextual cues disappeared and the social norms started to change, and as vaccine coverage increased and the risk to the majority decreased, our behavior changed.

The pandemic has also demonstrated how important social connections and social, especially physical, contact can be. This is something [we have already argued](#) COVID couldn't keep at bay forever.



ICI C²BRNE DIARY – May 2023

According to social safety theory, which sees stress and wellbeing as a product of biological, psychological, and social factors, COVID [posed a threat](#) to the "social fabric that makes humans resilient and keeps us alive and well".

It's unsurprising that life satisfaction and happiness were [lowest during lockdowns](#), and [recovered as people started to mix socially again](#).

The emergency isn't over for everyone

As we mark the end of the emergency phase it's important to remember the [nearly 7 million lives lost](#) due to COVID since 2020.

And of course, we must consider that for some, especially those who are clinically vulnerable, the emergency is not yet over, and may never be. Although it's no longer a Pheic, [as the WHO reminds us](#), COVID is still responsible for millions of infections and thousands of deaths each week around the world.

Also, thanks to long COVID, hundreds of millions of people are in need of longer-term care.

In the future, we need to move from relying on the resilience of individuals to building resilience in our institutions. We can all take measures to continue to protect ourselves and those around us from COVID and other respiratory [viruses](#) (such as by [hand washing](#) and keeping up to date with vaccinations).

But responsibility for preventing public health emergencies shouldn't rest [solely in the hands of the public](#)

Actions that governments, employers, and health authorities can take now could [protect against](#) future [public health emergencies](#).

Systematically [tackling misinformation](#), [improving ventilation](#) in [schools](#), workplaces, and other public indoor spaces, and making longer-term improvements to paid sick leave are all good ways to start building more [resilient societies](#) in preparation for the next pandemic. Hopefully, this is something we will never see in our lifetimes.

[Simon Nicholas Williams](#) is a Lecturer in Psychology, Swansea University.



Who will vaccinate people during the next pandemic? The US public health sector is falling behind

By Kimberly Ma

Source: <https://thebulletin.org/2023/05/who-will-vaccinate-people-during-the-next-pandemic-the-us-public-health-sector-is-falling-behind/>

May 05 – Without a doubt, one bright spot in the overall-checkered US response to COVID-19 was the [record-breaking development](#) of effective vaccines coupled with the [largest vaccination campaign](#) the country has ever undertaken. Communication around “travel bans” and “lockdowns” or the rollout of tests was all a mess, but getting those shots in people’s arms within a year of the outbreak in Wuhan? That was a shining success.

But since then, the warning signs that the country is ill-prepared for the next big thing are piling up. Among those, one of the most worrisome (and overlooked) is the decay in the very same public health workforce that comprises many of the individuals who gave those shots.

Public health workers were as important to navigating COVID-19 as the thousands of doctors, nurses, and other hospital staff who saw their work environments turned into infectious warzones overnight. When another disaster inevitably strikes, these workers will again be responsible for monitoring new disease



threats, tracking existing ones, applying control measures, and organizing vaccine campaigns. But the pandemic has decimated their ranks. It may be hard to believe, but the public health sector may be even less-prepared for a pandemic than it was in late 2019. Pandemic preparedness efforts appear at risk of stalling in many areas; in the case of building a better public health system, though, they are actively backsliding.

Organizations such as the de Beaumont Foundation and the Association of State and Territorial Health Officials (ASTHO) have conducted [nationwide surveys](#) to better understand how public health workers are holding up. The statistics are appalling. About 46 percent of state and local public health employees left their jobs between 2017 and 2021, and this shoots up to over 70 percent for staff under the age of 35 or those with under five years of experience. These numbers mean we are disproportionately losing entry-level, younger staff at the same time as older public health workers continue to retire from the workforce.

If these figures are not bad enough, a survey by deBeaumont and ASTHO in 2022 showed that [nearly one-third](#) of current public health workers are considering leaving their jobs in the next year. With [public health staff numbers](#) around 200,000 heading into the pandemic, which was already 50,000 less than in 2008, that means we are at risk of losing an additional almost 70,000 workers from an already stretched workforce. Despite its critical role in responding to biological threats (and more), public health has always faced difficulty with sufficient investment. Each year, or with each crisis, Congress [passes](#) funding for the CDC, which then distributes resources to states. Despite [arguably greater needs](#), the CDC has suffered an overall 2 percent budget decrease over the past decade (after adjusting for inflation). And while Congress may point to one-time pandemic-era funding pots like the Infectious Disease Rapid Response Reserve Fund, these are primarily restricted to COVID-19 response activities; they're the opposite of the sustained, steady funding needed. Against this dismal backdrop, the United States is trying to prepare for the next major biological threat. Officials in Washington understand, of course, that another pandemic could happen. They've laid out plans to do better next time. For example, in 2022, the Biden administration issued an [updated National Biodefense Strategy](#), a 53-page document detailing how the US government intends to prepare for and deal with natural and intentional biological threats. Laudable in many ways, a major focus of the strategy focuses on continuing the government's partnerships with the private sector to ensure the capacity to rapidly innovate, research, develop, and mass-produce therapeutics such as vaccines or antivirals. This goal absolutely has its merits. Many leaders and researchers in public health are particularly excited, understandably, about the huge potential held within broad-spectrum antivirals that could more widely target a family of pathogens, instead of a single pathogen or single variant at a time.

At the same time, bluntly put, who is going to make those innovations and wonderful discoveries count? There is a difference between vaccines and vaccinations, as the COVID-19 pandemic made clear. One aspect that the National Biodefense Strategy seems to insufficiently account for is the critical state of our public health workforce.

The words "workforce" or "recruitment" are explicitly mentioned only three times in the entire document. Furthermore, even in those cases, the focus is on staff in laboratories, such as public health laboratorians and technicians as well as "One Health" experts who understand the connection between environmental, animal, and human health. And absolutely, as the strategy does a great job of recognizing the risk of zoonotic spillover of animal pathogens, recruiting these kind of experts will be key moving forward. Yet, even these mentions inherently gloss over the current state of the public health workforce writ large.

There are two implicit assumptions in the strategy about the public health workforce: (1) By not noting any need to rebuild the public health workforce, the strategy implies that the public health workforce remains the same as it was prior to the pandemic; and (2) with no explicit action item to ensure a strong public health workforce, the strategy also assumes that the public health workforce is generally robust, fully resourced, and well-supported. Both of these assumptions are a far cry from the truth.

The reality is that the public health workforce was already strained prior to the pandemic, and then decimated during COVID-19 response both in terms of physical numbers, but also, importantly, in terms of the mental health of practitioners.

Gerrit Bakker, former director of Colorado's public health agency, told me that public health workers already generally accept that "burnout comes with the territory." But the pressures of the pandemic proved too much. It was not just the insufficient resources and acutely amplified demands; the workforce faced relentless harassment, especially as public health officials became the object of protests over COVID-19 policies. In contrast to the praises sung for many health care providers, public health workers were not viewed in the same heroic light. Mackenzie Raub, a former county public health agency staffer in Pennsylvania, told me about the harassment that public health workers faced, in the form of phone calls, emails, protests, and direct, public confrontations.

In order to realize the promise in the National Biodefense strategy and other plans for increasing the country's resilience against pandemics, a strengthened and improved public health sector will be vitally important. Rebuilding this workforce as soon as possible is critical to halt further hemorrhaging of both institutional knowledge and the bodies needed to run a response, because as much as the world may be tired of hearing anything about outbreaks and viruses, the unfortunate reality is that COVID-19 will not be our last pandemic. With climate change will come more natural disasters such as hurricanes, and with them, loss of housing, displacement, and other crises that create circumstances for disease outbreaks. With increasing globalization will come population growth, overcrowding, and, likely,



the rampant spread of illness in areas with poor sanitation. With urbanization will come novel interactions between humans and wild animals that increase the chances of spillover events. But while humans cannot resist all of the forces in these scenarios, we can prepare and react to prevent a singular event from becoming a full-blown pandemic. The public health workforce will and should always be a cornerstone of this larger strategy.

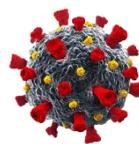
In a future pandemic threat, public health workers will again need to plan vaccination clinics and outreach to communities. Even with efforts by public health departments and federal agencies to improve data collection and upgrade systems, public health workers will still need to be a part of collecting data and analyzing patterns in everything from disease prevalence, based on ethnicity or age, to pathogen presence in a neighborhood's wastewater. And while the Biden administration's National Biodefense Strategy discusses the need to counter misinformation and disinformation, outreach efforts and building trust cannot consist of just an AI chatbot or a webpage: it will yet again require personnel—i.e., living, breathing humans on the frontlines who have the time and the resources to take on these roles. The 2022 National Biodefense Strategy is a wonderful improvement upon the 2018 version, which lacked details such as specific action items about how to enact the ideas in it. While the 2022 iteration is a more concrete roadmap for how to move forward, Congress and public health leaders should dig a little deeper and examine whether, as a country, we are fully accounting for the devastation that COVID-19 has wrought on top of pre-existing vulnerabilities. The public health workforce is just one potential example. One might think that after experiencing COVID-19, that the public health sector is fully prepared for the next big thing, 10 steps ahead of where it was in 2019; the reality is that it has only fallen further behind. Staff remain under-resourced and burnt out; many of Bakker or Raub's former colleagues are retiring early or continue to leave for other career opportunities. General, long-term investments in pandemic preparedness will most likely require the formal, federal recognition of public health's cornerstone role in our country's biodefense capabilities that has so far been lacking.

The Biden administration will lift the COVID-19 public health emergency declaration on May 11, an official end, of sorts, to the pandemic response in the United States. To ensure US biodefense capabilities are robust and ready, whether for the next variant tomorrow or a bioweapon attack in ten years, every single critical component, public health staff included, cannot just exist, hanging by a thread. Rather, they all need to be well-resourced, diverse, and thriving.

Kimberly Ma is a PhD student in Biodefense at George Mason University and a senior analyst with the Preparedness division at the Association of State and Territorial Health Officials (ASTHO). Previously, she was a biosecurity project lead with CRDF Global for projects funded by Department of State's CTR Biosecurity Engagement Program, and also served as team lead for CRDF's Women in Science and Security Initiative. She focuses on capacity-building in healthcare systems, risk communications, emerging biological threats due to climate change and urbanization, and advancing equity in national security workplaces. Kimberly holds a Master of Science from Georgetown University's Biohazardous Threat Agents program and a double bachelor's degree in molecular biology and Japanese from Dartmouth College.

Bioterrorism: Applying the Lens of COVID-19

Report 2021



CTPN
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PREPAREDNESS NETWORK



Infectious Disease Disasters: Bioterrorism, Emerging Infections, and Pandemics

By Terri Rebmann

Source: https://apic.org/Resource_/TinyMceFileManager/Topic-specific/47901_CH120_R1.pdf

Infectious disease disasters are events that involve a biological agent/disease and that result in mass casualties, such as a bioterrorism attack, a pandemic, or an outbreak of an emerging infectious disease. Infectious disease disasters are different from other types of disasters because they increase the risk of communicable disease spread during and after the incident. Subsequently, they involve the need for specialized mitigation, planning, and response interventions to prevent and control the spread of disease. As experts in the fields of surveillance, epidemiology, and prevention of communicable disease spread, infection preventionists play a critical role in emergency management of infectious disease disasters at the personal, hospital/healthcare facility, and community level. Emergency



management of infectious disease disasters is a multi-departmental and multi-agency endeavor that encompasses the four principles of emergency management: mitigation, preparedness, response, and recovery.

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Managing Infodemics

Source: <https://link.springer.com/book/10.1007/978-3-031-27789-4#about-this-book>

This open access book on infodemic management reviews the current discussions about this evolving area of public health from a variety of perspectives.

Infodemic management is an evidence-based practice underpinned by the science of infodemiology that offers guidance to better manage pandemic and epidemic risks and more quickly tackle new and resurgent health threats. Infodemic management has added much visibility and recognition for the importance of social-behavioural sciences, health communication, participatory and human-centered approaches, and digital health as complementary scientific and practical approaches that also must be strengthened in public health practice through a whole-of-society and whole information ecosystem approach. This volume makes a case that health of the information ecosystem in the digital age has emerged as the fourth ecosystem that public health is challenged by, along with the triad of environment-human-animal health.

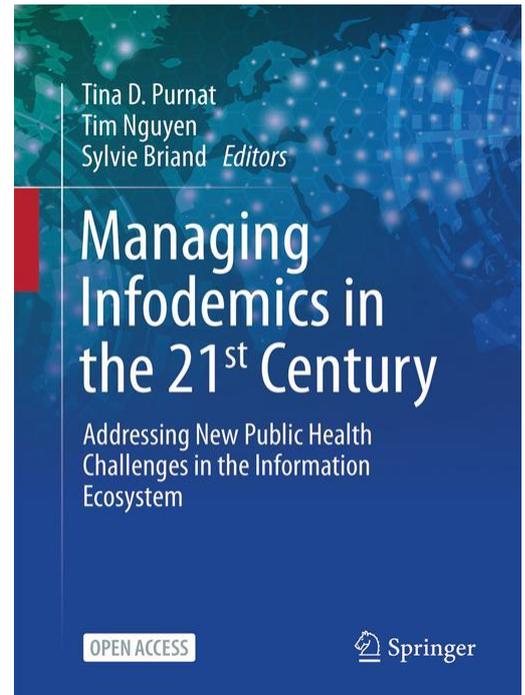
The book brings together scientists and practitioners across disciplines to offer insights on infodemic management. The tools, methods, analytics, and interventions that they discuss in the context of acute health events also can be applied to other public health areas. Topics covered include:

- People's Experience of Information Overload and Its Impact on Infodemic Harms
- Smart Health! Expanding the Need for New Literacies
- To Debunk or Not to Debunk? Correcting (Mis)information
- Partnering with Communities for Effective Management of Health Emergencies

Managing Infodemics in the 21st Century is required reading for public health practitioners in need of an overview of this evolving field of practice that has made major scientific and practical leaps forward since early 2020. Global, regional, and local health authorities are increasingly recognizing the need to expand their capacities for infodemic management in their efforts to better prepare for future health emergencies. This book is the resource they need to build toward a mature infodemic management process. The text also can be used as supplemental reading for graduate programs and courses in public health.

Five key takeaways from the book:

- Health authorities are recognizing the need to build capacity for infodemic management; more than 95% of countries have reported tracking health misinformation during the COVID-19 pandemic and are now applying these capacities to other outbreaks and emergencies.
- Using approaches analogous to epidemiology, infodemiology takes an evidence-based approach to understand people's information environment and how it relates to people's health perceptions and behavior.
- The information ecosystems that individuals, communities and countries inhabit are in constant flux and are becoming more complex every day. This book can equip you and colleagues with understanding of high level infodemic management concepts to help navigate this new landscape.
- Infodemic managers work to reduce the spread and harm of narratives and misinformation that advocate against following public health guidance, promotes stigma and violence, propagate conspiracies, erode trust in health services and health workers and promote healthy information environments and the more effective spread of credible, accurate health information across the information environment that empower people to protect themselves and their families from a public health threat.



- WHO has developed a programme of work to support epidemic and pandemic preparedness and prevention, which advances the science of infodemiology, promotes innovation in tools and intervention development, and develops effective capacity building strategies to upskill health workforce across health systems.

Most COVID-19 Deaths May Be The Result of a Completely Different Infection

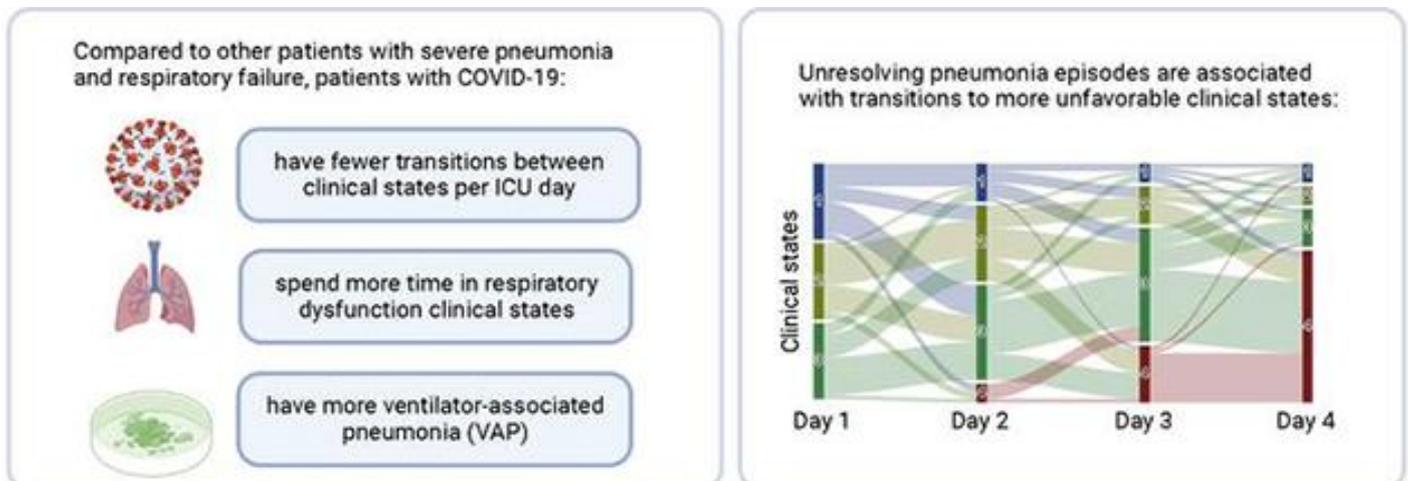
Source: <https://www.sciencealert.com/most-covid-19-deaths-may-be-the-result-of-a-completely-different-infection>



May 11 – [COVID-19](#) is no [longer classed as a global health emergency](#) by the [World Health Organization](#), but scientists are still working hard to understand more about the [virus](#) and its impact – including how the [coronavirus](#) affects the body and leads to death. A new analysis suggests that a high percentage of people who required help from a ventilator due to a COVID-19 infection also developed secondary bacterial [pneumonia](#). This pneumonia was responsible for a higher mortality rate than the COVID-19 infection. So while COVID-19 may have put these patients in the hospital, it was actually an infection brought on by the use of a mechanical ventilator that was more likely to be the cause of death when this infection didn't respond to treatment.

"Our study highlights the importance of preventing, looking for, and aggressively treating secondary bacterial pneumonia in critically ill patients with severe pneumonia, including those with COVID-19," [says](#) Benjamin Singer, a pulmonologist at Northwestern University in Illinois. The team looked at records for 585 people admitted to the intensive care unit (ICU) at Northwestern Memorial Hospital, also in Illinois. They all had severe pneumonia and/or respiratory failure, and 190 had COVID-19.

Using a [machine learning](#) approach to crunch through the data, the researchers grouped patients based on their condition and the amount of time they spent in intensive care. The findings refute the idea that [a cytokine storm](#) following COVID-19 – an overwhelming inflammation response causing organ failure – was responsible for a significant number of deaths. There was no evidence of multi-organ failure in the patients studied.



The researchers used machine learning to identify patterns. ([Gao et al., J. Clin. Investig., 2023](#))



Instead, COVID-19 patients were more likely to develop ventilator-associated pneumonia (VAP) and for longer periods. Cases where VAP didn't respond to treatment were significant in terms of the overall mortality rates in the study.

"Those who were cured of their secondary pneumonia were likely to live, while those whose pneumonia did not resolve were more likely to die," [says](#) Singer.

"Our data suggested that the mortality related to the virus itself is relatively low, but other things that happen during the ICU stay, like secondary bacterial pneumonia, offset that."

These results suggest that ICU outcomes could be improved if there were better strategies to diagnose and treat VAP episodes – something that the researchers say needs to be addressed in the future.

It's worth bearing in mind that if a patient's requirement for a ventilator to treat COVID-19 complications leads to VAP, this doesn't imply that a COVID-19 infection is less dangerous, nor does it decrease the number of COVID-19 fatalities.

As the authors [write](#) in their paper, "The relatively long length of stay among patients with COVID-19 is primarily due to prolonged respiratory failure, placing them at higher risk of VAP."

But the findings highlight a need for further study and to be cautious when making assumptions about the cause of death in COVID-19 cases. A detailed molecular analysis from the same study should reveal more about what makes the difference between recovering or not from VAP.

It's also another example of how machine learning [artificial intelligence](#) can process vast amounts of data and spot patterns beyond us mere humans – whether it's [analyzing proteins](#) or [advancing mathematics](#).

"The application of machine learning and artificial intelligence to clinical data can be used to develop better ways to treat diseases like COVID-19 and to assist ICU physicians managing these patients," [says](#) Catherine Gao, also a pulmonologist at Northwestern.

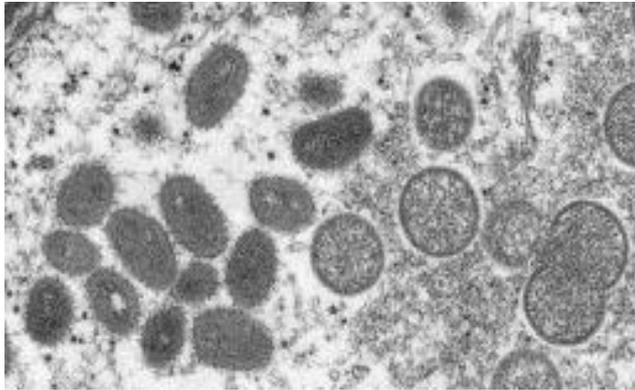
●► The research has been published in the [Journal of Clinical Investigation](#).

WHO says mpox is no longer a global health emergency

Source: <https://edition.cnn.com/2023/05/11/health/mpox-global-health-emergency-who/index.html>

May 11 – The World Health Organization declared on Thursday the mpox outbreak is no longer a global health emergency.

In July 2022, WHO declared mpox, previously known as monkeypox, a [public health emergency of international concern](#) – “an extraordinary event” that constitutes a “public health risk to other States through the international spread of disease” and “to potentially require a coordinated international response.”



A PHEIC creates an agreement between countries to abide by WHO's recommendations for managing the emergency. Each country, in turn, declares its own public health emergency – declarations that carry legal weight. Countries use them to marshal resources and waive rules in order to ease a crisis. After a heated meeting this week, WHO's emergency committee for mpox recommended an end to the emergency, and WHO Director-General Tedros Adhanom Ghebreyesus agreed with its assessment. “Yesterday, the emergency committee for mpox met and recommended to me that the multi-country outbreak of mpox no longer represents a public health emergency of international concern. I have accepted that advice and

I'm pleased to declare that the mpox is no longer a global health emergency,” Tedros said. “However, as with Covid-19, that does not mean that the work is over. Mpox continues to pose significant public health challenges that need a robust, proactive and sustainable response.” The director-general urged countries to maintain their testing capacity and ability to respond to future outbreaks quickly. From January 2022 through April 2023, more than 87,000 confirmed cases of mpox, including 140 deaths, were reported to WHO from 111 countries or territories. More than 30,000 cases have been [reported in the United States](#). Globally, cases have been declining for months, especially as awareness has increased and a vaccine became more widely available.

Tedros said there were 90% fewer cases reported over the last three months compared to the previous 90 days.

Dr. Nicola Low, co-chair of the International Health Regulations emergency committee on mpox, said that despite the number of cases falling, transmission continues to circulate.

“So, there's understandable uncertainty about the probability of a large resurgence of infection. There are also gaps in knowledge, which we acknowledge including about modes of transmission in some countries,



about the effectiveness of vaccines, and continued lack of effective countermeasures, particularly in African countries where transmission and mpox cases occur regularly,” she said.

As a result, Low said, the committee’s move to recommend lifting the public health emergency came “after intense deliberations and discussions,” but the committee determined that the challenges were best solved through a long-term approach rather than through emergency measures.

Mpox is a less severe cousin of the now-eradicated smallpox virus. It is endemic to parts of West and Central Africa and has typically been contracted from a rodent or small mammal. In the recent outbreak, gay, bisexual and men who have sex with men have made up the majority of cases, although anyone with close, personal contact with someone with mpox is at risk.

“While stigma has been a driving concern in managing this epidemic and continues to hamper access to care for mpox, the feared backlash against the most affected communities has largely not materialized. For that, we’re thankful,” Tedros said.

The virus can spread through contact with body fluids, sores or items such as clothing and bedding contaminated with the virus. It can also spread from person to person through respiratory droplets, typically in a close setting.

Tedros said that even though the global health emergencies of mpox and Covid-19 are now both over, the possibility of a resurgence lingers.

“Both viruses continue to circulate and both continue to kill,” he said.

Holding mass and large gathering events during the multi-country mpox outbreak in the WHO European Region: lessons identified for future mass gathering preparedness: meeting report, 22 February 2023

Source: <https://apps.who.int/iris/bitstream/handle/10665/367453/WHO-EURO-2023-7420-47186-69127-eng.pdf?sequence=1&isAllowed=y>

In June 2022 the WHO Regional Office for Europe and the European Centre for Disease Prevention and Control (ECDC) published joint interim advice for public health authorities on summer events during the mpox outbreak in Europe, along with an mpox resource toolkit, to assist Member States in the European Region to respond to the ongoing outbreak. The transition of mpox to a new phase of the outbreak presented an opportunity to bring together various stakeholders involved in mass and large gathering events to share insights on lessons identified, good practices implemented, and to gain further feedback on holding future events in Europe. A knowledge sharing webinar with key stakeholders was organized with the aim of refining current advice, promoting capacity building and improving future responses to the mpox outbreak and other future health emergencies by Member States. Through country experience presentations and discussion, key lessons were identified, and recommendations were shared for holding mass and large gathering events in the context of the mpox multi-country outbreak.

During the webinar the following key recommended actions were identified for consideration when holding mass and large gathering events during the mpox outbreak in the WHO European Region:

- Mass and large gathering planning and preparedness activities need to be included as a key part of the development of medium- and long-term national action plans.
- Applying an all-hazards risk-assessment approach needs to be integrated as an essential part of mass gathering planning and preparedness
- Implementation and evaluation of relevant preventive measures during and after mass and large gathering events are critical in the response to the mpox outbreak.
- National and local guidance relevant to mass and large gathering events during the mpox outbreak must be adapted to the event and population context with a focus on at-risk communities.
- All key stakeholders should be identified and engaged with clear communication channels in place from the outset of mass and large gathering planning and preparedness as a cornerstone to mpox prevention and control.
- When possible, local health authorities and CSOs should partner to create and implement joint outreach campaigns before, during and after events to enhance delivery to appropriate audiences and maximize the outcome of message content, targeted channels and reach.
- Alternative approaches to contact tracing, such as partner notification, need to be examined and integrated into national mpox prevention and control strategies for mass and large gathering prevention and preparedness to improve surveillance.



- Digital platforms such as event websites, social media, event apps and dating apps should foster community-based actions with a non-discriminatory approach and be considered as key channels for effectively communicating mpox public health advice and should be considered in mass and large gathering planning and preparedness, where appropriate.



Next-level CRISPR gene editing: No viruses required

Source: <https://newatlas.com/biology/nonviral-method-increases-gene-editing-efficiency-threefold/>

May 11 – Most have heard of CRISPR/Cas9, the gene-editing technology that's revolutionized biomedical research. Now, researchers have added another tool to the gene-editing toolbox after discovering a new way of using the technology that improves its editing efficiency and provides a new way to repair DNA.

[CRISPR/Cas9](#) tech was adapted from a naturally occurring genome editing system bacteria use as an immune defense. When bacteria are infected by a virus, they 'cut off' a small piece of the virus's DNA and insert it into their own in a particular arrangement known as a CRISPR array. This means the virus can be recognized later and, if it re-invades the bacteria, can be targeted for destruction.

Gene editing in humans relies on the [Cas9 enzyme](#) which, guided by CRISPR, 'snips out' a fragment of DNA. The removed section can be replaced with a similar (homologous) but improved DNA template by a process called homology-directed repair, which initiates the cell's natural DNA repair mechanisms. Viruses – modified so they can't cause disease – are commonly used to deliver the template DNA to the cell's nucleus because of their effectiveness at entering cells.

Now, researchers from UC Santa Barbara have developed a nonviral delivery system that increases the efficiency of CRISPR/Cas9's gene-editing abilities and greatly improves homology-directed repair.

Viruses used for gene-editing purposes are expensive, hard to scale, and potentially toxic to cells. So the researchers looked at developing an alternative delivery method, adding interstrand crosslinks to the homology-directed repair template.

The separation of DNA's two helical strands is essential for cellular processes such as [replication](#) and transcription. Interstrand crosslinks (ICLs) are toxic DNA lesions that tether these strands together, inhibiting separation and, therefore, transcription and replication. Many cancer chemotherapies create ICLs that block the replication of cancer cells.



The researchers found that the damage caused by adding ICLs to the homology-directed repair template actually improved the likelihood of gene-editing success and stimulated cellular repair.

“Basically, what we’ve done is taken this template DNA and damaged it,” said Chris Richardson, corresponding author of the study. “We’ve in fact damaged it in the most severe way I can think of. And the cell doesn’t say, ‘Hey, this is junk; let me throw it away.’ What the cell actually says is, ‘Hey, this looks great; let me stick it into my genome.’”

They found that using ICLs improved gene editing activity by up to three times compared with non-crosslinked controls. With the increased editing activity, the researchers expected to see more errors; instead, they saw no increase in the mutation frequency.

“What we think happens is that the cell detects and tries to repair the damaged DNA that we’ve added this crosslink to,” Richardson said. “And in doing so, it delays the cell past a checkpoint where it would normally stop this recombination process. And so by prolonging the amount of time that it takes the cell to do this recombination, it makes it more likely that the edits will go to completion.” Recombination is the process by which pieces of DNA are broken and repaired (recombined) to produce new versions of DNA sequences (alleles).

The researchers say that their new method of gene editing will be useful in the laboratory setting to develop more efficient models of disease, opening the door to better clinical and therapeutic interventions.

“We can more effectively knock down genes and insert things into genomes to study systems outside of the human body in a lab setting,” said Hannah Ghasemi, lead author of the study.

●► The study was published in the journal [Nature Biotechnology](#).



What is the proposed WHO Pandemic Preparedness Treaty?

Source: <https://researchbriefings.files.parliament.uk/documents/CBP-9550/CBP-9550.pdf>

Mar 29 – In March 2021, a group of world leaders, including UK Prime Minister Boris Johnson, [announced an initiative for a new treaty](#) on pandemic preparedness and response. This initiative was taken to the World Health Organization (WHO) and will be negotiated, drafted, and debated by a newly-established Intergovernmental Negotiation Body.

[A petition](#) on the UK Parliament website called for the Government “to commit to not signing any international treaty on pandemic prevention and preparedness established by the WHO, unless this is approved through a public referendum”. The petition closed in November 2022 with 156,086 signatures. The Petition will be debated in Parliament on 17 April 2023.

This briefing will give an overview of the key background, progress, and developments of the treaty as of March 2023.

What is the WHO?

The [World Health Organization](#) (WHO) is the United Nations agency “that connects nations, partners and people to promote health, keep the world safe and serve the vulnerable – so everyone, everywhere can attain the highest level of health”.

The WHO Constitution was signed in July 1946 by representatives of 61 States and entered into force on 7 April 1948.

What is being proposed?

In the March 2021 joint article, [the group of leaders said](#):

The main goal of this treaty would be to foster an all of government and all of society approach, strengthening national, regional and global capacities and resilience to future pandemics. This includes greatly enhancing international co-operation to improve, for example, alert systems, data-sharing, research and local, regional and global production and distribution of medical and public health counter-measures such as vaccines, medicines, diagnostics and personal protective equipment.

The article acknowledges existing provision for a coordinated international response under the [International Health Regulations](#), which would “underpin such a treaty”.

In October 2021, the Working Group on Strengthening WHO Preparedness for and Response to Health Emergencies (WGPR) [published a ‘zero draft’ report](#) outlining an assessment of the benefits of a new WHO convention, agreement or other international instrument on pandemic preparedness and response, for consideration by the World Health Assembly. This Report, among other things, suggested that such an initiative “could include promoting high-level political commitment and whole-of-government whole-of-society approaches, addressing equity, enhancing the One Health approach, and strengthening health systems and their resilience.”

On 29 November – 1 December 2021, the WHO’s World Health Assembly (WHA) [met in a special session](#) to discuss the proposal and the way forward. This was only the second ever special session of its kind in



the history of the Assembly. In this session, the WHA agreed to establish an Intergovernmental Negotiating Body to draft and negotiate “a WHO convention, agreement, or other international instrument on pandemic prevention, preparedness and response.”

Does the UK support the treaty?

Prime Minister Boris Johnson was a signatory to [the article proposing the treaty initially](#).

On 27 May 2022, the Government responded to the Parliamentary petition, stating that it supported a new legally-binding instrument “as part of a cooperative and comprehensive approach to pandemic prevention, preparedness and response.”

The UK’s position on the exact substance of the treaty remains to be seen as negotiations continue.

What does the Treaty say?

[Zero Draft of the treaty](#), known as the Zero Draft of WHO CA+, was published on 1 February 2023, and discussed at the [Intergovernmental Negotiating Body’s fourth meeting](#) between 27 February 2023 and 3 March 2023.

Because the Zero Draft is the starting point for negotiations, the substantive provisions and content of the treaty could change. But the general structure and broad issues the treaty is likely to address are more likely to remain.

Currently, the parties are negotiating on issues such as:

- The definition, means, and procedure for declaring a pandemic, and what this actually means in practice for states.
- How the treaty would work alongside the International Health Regulations.
- Key international principles that will guide the treaty, such as human rights, sovereignty, equity, solidarity, transparency, accountability and more.
- How to achieve equity in the global supply chain for pandemic-related products, and access to relevant technologies.
- Strengthening the resilience and responsiveness of health systems.
- How states and the WHO should be coordinating and cooperating in pandemic preparedness and response.
- How to finance pandemic preparedness and response initiatives.
- Setting up a new Governing Body for the treaty – a COP or Conference of the Parties.
- Other general legal issues relating to the treaty, such as amendments, withdrawal, and dispute settlement.

Key dates moving forward

According to the WHO, the following are key dates in the progress of the treaty.

- The INB will host its fifth meeting in April 2023.
- The INB will deliver a progress report to the 76th World Health Assembly in May 2023.
- By late May / early June, the first draft of the WHO CA+ will be distributed to Member States.
- A INB Drafting Group will meet in June 2023.
- The INB will host its sixth meeting in July 2023.
- Further meetings or drafting group sessions could be held in September, November, and December 2023
- The INB will submit its outcome for consideration by the 77th World Health Assembly in May 2024.

We Could Easily Make Risky Virological Research Safer

Source: <https://www.homelandsecuritynewswire.com/dr20230512-we-could-easily-make-risky-virological-research-safer>

May 12 – The 2007: a [faulty drainage pipe](#) at a research facility causes an outbreak of foot-and-mouth disease in Britain. 2015: DOD discovered that a germ-warfare program in Utah had mistakenly mailed almost 200 samples of live anthrax over twelve years. 2018: a broken pipe released as many as [3,000 gallons of wastewater](#) from labs working with Ebola and anthrax at Fort Detrick in Maryland onto a grassy area a few feet from an open storm drain.

David Wallace-Wells write in the [New York Times](#) that

Lab accidents happen, and they aren’t especially rare. [A 2014 USA Today investigation](#) by Alison Young, whose book [Pandora’s Gamble: Lab Leaks, Pandemics, and a World At Risk](#) is a shocking accounting of the problem, identified more than a thousand accidents reported to federal regulators from 2008 to 2012. Some were not especially dangerous. But if you’ve read accounts of them at any point over the course of the Covid-19 pandemic as debate continued over its origins, chances are they’ve shaken you a bit. Many of the touchstone examples have been tied to quotidian causes — sloppy procedures and lax oversight. But lately debate has focused on the dangerousness of the experiments



themselves, in part because knowing what is risky suggests what extra precautions might be taken and in part because it raises a more bracing fundamental question: What kind of work is worth this risk?

In January the National Science Advisory Board for Biosecurity [issued](#) a series of draft recommendations for tightening regulation and oversight. The proposed [framework](#) would expand the list of pathogens that would require rigorous review and close some loopholes that allowed some researchers to avoid that oversight. But for the moment, the recommendations sit in a kind of regulatory limbo, awaiting a green light from the White House and implementation at the National Institutes of Health.

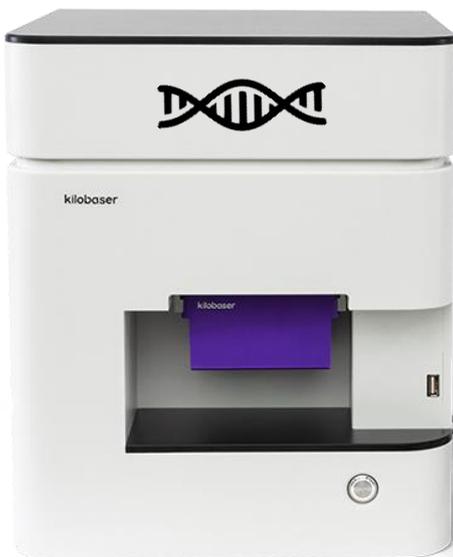
Wallace-Wells refers to the [recommendations](#) from the National Science Advisory Board for Biosecurity on how to minimize the risks from research biolabs, noting: “These suggestions would not eliminate the risk of lab accidents, but they would reduce the risk — and fairly simply.”

“Setting scientific norms has to be a positive thing,” Harvard epidemiologist Marc Lipsitch told Wallace-Wells, “even if it’s not a perfectly effective thing.”

Benchtop DNA printers are coming soon—and biosecurity experts are worried

By Robert F. Service

Source: <https://www.science.org/content/article/benchtop-dna-printers-are-coming-soon-and-biosecurity-experts-are-worried>



May 11 – Biologists who have been obtaining DNA sequences online from companies will soon have a more convenient option: benchtop machines that can print all the DNA they need. But this technology brings with it new risks by circumventing how synthetic biology companies now screen for would-be bioterrorists. A [report released yesterday](#) by a Washington, D.C., think tank urges companies and governments to revamp existing screening to prevent someone with malign motives from making a toxin or pathogen.

The current screening system, which is voluntary, “could be upended by benchtop DNA synthesis,” says report co-author Jaime Yassif, vice president for global biological policy and programs at the Nuclear Threat Initiative. “Governments, industry, and the broader scientific community need to put stronger safeguards in place to ensure this technology is not exploited by malicious actors and that it doesn’t lead to a catastrophic accident,” she says.

The ability to synthesize DNA has been around since the early 1980s. Technology has become a central component of genetic research and is used to develop novel and biofuels. Synthetic DNA

pharmaceuticals, agricultural products,

sequences are available online from roughly 100 companies, which print the DNA and ship it to their customers.

This arrangement has long raised concerns that malign actors could synthesize the DNA to make a powerful toxin or even a pathogen capable of triggering another global pandemic. In 2010, the U.S. government released voluntary guidelines for DNA synthesis companies, recommending that they vet customers and screen ordered sequences against known dangers. Members of an industry group called the International Gene Synthesis Consortium, which carry out the majority of DNA synthesis worldwide, agreed to abide by the standards. But attempts to mandate such guidelines “have been really, really slow,” says Elizabeth Cameron, a biosafety expert at Brown University who previously worked on biodefense issues at the White House.

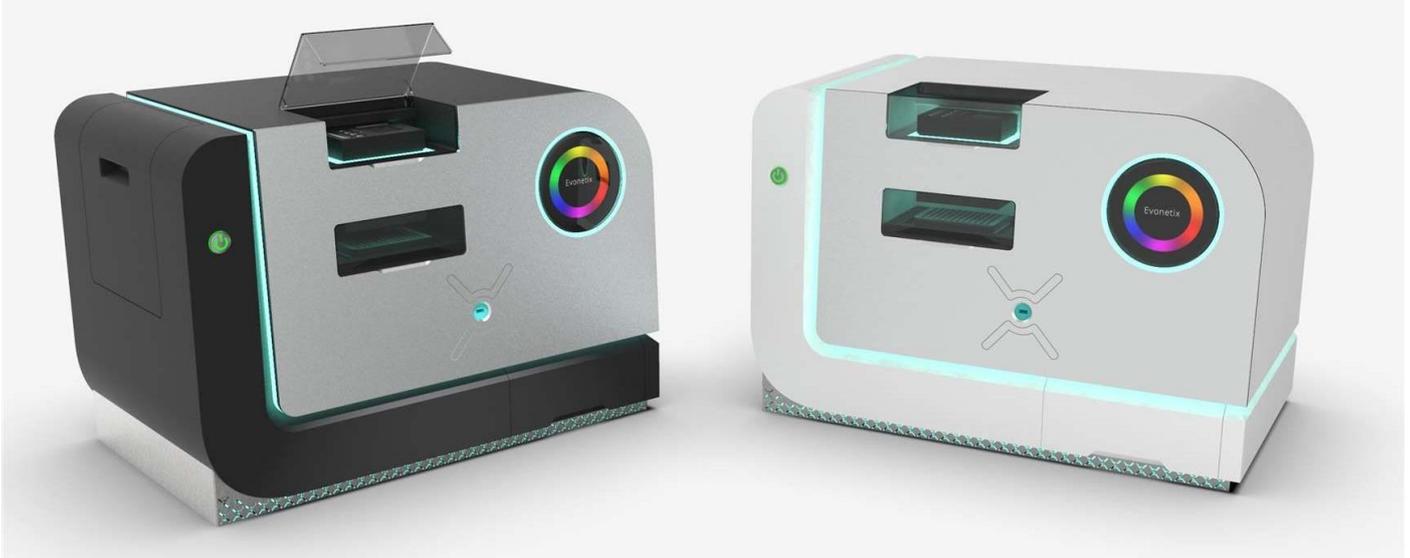
Advances in DNA synthesis technology will heighten those concerns, says the report, by offering any lab the chance to buy a benchtop DNA printer that can make DNA on demand. Over the next 2 to 5 years, the report notes, the length of stretches of DNA that can be synthesized with these machines will likely increase from about 200 base pairs today to as many as 7000 base pairs, the size of the smallest viruses.

The report’s authors argue that these advances will speed up synthetic DNA production and biological research. But they could also undermine the current system of voluntary oversight, as the longer lengths of DNA from these machines make it easier to splice together large pathogen genomes. “There is a greater potential for misuse and pathogen engineering,” says Sarah Carter, head of Science Policy Consulting LLC and a co-author.



The report recommends that benchtop synthesis devicemakers vet their customers to ensure they are legitimate biotechnology researchers. It also calls for built-in protections, such as software that allows the manufacturer to screen all requests for DNA sequences prior to synthesis. Governments should update their voluntary guidelines for customer and sequence screening, the report adds, and adopt mandatory requirements applying to devices operating within their borders. Biotech funding agencies and journals also need to adopt tighter customer and sequence screening practices, it says.

Mike Daniels, who heads product development at **Evonetix**, a DNA synthesis devicemaker, hopes tougher, universal standards will



prevent a race to the bottom, in which companies eliminate biosafety measures to save money. “We need a strong and clear baseline of minimally acceptable standards,” says Daniels, who supports the report’s recommendations. “This will make sure there is a level playing field.” Kevin Esvelt, a biotechnologist at the Massachusetts Institute of Technology, agrees. “If we’re going to take pandemic nonproliferation anywhere near as seriously as we take nuclear nonproliferation, we need to ensure that every future synthesis device, benchtop and otherwise, securely and confidentially screens for an up-to-date list of hazards.”

But getting governments to work out and adopt new regulations quickly will be a challenge, Cameron says, adding that the clock is ticking. “Benchtop synthesis is here,” she says. “We really need to do this now.”

The COVID public health emergency ends today. Is the country prepared for another pandemic?

By Matt Field

Source: <https://thebulletin.org/2023/05/the-covid-public-health-emergency-ends-today-is-the-country-prepared-for-another-pandemic/>

May 11 – It’s a wrap. After more than three long years, the public health emergency for COVID-19 in the United States is ending. The Biden administration in February announced that the measure, first invoked in March 2020, would expire today. Alongside the US decision, the World Health Organization (WHO), similarly [ended](#) its public health emergency of international concern designation for COVID. By many measures, the impact of the virus—both in the United States and around the world—is receding, but experts warn that could change if and when a new immune-evasive variant crops up.

COVID deaths have been [dropping](#) steadily [this year](#). Between April 27 and May 3, a little over 1,100 people in the United States died. Some 70 percent of the country has received primary vaccinations and, as of late last year, [half the country](#) said they had been infected by the COVID virus. Consequently, the United States now has a considerable amount of immunity against the disease. The current weekly death rate, if it holds, would mean that COVID will continue to exact a high yearly toll, similar to that of [a bad flu season](#). Of course, a new viral variant could emerge, experts say, or, as other threats like H5N1 avian influenza lurk in the shadows, an entirely new pandemic could strike.

How serious is a COVID infection now?

Already by [last fall](#), support for masking and vaccine requirements had plummeted, with just a quarter of survey respondents in the United States supporting masking and one-third supporting vaccine mandates,



according to *CBS News*. Abandoning these measures puts people at greater risk of COVID infection—but by the same token, the consequences appear to be less dire than at earlier points in the pandemic, when weekly deaths in the United States were many times higher than they are now. Experts [disagree](#) on the true risk of COVID, however, with some saying it's akin to the flu and others disagreeing.



Boats guide a hospital ship off of New York City in 2020. Credit: John Q. Hightower/US Coast Guard.

The Biden administration [said](#) Tuesday that due to vaccines, tests, and therapeutics, “COVID-19 is no longer the disruptive force it once was. Since January 2021, COVID-19 deaths have declined by 95% and hospitalizations are down nearly 91%.”

And, of course, death and hospitalization are not the only adverse consequences of COVID-19. Long COVID [continues](#) to be a risk even as the more easily measurable pandemic trends decline. As of January, [28 percent of people](#) who had ever had COVID in the United States reported having had or still having long COVID, which can include symptoms such as fatigue or heart palpitations. That figure, though, is down from 35 percent in June 2022.

What will lifting the pandemic emergency mean?

The Biden administration said that access to free vaccines will continue, even as the “traditional healthcare market” takes over. While most people will receive free vaccinations, [according](#) to *Reuters*, they may have to pay for at least a portion of the cost for tests and treatments going forward. A big concern will be the comprehensiveness of public health data. Data on cases and vaccinations is critical to controlling the spread of infectious diseases, but the ability of the US government to collect this information will diminish after the COVID emergency ends. South Carolina, for instance, doesn't allow the sharing of vaccination data except in certain cases, like a public health emergency, according to *The Washington Post*. Health care facilities nationwide will no longer be required to report test results. And, more broadly, the way data is reported from clinics, to local health departments, to state health agencies, and then to the federal government is “inconsistent and fragmented,” [according](#) to the *Post's* Lena H. Sun. With the end of the emergency declaration, and as public attention to COVID



dwindles, efforts to improve public health data collection could also lose steam. The CDC will have less ability to collect COVID data, the agency said. That means, according to [Reuters](#), that the color-coded COVID-19 Community Levels system that the agency has been updating will cease, although another measure based on hospital admissions will continue. “We will still be able to tell that it’s snowing, even though we’re no longer counting every snowflake,” CDC Principal Deputy Director Dr. Nirav Shah said in a press call. What does the future hold? As has happened repeatedly during the pandemic, a new variant could spell another surge in cases. Experts told the White House recently that there’s about a 20 percent chance in the next two years that a variant causes an omicron-like surge in cases. After the omicron variant was [first detected in](#) South Africa in late 2021, cases sky rocketed around the world. In the United States some 700,000 cases a day were being reported in January before the numbers began to declining sharply. Since then, omicron has spawned new so-called “subvariants,” although none has caused the disruption of the original strain.

“We have continued detection of ‘[cryptic lineages](#)’ in wastewater surveillance, suggesting that it’s not uncommon to have run-away evolution of a persistent infection within a single individual,” Fred Hutchinson Cancer Center computational biologist Trevor Bedford, one of the experts who shared his projections with the White House, [told](#) *The Washington Post*. The Biden administration [wants](#) to keep a lid on COVID by continuing to develop countermeasures. It’s set aside \$5 billion in funding for new vaccine development, including nasal vaccines that could help block infection better than the current shots or vaccines that target an array of coronaviruses instead of just a couple of strains of SARS-CoV-2—the virus that causes COVID. But that funding, which will come from unspent COVID funds, could be at risk due to the ongoing budget dispute in Congress, which wouldn’t provide new money for the program. Republicans want to reclaim the unspent federal pandemic aid. Experts worry about leaving the fight against COVID in the review mirror. “Even if the pandemic is over, endemic covid is still going to be a major public health concern,” Bedford told the *Post*.

Are we ready for another pandemic?

The country and the world remain vulnerable. H5N1, for instance—a bird flu strain which has been causing outbreaks in wild and domesticated poultry—has affected numerous mammals by this point, including farmed ferrets. Experts worry [it could evolve](#) to become easily transmissible among humans. [Climate change](#), [farming practices](#), human [encroachment](#) into wildlife areas, and [laboratory safety practices](#), likewise could present a risk of another disastrous disease outbreak.

Perhaps most worrisome, the public health sector that would respond to a future pandemic has been gutted. Older employees are retiring and younger ones are leaving, with some [70,000 workers](#) are at risk of leaving public health jobs in the next year. That number will come from a workforce that comprised 200,000 workers at the start of the pandemic, Kimberly Ma, a fellow for the *Bulletin* calculated in a recent column. Future vaccination campaigns, data analysis efforts, and other essential tasks will rely on this workforce—which, Ma said, may be “less prepared for a pandemic than it was in late 2019.”

Francis Collins, the former director of the National Institutes of Health, [told](#) *The New York Times*, “No,” when asked whether the country was ready for another pandemic. Other officials also sound less than reassuring.

“We’ve learned a lot from Covid,” US Health Secretary Xavier Becerra told the *Times*. “We’re prepared to deal with Covid—even some of the variants as they come. If it’s something totally different, avian flu, I become a little bit more concerned. If it becomes some kind of biological weapon, you know, that’s another issue altogether.”

[Matt Field](#) is editor, biosecurity at the Bulletin of the Atomic Scientists. Before joining the Bulletin, he covered the White House, Congress, and presidential campaigns as a news producer for Japanese public television. He has also reported for print outlets in the Midwest and on the East Coast. He holds a master’s degree in journalism from Northwestern University.

Machine learning links unresolving secondary pneumonia to mortality in patients with severe pneumonia, including COVID-19

By Catherine A. Gao, Nikolay S. Markov, Thomas Stoeger, et al.

Journal of Clinical Investigation | April 27, 2023

Source ([full text](#)): <https://www.jci.org/articles/view/170682/pdf>



BACKGROUND. Despite guidelines promoting the prevention and aggressive treatment of ventilator-associated pneumonia (VAP), the importance of VAP as a driver of outcomes in mechanically ventilated patients, including patients with severe COVID-19, remains unclear. We aimed to determine the contribution of unsuccessful treatment of VAP to mortality in patients with severe pneumonia.

METHODS. We performed a single-center prospective cohort study of 585 mechanically ventilated patients with severe pneumonia and respiratory failure, 190 of whom had COVID-19, who underwent at



least one bronchoalveolar lavage. A panel of ICU physicians adjudicated pneumonia episodes and endpoints based on clinical and microbiologic data. Given the relatively long ICU length of stay among patients with COVID-19, we developed a machine learning states characterized primarily by respiratory failure. While VAP was not associated with mortality overall, mortality was higher in patients with one episode of unsuccessfully treated VAP compared with successfully treated VAP (76.4% versus 17.6%, $P < 0.001$). In all patients, including those with COVID-19, *CarpeDiem* demonstrated that unresolving VAP was associated with transitions to clinical states associated with higher mortality.

CONCLUSIONS. Unsuccessful treatment of VAP is associated with greater mortality. The relatively long length of stay among patients with COVID-19 is primarily due to prolonged respiratory failure, placing them at higher risk of VAP.

Here's How We Can Rebuild Trust in Vaccines

By Ann Thomas, MD, MPH

Source: <https://www.medscape.com/viewarticle/991820>



May 11 – When people ask Paul Offit, MD, what worries him the most about the COVID-19 pandemic, he names two concerns. "One is the lack of socialization and education that came from keeping kids out of school for so long," Offit told *Medscape Medical News* in a recent interview. "And I think vaccines have suffered."

Offit is director of the Vaccine Education Center and a professor of pediatrics at Children's Hospital of Philadelphia. He has watched with alarm as the American public appears to be losing faith in the lifesaving vaccines the public health community has worked hard to promote. The Centers for Disease Control and Prevention [estimates](#) that the proportion of kids entering kindergarten who have received state-required vaccines dipped to 94% in the 2020–2021 school year — a full point less than the year before the pandemic — then dropped by another percentage point, to 93%, the following year.

Although a couple of percentage points may sound trivial, were only 93% of kindergarteners to receive the vaccine against [measles](#), mumps, and [rubella](#) (MMR), approximately 250,000 vulnerable 5-year-olds could spark the next big outbreak, such as the [recent measles outbreaks in Ohio and Minnesota](#).

Offit is one of many public health officials and clinicians who are working to reverse the concerning trends in pediatric vaccinations. Their efforts combine conventional approaches, such as community outreach, with newer strategies, including using social media and even lending a sympathetic ear to parents voicing anti-science imaginings.

"I just don't want to see an outbreak of something that we could have avoided because we were not protected enough," Judith Shlay, MD, associate director of the Public Health Institute at Denver Health, said.

Official Stumbles in Part to Blame

Disruptions in healthcare from the COVID-19 pandemic certainly played a role in the decline. Parents were afraid to expose their children to other sick kids, providers shifted to a telehealth model, and routine preventive care was difficult to access.

But Offit also blamed erosion of trust on mistakes made by government and public health institutions for the alarming trend. "I think that healthcare professionals have lost some level of trust in the Food and Drug Administration [FDA] and CDC."

He cited as an example poor messaging during a large outbreak in Massachusetts in summer 2021, when [CDC published](#) a report that highlighted the high proportion of COVID-19 cases among vaccinated people. Health officials called those cases "breakthrough" infections, although most were mild or asymptomatic.

Offit said the CDC should have focused the message instead on the low rate (1%) of hospitalizations and the low number of deaths from the infections. Instead, they had to walk back their promise that vaccinated people didn't need to wear masks. At other times, the [Biden administration pressured public health officials](#) by promising to make booster shots available to the American public when FDA and CDC felt they lacked evidence to recommend the injections.

Rupali Limaye, PhD, an associate professor of international health at the Bloomberg School of Public Health at Johns Hopkins University, in Baltimore, studies vaccine behavior and decision-making. She would go a step further in characterizing the roots of worsening vaccine hesitancy.

"In the last 20 years, we've seen there's [less and less trust](#) in healthcare providers in general," Limaye said. "More people are turning to their social networks or social contacts for that kind of information." In the maelstrom of the COVID-19 pandemic, digital social networks facilitated the spread of misinformation about COVID-19 faster than scientists could unravel the mysteries of the disease.

"There's always been this underlying hesitancy for some people about vaccines," Shlay said. But she has noticed more resistance to the COVID-19 vaccine from parents nervous about the new mRNA technology.



"There was a lot of politicization of the vaccine, even though the mRNA vaccine technology has been around for a long time," she said.

Multipronged Approaches

Shlay is committed to restoring childhood vaccination uptake to prepandemic levels now that clinics are open again. To do so, she is relying on a combination of quality improvement strategies and outreach to undervaccinated populations.

Denver Health, for instance, offers vaccinations at any inpatient or outpatient visit — not just well-child visits — with the help of alerts built into their electronic health records that notify clinicians if a patient is due for a vaccine.

COVID-19 revealed [marked health inequities](#) in underserved communities as Black, Hispanic, and people from other minority communities experienced higher rates of COVID-19 cases and deaths compared to White people. [The Public Health Institute](#), which is part of Denver Health, has responded with vaccine outreach teams that go to schools, shelters, churches, and community-based organizations to vaccinate children. They focus their efforts on areas where immunization rates are low. [Health centers](#) in schools throughout Colorado vaccinate students, and the Public Health Institute partners with Denver-area public schools to provide vaccines to students in schools that don't have such centers. (They also provide dental care and behavioral health services.)

But it is unlikely that restoring clinic operations and making vaccines more accessible will fill the gap. After 3 years of fear and mistrust, parents are still nervous about routine shots. To help clinicians facilitate conversations about vaccination, Denver Health trains providers in communication techniques using [motivational interviewing](#) (MI), a collaborative goal-oriented approach that encourages changes in health behaviors.

Shlay, who stressed the value of persistence, advised, "Through motivational interviewing, discussing things, talking about it, you can actually address most of the concerns."

Giving Parents a Boost in the Right Direction

That spirit drives the work of [Boost Oregon](#), a parent-led nonprofit organization founded in 2015 that helps parents make science-based decisions for themselves and their families. Even before the pandemic, primary care providers needed better strategies for addressing parents who had concerns about vaccines — and found themselves failing in the effort while trying to see 20 patients a day.

For families that have questions about vaccines, Boost Oregon holds community meetings in which parents meet with clinicians, share their concerns with other parents, and get answers to their questions in a nonjudgmental way. The 1- to 2-hour sessions enable deeper discussions of the issues than many clinicians can manage in a 20-minute patient visit.

Boost Oregon also trains providers in communication techniques using MI. Ryan Hassan, MD, a pediatrician in private practice who serves as the medical director for the organization, has made the approach an integral part of his day. A key realization for him about the use of MI is that if providers want to build trust with parents, they need to accept that their role is not simply to educate but also to listen.

Even if it's the wildest conspiracy theory I've ever heard, that is my opportunity to show them that I'm listening, and to empathize. Dr Ryan Hassan

"Even if it's the wildest conspiracy theory I've ever heard, that is my opportunity to show them that I'm listening and to empathize," Hassan told Medscape.

His next step, a central tenet of MI, is to make reflective statements that summarize the parent's concerns, demonstrate empathy, and help him get to the heart of their concerns. He then tailors his message to their issues.

Hassan tells people who are learning the technique to acknowledge that patients have the autonomy to make their own decisions. Coercing them into a decision is unhelpful and potentially counterproductive. "You can't change anyone else's mind," he said. "You have to help them change their own mind."

Limaye reinforced that message. Overwhelmed by conflicting messages on the internet, people are just trying to find answers. She trains providers not to dismiss patients' concerns, because dismissal erodes trust.

"When you're dealing with misinformation and conspiracy, to me, one thing to keep in mind is that it's the long game," Limaye said, "You're not going to be able to sway them in one conversation."

Can the powers of social media be harnessed for pro-vaccine messaging? Limaye has studied [social media strategies to promote vaccine acceptance](#) and has identified several elements that can be useful for swaying opinions about vaccine.

One is the messenger — as people trust their physicians less, "it's important to find influencers that people might trust to actually spread a message," she said. Another factor is that as society has become more polarized, interaction with the leadership of groups that hold influence has become key. To promote



vaccine acceptance, for example, leaders of moms' groups on Facebook could be equipped with evidence-based information. "It's important for us to reach out and engage with those that are leaders in those groups, because they kind of hold the power," Limaye said.

Framing the message is critical. Limaye has found that personal narratives can be persuasive and that to influence vaccine behavior, it is necessary to tailor the approach to the specific audience. Danish researchers, for example, in 2017 [launched a campaign](#) to increase uptake of HPV vaccinations among teenagers. The researchers provided facts about the safety and effectiveness of the vaccine, cited posts by clinicians about the importance of immunization against the virus, and relayed personal stories, such as one about a father who chose to vaccinate his daughter and another about a blogger's encounter with a woman with [cervical cancer](#). The researchers found that the highest engagement rates were achieved through personal content and that such content generated the highest proportion of positive comments.

According to Limaye, to change behavior, social media messaging must address the issues of risk perception and self-efficacy. For risk perception regarding vaccines, a successful message needs to address the parents' questions about whether their child is at risk for catching a disease, such as measles or [pertussis](#), and if they are, whether the child will they wind up in the hospital.

Self-efficacy is the belief that one can accomplish a task. An effective message would provide information on where to find free or low-cost vaccines and would identify locations that are easy to reach and that have expanded hours for working parents, Limaye said.

What's the best approach for boosting vaccination rates in the post-pandemic era? In the 1850s, [Massachusetts enacted the first vaccine mandate](#) in the United States to prevent smallpox, and by the 1900s, similar laws had been passed in almost half of states. But recent polls suggest that support for vaccine mandates is dwindling. In a [poll by the Kaiser Family Foundation](#) last fall, 71% of adults said that healthy children should be required to be vaccinated against measles before entering school, which was down from 82% in a similar poll in 2019.

So perhaps a better approach for promoting vaccine confidence in the 21st century would involve wider use of MI by clinicians and more focus by public health agencies taking advantage of the potential power of social media. As Offit put it, "I think trust is the key thing."

[Ann Thomas is a pediatrician and epidemiologist living in Portland, Oregon.](#)

Human DNA Is All Over the Planet, And Scientists Are Worried

Source: <https://www.sciencealert.com/human-dna-is-all-over-the-planet-and-scientists-are-worried>



May 16 – Every skin flake, hair follicle, eyelash, and spit drop cast from your body contains instructions written in a chemical code, one that is unique to you.

According to a new study, technology has advanced to the point that it's now possible to sift scraps of human DNA out of the air, water, or soil and decipher personal details about the individuals who dropped them.

As useful as this might seem, the study's authors warn society might not be prepared for the consequences.

"Any time we make a technological advance, there are beneficial things that the technology can be used for and concerning things that the technology can be used for," [says](#) University of Florida zoologist David Duffy, who led a project that tested the limits of sequencing human DNA from the environment.

"These are issues we are trying to raise early so policy makers and society have time to develop regulations."

Earth's surface is dusted in discarded plant and animal cells and disintegrated microbes, spilling out what researchers refer to as environmental or 'e' DNA.

By amplifying the smallest scraps of eDNA and reading the sequences, researchers can [accurately produce an ecological cast list](#) of organisms present in any one habitat, all at speeds and costs that couldn't be achieved by field work.

What's more, those representative genetic samples can also deliver insights that no other process could accomplish on their own, such as informing researchers on the presence of diseases or the relationships between populations.

This is all well and good when zoologists are [plucking long lost genes](#) from ancient sediment, or [fishing for signs](#) of a mythological monster in Loch Ness. But in that genetic soup there are bound to be strands of material left by passing humans as well. And unlike Nessie, people tend to get a little funny about who snoops on their genetic secrets.

While older methods of sequencing have struggled to find meaningful human genetic sequences within eDNA samples, a process known as [shotgun sequencing](#) isn't quite so limited, as demonstrated by Duffy and his team in their recent investigation.



The research team took water and sand samples from near the Whitney Laboratory for Marine Bioscience and Sea Turtle Hospital at the University of Florida, and from environments along a river in Duffy's home country of Ireland. Among the sites they collected samples from was an isolated island and a mountain stream far from human habitation.

Referred to as human genetic bycatch (HGB), many of the chromosomal fragments they identified using the shotgun approach contained identifying information about their source.

Only the island and remote stream were free of human DNA, although traces of the research team's own genes could be extracted from their footprints in the isolated island's sand.

Air samples from the university's sea turtle hospital also contained eDNA that could be traced to staff, animals, and common animal [viruses](#).

"We've been consistently surprised throughout this project at how much human DNA we find and the quality of that DNA," [says](#) Duffy.

"In most cases the quality is almost equivalent to if you took a sample from a person."

It's easy to think of ways such highly detailed genetic assays using HGB might be applied in fields of epidemiology or population genetics. Yet the sources of the identifiable DNA in this experiment all consented to be involved in the study, in line with the ethics of published genetic research.

"It's standard in science to make these sequences publicly available. But that also means if you don't screen out human information, anyone can come along and harvest this information," [says](#) Duffy.

"That raises issues around consent. Do you need to get consent to take those samples? Or institute some controls to remove human information?" As a forensics tool, the benefits are something of a doubled-edged sword, expanding on methods for tracing individuals to a scene of a crime. Yet in light of [the CSI effect](#), where the results of DNA testing is easily misinterpreted by a Hollywood-influenced judiciary, the legal consequences of HGB identification are also yet to be fully explored.

There is also the concern of how far public surveillance should extend in the name of security.

"To be sure, solving crime is a good thing," [says](#) Natalie Ram, a law expert from the University of Maryland who wasn't involved in the study. "But exploiting involuntarily shed genetic information for investigative aims risks putting all of us under perpetual genetic surveillance." We might imagine an authority maintaining an archive of DNA scraps that have drifted onto just about any crime scene, one few of us would feel comfortable being a part of.

It's far from the first time society has wrestled with the ethical and legal questions of [genetic rights](#), of course. But the net collecting personal genetic information is clearly growing, prompting us to continue asking who should have the ultimate say over the unique code that describes us as individuals.

●► This research was published in [Nature Ecology and Evolution](#).

COVID-19's Total Cost to the U.S. Economy Will Reach \$14 Trillion by End of 2023: New Research

By Jakub Hlávka and Adam Rose

Source: <https://www.homelandsecuritynewswire.com/dr20230516-covid19-s-total-cost-to-the-u-s-economy-will-reach-14-trillion-by-end-of-2023-new-research>

May 16 – The economic toll of the COVID-19 pandemic in the U.S. [will reach US\\$14 trillion](#) by the end of 2023, [our team](#) of [economists](#), [public policy researchers](#) and [other experts](#) have estimated.

Putting a price tag on all the pain, suffering and upheaval Americans and people around the world have experienced because of COVID-19 is, of course, hard to do. More than [1.1 million people](#) have died as a result of COVID-19 in the U.S., and many more have been hospitalized [or lost loved ones](#). Based on data from the first 30 months of the pandemic, we forecast the scale of total economic losses over a four-year period, from January 2020 to December 2023.

To come up with our estimates, our team used economic modeling to approximate the revenue lost due to mandatory business closures at the beginning of the pandemic. We also used modeling to assess the economic blows from the many changes in personal behavior that continued long after the lockdown orders were lifted – such as avoiding restaurants, theaters and other crowded places. Workplace absences, and sales lost due to the cessation of brick-and-mortar retail shopping, air travel and public gatherings, contributed the most. At the height of the pandemic, in the second quarter of 2020, our survey indicates that international and domestic airline travel fell by nearly 60%, indoor dining by 65% and in-store shopping by 43%. We found that the three sectors [that lost the most ground](#) during the first 30 months of the



ICI C²BRNE DIARY – May 2023

pandemic were air travel, dining, and health and social services, which contracted by 57.5%, 26.5% and 29.16%, respectively. These losses were offset to a degree by surges in online purchases, a series of large [fiscal stimulus and economic relief packages](#) and an unprecedented expansion of the number of [Americans working from home](#) – and thus were able to keep doing jobs that might otherwise have been cut.

From 2020 to 2023, the cumulative net economic output of the United States will amount to about [\\$103 trillion](#). Without the pandemic, the total of GDP over those four years would have been \$117 trillion – nearly 14% higher in inflation-adjusted 2020 dollars, according to our analysis. We also simulated four different possible economic outcomes had the number of COVID-19 deaths been different because of either more or less successful public health strategies in the first 30 months of the pandemic.

The direct health expenses, driven mostly by hospitalization costs in these scenarios, would have totaled \$20 billion in a best-case scenario in which 65,000 Americans would have died from January 2020 to June 2022. In the worst-case scenario, about 2 million would have died during that period, with \$365 billion in direct health-related expenses.

Based on our findings, most economic losses were not due to these health care expenditures.

Decline in U.S. economic activities due to COVID-19

Revenue from air travel, indoor dining, and participation in large in-person gatherings fell by more than 50% during the first 30 months of the COVID-19 pandemic. Changes in the public's behavior, brought about by regulations and personal health concerns, caused the decline.

Air travel Domestic flights – 57% International flights – 58%	Recreation Outdoor recreational activities – 23% Indoor recreation – 56%
Local travel Ride-sharing – 46% Transit – 47%	Large in-person events Conferences – 57% Religious – 59% Political – 63% Entertainment – 69%
Dining & retail Food delivery and to-go orders – 8% In-store grocery shopping – 42% In-store retail shopping – 43% Outdoor dining – 63% Indoor dining – 65% Bars – 69%	

Data spans March 2020 to June 2022.

Chart: *The Conversation*, CC-BY-ND; Source: [Economic Modelling](#) Get the data [Download image](#); Created with [Datawrapper](#)

Why It Matters

The COVID-19 pandemic's economic consequences are unprecedented for the U.S. by any measure. The toll we estimate that it took on the nation's gross domestic product is [twice the size of that of the Great Recession](#) of 2007-2009. It's 20 times greater than the economic costs of the 9/11 terrorist attacks and 40 times greater than the toll of any other disaster to befall the U.S. in the 21st century to date.

Although the federal government has now [lifted its COVID-19 Public Health Emergency declaration](#), the [pandemic is still influencing the U.S. economy](#). The [labor force participation rate](#), which stood at 62.6% in April 2023, has only recently neared the February 2020 level of 63.3%.

What Is Not Known

We modeled only the pandemic's standard economic effects. We didn't estimate the vast array of [economic costs tied to COVID-19](#), such as lost years of work after an early death or a severe case of long-COVID-19.

We also didn't assess the costs due to the many ways that the disease has affected the physical and mental health of the U.S. population or the [learning loss experienced by students](#).

Jakub Hlávka is Research Assistant Professor of Health Policy and Management; Schaeffer Center Fellow, University of Southern California.

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DNA Synthesis is Getting Easier Every Year and So is Bioterrorism

By Henry Stater

Source: <https://www.business2community.com/tech-news/dna-synthesis-is-getting-easier-every-year-and-so-is-bioterrorism-02692207>

May 16 – The advent of benchtop machines capable of printing DNA sequences from online data banks is causing a stir among biosecurity specialists.

The non-profit Washington D.C. think tank [Nuclear Threat Initiative \(NTI\)](#) released a report detailing its concerns regarding the technology and proposed strategies for mitigating its risks. It believes that the current, voluntary screening system for these machines is insufficient to protect the country and the world from bioterrorism.



What's the Big Risk?

Biologists have been able to synthesize DNA for about 40 years and this ability has been incredibly important in a wide variety of industries and sciences. It is used to develop new medicines, improve agricultural products and much more.

The DNA synthesis process has improved tremendously since it was first possible. There are a multitude of companies that can synthesize DNA for a fee, which is becoming cheaper and cheaper every year.

An efficient and (relatively) affordable DNA printing machine would represent a significant advancement in the technology. It could also increase the risk of bioterrorism. The [NTI](#) believes that the current regulatory framework for DNA synthesis is woefully insufficient already.

Many DNA synthesis companies have important safeguards in place to make sure that its customers are creating bioweapons. However, the US government does not yet force them to vet customers or screen the requested DNA sequences.

Furthermore, the NTI worries that as DNA synthesis techniques improve and become easier and cheaper, terrorists could create another horrific global pandemic with relative ease. That's why the NTI is advocating for the government to establish strict guidelines on DNA synthesis to prevent such a scenario.

[DNA synthesis techniques](#) are improving all the time, allowing for longer and more complex sequences. Right now it can't entirely synthesize DNA long enough to create a deadly virus from scratch but bad actors don't need it to.

Theoretically, it likely wouldn't be difficult for a terrorist group with biology experts to insert a smaller synthesized piece of DNA into a common virus or bacteria to make it exponentially more transmissible and deadly.

As DNA synthesis techniques improve and become more affordable, the risk of such a scenario only escalates. The larger strands bad actors can produce, the easier it would be to splice them together to create a deadly pathogen.

The NTI, along with other experts, believe that the issue of DNA synthesis regulation is as critical as nuclear nonproliferation. They urge the US government to establish necessary screening and vetting guidelines before the technology advances further.

Architecture After COVID: How the Pandemic Inspired Building Designers

By Albena Yaneva

Source: <https://www.homelandsecuritynewswire.com/dr20230517-architecture-after-covid-how-the-pandemic-inspired-building-designers>

May 17 – [Walking during lockdowns](#), following protocols and restrictions, city dwellers witnessed the birth of a new architectural aesthetic.

Concern with infection began gradually redefining the space of cities and the social choreography of daily urban life. This has led to a radical rethinking of the limits of architecture. I explored these changes in my new book, [Architecture After COVID](#).

It now seems absurd to think about architecture purely in terms of aesthetics or technology. As a greater awareness of hygiene in cities emerged, urban spaces and buildings were reorganized in order to minimize physical surface contact.

Contactless design environments became so pervasive that people must now be encouraged, via signs and announcements, to use handrails to avoid the risk of falling. The public became afraid or skeptical of touching handrails, door handles, elevator buttons or any leaning support. Architects have had to adapt to these new design priorities and instincts.

COVID-Inspired Innovation

COVID has led to radical changes as architects have had to drastically rethink the "craft" of designing. Their techniques changed in terms of communication, documentation, technical innovation and unconventional ways of "meeting" clients or "visiting" construction sites.



To understand how this happened and better capture how the shift to online working has effected the craft of architects, I devised a small experiment with 130 practices from 40 different countries.

In the past I have engaged in lengthy observations of architects at work in different firms, following their work and [describing their working culture](#). The impossibility of visiting firms during the pandemic to engage in direct observation of their work prompted me to adapt techniques that could be practiced from a distance.

I asked firms to describe a situation that illustrated how their working routines adapted to COVID restrictions. Paying attention to the work of architects in a period of crisis – how they adjusted working methods and redefined priorities to be able to continue to design – highlighted key skills of the designers.

Be they in Buenos Aires or Amman, Los Angeles or Prague, Manchester or Shenzhen, what brought practitioners together was the attempt to rethink the dynamics of how they work.

How the Pandemic Has Changed Architectural Work

My study found three important changes in architectural practice. First, many architects returned to drawing and sketching, often enhanced electronically.

As drawing together in the studio became impossible, designers began expressing ideas in oral and written ways. These “returns” prompted design concepts to be clearly articulated beforehand, not in the process of spontaneous exchange around the table.

The pandemic also revived the profile of the perfectionist – the calculative pensive architect, the designer who thinks more than acts, the one who writes before sketching. It also freed designers from rigid hierarchies, unlocked the hidden potential of the youngest team members and turned the makers into writers and the shy into the vocal.

Second, the pandemic changed the “technological landscape” in design firms. Architects began rethinking their working methods, often implementing old technologies, software and storage solutions into their daily work. Some of these technologies and tools had been around since the 1990s but had never been introduced in practice.

Third, architects crafted new protocols and tactics for connecting and collecting feedback from clients and new ways of meeting and mobilizing their communities.

Some practices went as far as training representatives in territories they could not travel to. This helped them to act and speak like an architect and represent them on the ground.

Others conducted design and planning meetings on renovation sites. This resulted in resourceful solutions for crafting new relations with clients, communities and construction sites that enhanced the social skills of architectural professionals and the efficiency of their designs.

My study found no miraculous solutions to the challenges and the disruptions created by the COVID pandemic. Yet in their everyday, repetitive design work, architects generated numerous small innovations and adjustments that provided solutions. When they were repeated and adopted by others, these inventions propagated, often leading to bigger changes.

Architects appeared more than ever, as resourceful agents that make sense of complex situations and devise materially smart solutions.

[Albena Yaneva is Professor Architectural Theory, University of Manchester.](#)

Bird flu could become the next human pandemic – and politicians aren't paying attention

By Devi Sridhar

Source: <https://www.theguardian.com/commentisfree/2023/may/16/research-bird-flu-humans-prepare-now>

May 16 – Last month a pet dog in Canada died of H5N1, also known as bird flu, after eating a wild goose. Worryingly this follows a pattern, with an increasing number of bird flu cases appearing in mammals who come into contact with an infected bird, dead or alive.

When you see a wild bird such as a duck or seagull, think bird flu. Because it's actually more likely than not they're infected with the virus. And many species of wild birds are asymptomatic, meaning that they don't show any symptoms. The risk of transmission to pets is low, but they can get sick from chewing or eating an infected bird, whether it's dead or alive.



I first [wrote about bird flu in November](#), when domestic birds in Britain were put into an indoor lockdown. The virus had become endemic in most wild bird populations. It's incredibly infectious, where one bird could infect as many as 100 others. When infected wild birds encountered domestic birds (such as by flying over and defecating on them underneath), huge problems emerged. Avian flu has a near 100% fatality rate in most poultry, which led to shortages of not only turkey for Christmas but also eggs, as farm after farm was decimated by the disease. Since November, the signals emerging across the world continue to be worrying. In January and February this year, more than [3,000 sea lions died of bird flu in Peru](#) (where the death toll in wild birds reached an estimated 50,000). In Russia, 700 Caspian seals died. Then several [dolphins in Britain and the US died](#) of H5N1. Normally, even if an animal catches H5N1 from a bird, it can't pass it to other mammals. This limits its spread. But the large number of cases in these outbreaks suggest the possibility of mammal-to-mammal transmission, although this hasn't been confirmed yet by genetic sequencing. A more likely hypothesis is that these outbreaks are groups of animals feeding on infected birds. It is not yet 100% clear what's happening. But the risk of spread among mammals is ever-present. A [new research pre-print from Canada](#) showed that H5N1 samples could spread efficiently between ferrets with fatal outcomes. In order to spread efficiently to humans, H5 would need [three major categories of genetic changes](#), according to bird flu expert Prof Richard Webby. So far, the virus has been able to make one of these changes, but not the other two. So right now, H5N1 is a theoretical risk for the next human pandemic, rather than one requiring urgency in response today. And a prime minister or health secretary might say, "Why prepare for something that might never happen?" To those of us scientists working in global health, there are enough concerning signals that action should already be happening. So that if a certain set of mutations do occur and we see an outbreak in humans in Peru or China or Britain, that the harm it could cause is minimal. This is a disease with an estimated [50-60% fatality rate in humans](#), including children.

The [cornerstone of infectious disease preparedness](#) is in: surveillance (to know what strain is spreading and where in birds); testing (to identify disease quickly in humans); vaccines (for protection against disease and death); and antivirals (to improve clinical outcomes). The US government is already moving in this direction. Rebecca Katz, professor at Georgetown University Medical Center, has noted that a [H5 candidate vaccine virus recently produced](#) by the US Centers for Disease Control and Prevention is likely to provide good protection against the circulating H5N1 viruses.

The information has been shared with vaccine manufacturers to start the process of stockpiling adequate doses. But this is a challenge because most influenza vaccines are created by incubating doses in chicken eggs (called egg-based production). If bird flu has killed off many of the chickens, then egg shortages are likely. There's another H5N1 vaccine which is non-egg based, but they could have a maximum of 150m doses ready within six months. The world's population is almost 8 billion.

In addition, the FDA-approved antiviral treatments for seasonal influenza [could also work against bird flu](#). But again, getting doses to all parts of the world is a challenge given shortages. Preparation must also involve appropriate PPE for healthcare workers to protect against a respiratory disease (flu) and diagnostics to quickly identify if someone is infectious in hospitals.

All of these issues are solvable with precise planning, collaboration across countries, scientific ingenuity and good leadership. With post Covid-19 fatigue, the bigger problem is bringing the public along and communicating the facts so that they are trusted and believed. With so much – often understandable – mistrust in our current political leadership, authorities like chief medical officers and independent government advisers become crucial.

At the moment most governments aren't paying attention to bird flu: they're more interested in another AI (artificial intelligence) rather than this AI (avian influenza), but the avian influenza threat is real, and needs much more immediate attention and preparation.

[Devi Sridhar is chair of global public health at the University of Edinburgh.](#)

Long COVID Seems to Make Distinct Changes to The Immune System

Source: <https://www.sciencealert.com/long-covid-seems-to-make-distinct-changes-to-the-immune-system>

May 21 – Long COVID has [more than 200 potential symptoms](#) and can affect almost every organ in the body.

With more than [65 million people](#) now estimated to live with this often-disabling condition worldwide, and numbers growing daily, there is a desperate need to understand the underlying biology driving it.

There are currently [no effective treatments](#) and [no tests](#).

To find out more about this long COVID infection – or post-acute sequelae [SARS-CoV-2](#) (PASC), as it is increasingly being called – researchers at the US National Institute of Health did extensive testing on 12 people with long COVID and compared those results against a group of healthy volunteers who hadn't contracted COVID.

The researchers looked for abnormalities in blood samples, cerebrospinal fluid, and [MRI](#) scans, and they ran a series of tests to detect autonomic nervous system dysfunction.



The long COVID group was mostly middle-aged women who had mild SARS-CoV-2 infections around nine months ago and were now experiencing fatigue and cognitive difficulties that severely impacted their daily life.

One of the most apparent disparities between people with long COVID and healthy volunteers was the immune cell count.

Compared with the control group, participants with long COVID had decreased numbers of immune cells called [memory T cells](#); these cells usually persist for an extended period after infections, retaining the ability to recognize a specific threat and call the rest of the immune system rapidly to arms upon re-exposure.

COVID long haulers also had increased numbers of immune cells called [B cells](#), antibody-secreting B cells, and activated [natural killer cells](#), which detect and destroy damaged cells.

For those with long COVID, there was also an increase in immune checkpoint molecules like TIGIT and PD-L1 on immune cells, "suggesting the possibility of immune exhaustion", the researchers [wrote](#).

"The persistence of these immune abnormalities several months after a mild infection suggests the possibility of either a persistent infection or an aberrant immune response to the infection," the authors [wrote](#).

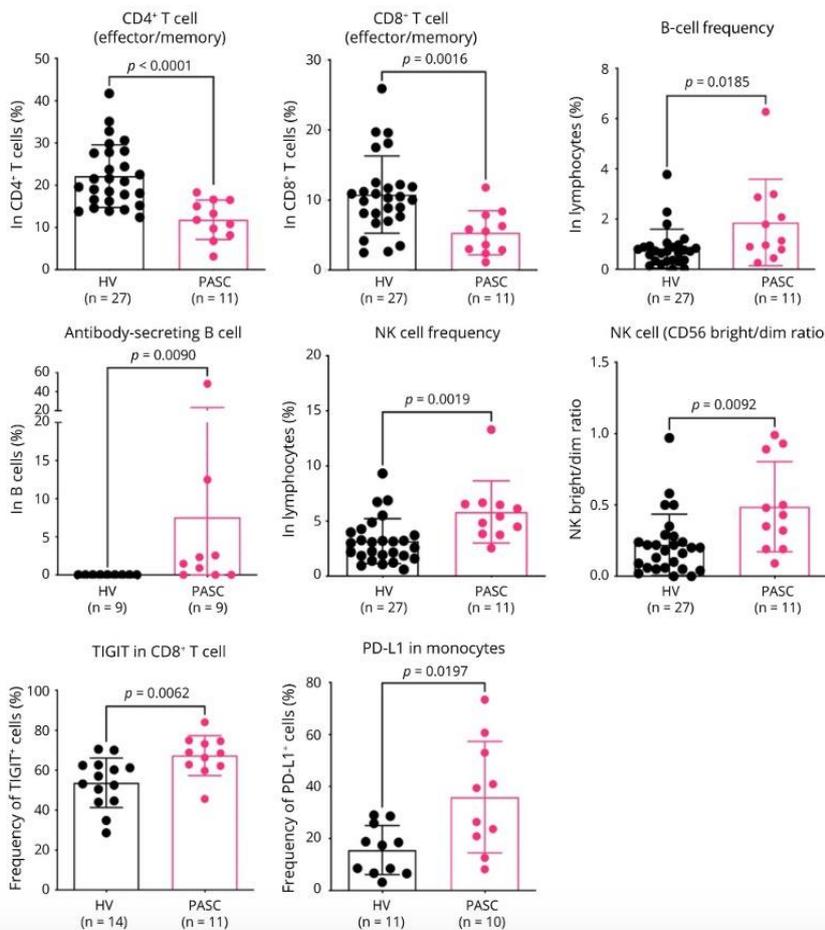
The study found many differences in the immune systems of healthy volunteers (HV) and people with long COVID (PASC). ([Mina et al., *Neuroimmunol. Neuroinflamm.*, 2023](#))

The researchers also examined dysfunction in the autonomic nervous system, which [controls heart rate, blood pressure, and breathing](#).

People with long COVID often report a racing heart, dizziness, and feeling faint when moving from a sitting to a standing position, known as [postural orthostatic tachycardia syndrome \(POTS\)](#).

To measure these effects, researchers monitored changes to heart rate and blood pressure during the [tilt-table test](#), where a person is moved from a lying to a standing position, and during the [Valsalva maneuver](#), where a person blows out air while keeping their nose and mouth shut, which usually slows the heart rate down.

They found that people with long COVID were less able to control their heart rate and blood pressure when these physiological pressures were



applied.

The researchers noted that the skin temperature was also lower in people with long COVID throughout the tilt-table test, suggesting vasoconstriction, where the blood vessels constrict and decrease blood flow to the skin.

While previous studies have suggested that long COVID's neurological symptoms could be due to inflammation in the brain stem and in the brain's olfactory bulb, which receives sensory inputs from the nose, the MRI did not identify any structural abnormalities in either region. More research is needed to make head or tail of all this, but this research does suggest that immunotherapies could be explored as a treatment for long COVID in [clinical trials](#).

"The preliminary findings [...] call for further investigation and for evaluation of potential immunomodulatory agents in an effort to decrease the huge public health burden of this syndrome," the researchers [write](#).

► This paper was published in [Neurology: Neuroimmunology & Neuroinflammation](#).





7 Things to Know About Bats and Pandemic Risk

Source: <https://www.medscape.com/viewarticle/992004>

May 18 – For millennia, bat viruses lurked in forests across West Africa, India, South America and other parts of the world. But, undisturbed, they posed little threat to humanity.

No longer, a new Reuters data analysis found. Today, as more and more people encroach on bat habitat, bat-borne pathogens pose an epidemiological minefield in 113 countries, where risk is high that a virus will jump species and infect humans.

Bats are linked to many of the deadliest disease outbreaks that occurred during the past half century – including the COVID-19 pandemic, which has killed at least 7 million people and has its roots in a family of bat-borne coronaviruses. Though scientists are still trying to figure out how that virus came to infect humans, dozens of other outbreaks can be traced to human incursions into areas thick with bats.

To examine where the next pandemic may emerge, Reuters used two decades of disease-outbreak and environmental data to pinpoint the places on the planet most vulnerable to "zoonotic spillover" – the term for when a virus jumps between species. Viruses leap from bats to humans either by way of an intermediary host, such as a pig, chimpanzee or civet, or more directly through human contact with bat urine, feces, blood, or saliva.

Reuters reporters spoke to dozens of scientists, read extensive academic research and traveled to bat-rich countries across the globe to learn how human destruction of wild areas is amplifying pandemic risk. Our data analysis – the first ever of its kind – revealed a global economic system colliding with nature and putting people's health at risk, as bat-rich forests are cleared to make way for farms, mines, roads and other development.

Here are key takeaways from our examination:

- Reuters found more than 9 million sq km on Earth where conditions in 2020 were ripe for a bat-borne virus to spill over, possibly sparking another pandemic. These areas, which we've dubbed "jump zones," span the globe, covering 6% of Earth's land mass. They are mostly tropical locales rich in bats and undergoing rapid urbanization.
- Nearly 1.8 billion people – more than one of every five of us – lived in areas at high risk for spillover as of 2020. That's 57% more people living in jump zones than two decades earlier, increasing the odds that a deadly bat virus could spill over. Moreover, those people are living closer together, intensifying the chances that a disease outbreak will develop into a fast-spreading global pandemic.
- The Reuters analysis found high spillover risk in locales including China, where COVID-19 surfaced; neighboring Laos, where scientists have identified the closest relatives in wildlife to the virus responsible for the current pandemic; India, where half a billion people live in fast-expanding jump zones, the most of any nation; and Brazil, which has the most land at risk of any country, as humans ravage the Amazon.
- The catalyst for outbreaks isn't bat behavior, scientists say, but our own. Thirst for resources – iron ore, gold, cocoa and rubber, to name a few – is driving unchecked development of wild areas and boosting the risk of global pandemics through greater contact with animals, scientists say. The world's jump zones have lost 21% percent of their tree cover in almost two decades' time, double the worldwide rate.
- Pressure on once-remote woodlands gives viruses a chance to spread and mutate as they leap among animal species, and eventually, into humans. The deadly Nipah virus in recent decades spilled over from Asian fruit bats into pigs, and from pigs into people. Nipah more recently has proven able to infect humans directly through contact with the bodily fluids of bats.
- Humanity is destroying crucial habitats before scientists have time to study them. Not only does development bring people into closer contact with pathogens that could have pandemic potential; it also eliminates secrets nature may hold that could be of value to science. For instance, bats' ability to live with multiple viruses, without succumbing to many that may be deadly for other mammals, could yield important knowledge for the creation of vaccines, medicines or other innovations.
- Governments and corporations are doing little to assess risk. In bat-rich Guinea, Sierra Leone, Liberia, Ivory Coast and Ghana – where Reuters found pandemic risk to be among the highest in the world – pending applications would double the territory used for mining exploration and extraction, to a total of 400,000 sq km, an area larger than Germany. Almost one-third of that expansion would be in existing jump zones, where spillover risk is already high. Though those countries require mining companies to assess potential environmental harms that new concessions might cause, none require companies to evaluate spillover risk.



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