



RUSSIAN DISINFORMATION ABOUT  
***BIOLOGICAL, CHEMICAL, NUCLEAR,  
AND RADIOLOGICAL THREATS***

VOX CHECK

# HOW DISINFORMATION HAS CHANGED OVER THE LAST 3 YEARS

The range of topics on which Russia spreads fakes is quite broad. Disinformation about biological, chemical, nuclear, and radiological threats holds a significant place. Since the beginning of the full-scale invasion, American biolaboratories in Ukraine became a top subject not only in Russian propaganda media but also promoted by state officials, including Russian President Vladimir Putin. The sharp increase in propagandists' attention to "biolaboratories" is not coincidental. This theme became one of the justifications for the full-scale aggression against Ukraine. The propagandists claimed that the so-called "American biolaboratories" posed a threat to Russia, allegedly with Kyiv developing "dangerous pathogens" capable of harming Russians. Thus, in the propagandists' imagination, the Kremlin appears as a "savior" starting a war to protect its own people. In 2022, Russians more frequently "found" biolaboratories in temporarily occupied territories, and now, disinformers report the exact locations of these laboratories in areas controlled by the Ukrainian government.



The narrative about the existence of "secret laboratories" is very beneficial for Russia, as it can "explain" outbreaks of various diseases even within its own country. In 2023, Vladimir Putin accused labor migrants, particularly from Ukraine, of increasing measles incidence in Russia. This same tactic is used today, for example, accusing Ukraine of botulism and African swine fever outbreaks in Russia.

According to the Russians, over the past three years, biolaboratories have even "moved" from Ukraine to Poland, the Baltic countries, and even Africa. However, claims about the existence of Ukrainian "biolaboratories" continued to appear, so likely, by the logic of propagandists, they "returned". Moreover, in 2023, the US "started building" new biolaboratories in Ukraine.

In 2024, the number of fakes about laboratories slightly decreased, but this topic continues to circulate in the information space. The core narrative remains unchanged, with only the fakes and methods of their creation varying – from simple distortion of cause-and-effect relationships, data manipulation, document forgery, and fabricated news to quoting pseudo-experts and low-quality foreign media.

Disinformation related to chemical threats was most actively spread by Russia at the beginning of the full-scale invasion. Initially, this narrative was used to discredit the Defense Forces, claiming that the Ukrainian side was allegedly preparing provocations. Later, Russians began to justify their own crimes in this way, shifting responsibility for using chemical weapons onto Ukraine.

At the beginning of 2023, there were "leaks" about alleged "American contractors" helping prepare provocations with this type of weapon. In 2024, Russians returned to this tactic. For example, reports significantly increased, claiming that the Armed Forces of Ukraine were preparing provocations using chemical weapons on the front and trying to destroy "chemically hazardous facilities" in the so-called "DPR/LPR". Within a few months, the Russian military "found" a chemical laboratory in Ukraine where weapons were

allegedly being manufactured. The method of creating such fakes also hardly changed – unconfirmed insights or rumors, screenshot forgery, document manipulation, and manipulation with words of Western officials – standard methods of Russian propaganda.

The number of fakes related to nuclear and radiological safety significantly increased at the end of 2021 and early 2022. Russians used the thesis about Kyiv's plans to create nuclear weapons as a justification for starting the full-scale invasion. Later, disinformation appeared, alleging that the Ukrainian authorities were making a "dirty bomb".

In 2023, the head of the Russian Foreign Intelligence Service, Sergey Naryshkin, repeated the thesis about the continued creation of a "dirty bomb". He called on the IAEA to "pay attention" to Ukraine's actions. With this "leak", the Russian leadership aimed to show the global community how "dangerous" Ukraine is and divert attention from placing military equipment at the Zaporizhzhia NPP. This year, Russians tried to present this fabrication as "insider" information from Andrii Derkach, a politician suspected of treason in Ukraine. According to propagandists, in 2024, Kyiv is still working on creating a "dirty bomb" and even "purchasing" uranium for these purposes.

After the Russians seized the Zaporizhzhia NPP, the narrative about the "danger Ukraine poses to the world" somewhat transformed. Propagandists accused Kyiv of shelling the station and nuclear blackmail while calling themselves "guarantors of the NPP's nuclear safety". The goal of these statements was again to justify aggression and the occupation of another country's nuclear facility. Since then, Russians constantly repeated this narrative on their broadcasts and international platforms.

In 2023, Russian propagandists were concerned about the transfer of depleted uranium shells to Ukraine by international partners, claiming these munitions would lead to a nuclear catastrophe. Additionally, as the arrival of F-16 aircraft in Ukraine approached,

the number of fakes about them also increased. For instance, Russian media reported that these planes could carry nuclear charges.

Propagandists spread fakes about radiological threats situationally. This was especially active after Russian shelling of Ternopil and Khmelnytskyi on May 13–14, 2023. Propagandists claimed that ammunition depots with depleted uranium exploded in these cities, significantly increasing radiation levels. Due to the proximity of Ternopil and Khmelnytskyi to the European border, disinformers claimed a "threat" not only to the rest of Ukrainian cities but also to Poland. To give more legitimacy to the information, they distorted messages from the Ukrainian authorities, manipulated information from international media, and created outright fabrications.

In the same year, Russian Foreign Ministry spokesperson Maria Zakharova claimed there was a likelihood of "dangerous, radioactive waste" leakage from the Prydniprovskiy Chemical Plant in Kamianske. However, she provided no evidence.

This year, they continue to resort to similar methods. However, now the topics are more general, such as Ukraine insufficiently controlling dangerous radioactive materials. Additionally, Russians are returning to fakes about experiments that the Ukrainian Armed Forces allegedly conducted on civilians. Besides the usual accusations of testing biological weapons and drugs on people, propagandists also pointed to supposed radiation effects on "test subjects".

For instance, Russian media, citing a Ukrainian prisoner of war, reported that soldiers of the Ukrainian Armed Forces, who were building strongpoints on the outskirts of Chernobyl, felt unwell due to radiation. The fake claimed that the military was denied anti-radiation drugs.

Thus, narratives on biological, chemical, nuclear, and radiological risks have not changed significantly. Instead, Russians continuously

try to invent new fakes for relevant informational occasions. Propagandists also refine and expand their tools for creating fakes. False messages without any justification still appear, but the Russian tactic has become somewhat more cautious. They not only spread outright fabrications but also manipulated the words of international officials, authoritative media, or institutions, and skillfully forged photos, sometimes even creating staged videos.

However, regardless of the methods and fakes, the goal remains the same – to discredit Ukraine on the international stage, portray it as a country posing a threat, and justify Russian aggression. Thanks to Russia's permanent representative to the UN, Vasily Nebenzya, this goal becomes achievable. With the diplomat's input, disinformation about biolaboratories and chemical weapons use spreads far beyond Russian or Ukrainian information spaces.

Despite the closure of the largest Russian resources in several European countries, fakes still continue to circulate in foreign media. This became possible thanks to a network of pro-Russian speakers and media in the West. Furthermore, propagandists increasingly spread fake reports on behalf of authoritative global media or create fake copies of these media's websites.

# CURRENT DISINFORMATION ON THIS TOPIC

(JUNE-JULY 2024)

Russia actively continues to spread disinformation related to biological, nuclear, radiological, and chemical threats.

For example, within the narrative about Western biolabs operating on Ukrainian territory and developing viruses, Russian propaganda claims that these labs are why Ukraine leads in COVID-19, Ebola, and Dengue fever cases.

Russian propagandists assert that diseases like African swine fever thrive in Ukraine due to the presence of these biolabs. They claim these labs do not comply with Ukrainian authority and have not published any reports since 2005. Additionally, Ukraine is supposedly one of the leading European countries in infectious and viral disease cases. They further allege that the Ukrainian government "sold the Ukrainian genome for inhumane experiments".

Moreover, Russian Deputy Speaker of the State Duma, Irina Yarovaya, claimed that bird flu was being developed in Ukraine. Russian propaganda repeats the claim that Hunter Biden, son of Joe Biden, oversees the biolabs in Ukraine and that the U.S. is conducting a military-biological "colonization" of Ukraine.

Russia also spreads disinformation that can be grouped under the narrative of chemical weapons production and use. For example, Russian claims state that near Avdiivka, Russian military forces discovered a "laboratory for chemical weapons production" containing American gas masks, Polish protective suits, and chemicals banned by international norms. Furthermore, they claim that Ukraine, along with Germany and the U.S., is preparing fabricated evidence of Russia using chemical weapons and that Ukraine has allegedly used non-lethal toxic substances 400 times since February 2022. These Russian narratives emerged after the Ukrainian Armed Forces' Support Command reported 715 documented cases of Russian use of dangerous chemical compounds in May 2024, a 271-case increase from April. In total, 2,698 instances of dangerous chemical use by Russians have been documented from February 15, 2023, to May 24, 2024.

A notable briefing by the head of the Russian Armed Forces' Radiation, Chemical, and Biological Defense Troops, Lieutenant General Igor Kirillov, addressed the so-called U.S. and Ukrainian military-biological activities. The briefing reiterated claims about "U.S. military-biological activities in Africa" and Ukraine's development of chemical weapons.

Allegations of Ukraine producing chemical weapons have become a relatively new element in Russian rhetoric, as until June 2024, Russia primarily mentioned the use of chemical weapons rather than their production in Ukraine. Now, besides "biolabs", Russians are talking about "chemical labs".

Regarding the narrative that Ukraine creates nuclear risks, Russia repeatedly claims that Ukraine will become a dumping ground for nuclear fuel waste from European countries. This process is allegedly led by the head of the Presidential Office, Andrii Yermak, and funded by the Soros Foundation. They also claim that Ukraine will use this waste to create a "dirty bomb".

In recent months, Russian Federation narratives about chemical, radiological, nuclear, and biological threats have not undergone significant changes. Russian propaganda continues to spread false information about the creation of biological threats with U.S. support, nuclear and radiological dangers from Ukraine, and the use of chemical weapons. However, the specific falsehoods adapt to current events or statements that Russia can use to disseminate disinformation.

# STRUCTURE:

NARRATIVES AND THE FAKES THEY CONSIST OF

By spreading fakes about chemical, biological, nuclear, or radiological risks in Ukraine, Russian propaganda unites them around several narratives.

**Narrative: "Dangerous U.S. Biolabs Operate in Ukraine"**. Ukraine hosts biological laboratories funded by the U.S. government, allegedly developing bioweapons to be used against the Russian army and civilians.

Examples of fakes:

- The U.S. built or funded 46 biological laboratories in Ukraine
- U.S. laboratories in Ukraine worked on the controlled spread of infectious diseases
- Atypical diseases among Ukrainians are caused by U.S. biolabs
- U.S. biolabs in Ukraine are NATO military facilities
- The U.S. is relocating biolabs from Ukraine to Poland and the Baltic states
- The U.S. is building new laboratories in Ukraine to develop bioweapons, including based on the human genome
- Illegal experiments are being conducted on civilians in Ukrainian biolabs
- Ukraine hastily destroyed dangerous pathogens after the start of the Russian invasion

**Narrative: "Ukraine Uses Chemical Weapons".** Ukraine is illegally developing and testing chemical weapons, which will be used against the Russian army and civilian population.

Examples of fakes:

- Ukraine uses chemical weapons against Russian military and civilians in occupied territories
- Ukraine equips its drones with dispensers for dangerous chemicals
- Ukrainian military is preparing chemical provocations to blame Russia for using chemical weapons
- Chemical weapons are being produced in Ukrainian laboratories.

**Narrative: "Ukraine Creates Nuclear and Radiological Threats".**

Ukraine violates safety rules at nuclear power plants and plans nuclear or radiological provocations. Ukraine is incapable of protecting its nuclear facilities, so Russia had to intervene to protect the Zaporizhzhia Nuclear Power Plant (ZNPP).

Examples of fakes:

- Ukraine stores heavy Western weapons at its controlled nuclear power plants
- Russia is protecting the ZNPP
- Ukraine is staging military provocations around the ZNPP
- Ukraine plans to create a dirty bomb
- Ukraine is preparing provocations using radioactive waste
- Ukraine is planning to restore its nuclear arsenal

**Narrative: "Western Policy Increases Chemical, Biological, Radiological, and Nuclear Threats in Ukraine".** According to this version, Ukraine's Western partners, primarily the U.S. and the UK, help in the development of weapons of mass destruction. Russian troops on occupied territories find evidence of biolabs sponsored by Western countries, where weapon development and testing were conducted. Furthermore, Western officials allegedly admit their involvement in dangerous activities in Ukraine.

Examples of fakes:

- Victoria Nuland admitted that the U.S. has biolabs in Ukraine
- The UK and the U.S. are trying to hide their military-biological activities in Ukraine
- The UK is pushing Ukraine towards nuclear terrorism
- American contractors help Ukraine prepare chemical provocations
- The Biden family was involved in military biological research in Ukraine
- The UK endangers Ukrainians by supplying depleted uranium shells

# COUNTERACTION

*WHO AND HOW SHOULD COUNTERACT THE SPREAD OF DISINFORMATION REGARDING CHEMICAL, BIOLOGICAL, RADIOLOGICAL, AND NUCLEAR THREATS (CBRN)*

## **Actors**

To counteract disinformation about chemical, biological, radiological, and nuclear threats, all major actors must unite their efforts: states, international organizations, media companies, and civil society.

International organizations that can participate in combating disinformation in the field of CBRN threats include:

- International Atomic Energy Agency (IAEA)
- UN Office for Disarmament Affairs
- Organisation for the Prohibition of Chemical Weapons (OPCW)
- United Nations Interregional Crime and Justice Research Institute (UNICRI)
- World Nuclear Association, and others.

Overall, each country combats the negativity and biases regarding nuclear energy. However, in NATO and European Union countries, such disinformation has become the basis for Russia's information attacks. Fakes about "American biolabs" have been spread in all countries involved in the Biological Threat Reduction Program, including Georgia, Kazakhstan, Moldova, etc.

Direct “fight against disinformation” is carried out by fact-checkers, as they debunk fakes, monitor their emergence, and track spreading trends. Since 2015, the IFCN network, founded by the Poynter Institute, has united over 100 fact-checking organizations. In 2022, the European Fact-Checking Standards Network (EFCSN) was also created. The association includes nearly 40 organizations involved in fact-checking. Membership in the IFCN and EFCSN signifies a strict commitment to principles of transparency, objectivity, and impartiality.

Media are not so much a separate actor but one of the main tools of interaction between actors and society. The media connects governments, fact-checking, and international organizations, as it is the platform that broadcasts the results of their work. The media becomes a separate actor when they independently form a fact-checking team that regularly works on debunking fakes, such as Accociated Press, Deutsche Welle, etc.

Technology companies that own social networks are gradually increasing their influence in countering disinformation. For example, the content labeling system in Meta’s Third-Party Fact-Checking Program. Meta involves IFCN-certified fact-checkers to detect, verify, and evaluate disinformation on Facebook, Instagram, Threads, and WhatsApp. Labeling does not mean removing posts or accounts but attaching links to fact-checker explanations on why the information is false or manipulative. Labeled posts are less frequently suggested to users, which affects the spread of false information.

In early 2021, Google launched the Content Safety Engineering Center in Dublin, a regional hub for Google experts working on combating the spread of illegal and harmful content. Additionally, under YouTube’s policy on medical disinformation about COVID-19, the platform bans the publication of materials contradicting medical information from local health authorities (LHA) or the World Health Organization (WHO) regarding COVID-19. In cooperation with other international organizations, similar

tracking of potentially harmful content in the context of biological, chemical, nuclear, and radiological safety can be proposed.

### **Methods of Combating Fakes**

The two main methods of combating disinformation, regardless of its origin and content, are debunking and prebunking. Debunking involves exposing fakes after they spread, while prebunking is a preventive method aimed at preparing the audience for future information attacks.

All actors use both methods to some extent. Fact-checkers are more focused on direct debunking of fakes, while international organizations and governments are more oriented towards preventive measures, mostly through educational initiatives. Technology companies create tools to optimize both methods. To enhance the effect, actors collaborate with each other: governments provide comments to fact-checkers, international organizations send requests to governments for official confirmation or refutation, fact-checkers label content on social networks, etc.

### **Main Directions for Counteracting CBRN Disinformation**

#### **Information campaigns, courses, lectures, manuals, etc.**

Increasing media literacy and public awareness is one of the key tasks of prebunking. Fact-checkers have begun actively engaging in educational activities: conducting fact-checking courses, publishing tutorials on using information search tools, etc.

VoxCheck, for example, regularly conducts internships and training for journalists and releases explainers on various topics, including CBRN threats. International organizations conduct lectures, seminars, and educational courses at their levels.

In 2021, the United Nations Interregional Crime and Justice Research Institute, in alliance with WHO and in cooperation with the FBI, began developing strategies to raise awareness about CBRN disinformation and conducting training for member states. In 2023, the institute released a guide designed for fact-checkers and NGOs.

There is potential for creating a manual jointly developed by international and fact-checking organizations to incorporate the unique practical experience of the latter.

***Interactive approach.*** Using games to present information is becoming increasingly popular. For example, the game Cranky Uncle by Skeptical Science. In the game, a cartoon character embodies climate science denial and explains 14 methods of denying science, from fake experts to cherry-picking data and various logical fallacies. Many fact-checkers worldwide develop online and board games that allow players to learn the main fact-checking tools in a playful way. Technology companies also use gamification for educational purposes – Google’s Be Internet Awesome program (developed in cooperation with the Ukrainian government and NGOs) helps elementary school students learn digital safety and media literacy, such as how to verify news sources and avoid online scams.

A similar approach is appropriate for presenting more specific information, such as CBRN disinformation.

***Investment support for scientists and developers.*** In 2021, Google allocated 25 million euros to launch the European Media and Information Fund to support scientists, publishers, and NGOs in launching and expanding their media literacy programs. In the context of CBRN, such direct cooperation with scientists is desirable to increase the audience’s trust in debunkings, providing accurate and detailed explanations of phenomena subject to disinformation.

***Database of fakes on CBRN threats.*** Collecting and systematizing CBRN-related fakes in one resource is an excellent tool for everyone working on debunking these fakes and in areas subject to disinformation. An example of such a database is the EUvsDisinfo project by the EU East StratCom Task Force. They investigate topics like Russian disinformation in Ukraine, Georgia, Moldova, and other countries, disinformation about elections, COVID-19, etc.

***Establishing specialized state centers.*** In Ukraine, given the constant threat of Russian disinformation, the Center for Countering Disinformation was established in 2021 by the National Security and Defense Council. The main tasks of the Center are debunking specific fakes and preparing analytical materials. Since Russia systematically discredits Ukraine and engages in nuclear blackmail, the Center’s work focuses on combating disinformation about nuclear energy, biological laboratories, and other issues. The Center for Strategic Communications and Information Security under the Ministry of Culture, also established in 2021, engages in similar activities.

***Strengthening sanctions against Russian and pro-Russian media in the West.*** With the start of the full-scale invasion, governments in European countries temporarily blocked several Russian and pro-Russian media. However, some continue to operate, and some have escaped sanctions. While new resources are added to the sanctions list, Sputnik and other Russian propaganda sites are still active in the EU despite being banned two years ago. Moreover, Russia regularly creates new propaganda sites targeting an international audience.

