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Health and CBRN related misinformation and disinformation in Russia's war against Ukraine.

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Abstract

Health related misinformation and disinformation has plummeted in recent years. In 2019, the outcome of a measles epidemic in Samoa got significantly worse due to misinformation. Furthermore, anti-vaccine debate and mis/disinformation on alternative ways to prevent and treat Covid 19 followed the Covid-19 pandemic. Not only does this cause distrust in authorities and institutions, but it also threatens public health. The war in Ukraine, following Russia large scale invasion in 2022, has in addition to tremendous human suffering and environmental harm, also been plagued by misinformation and disinformation. Examples include allegations of secret biological warfare laboratories conducted by the U.S. on Ukraine soil, the use of chemical weapons by Ukraine, and preparation of so called "dirty bombs", psychologically exploiting fears of radiation.

Framing mis- and disinformation

With Mis- and/or disinformation we usually mean misinformation as unintentional mistakes, such as inaccurate photo captions, dates, statistics, translations, or when satire is taken seriously. This type of "wrong" information is accidental and is not intended to harm. Disinformation on the other hand, is fabricated or deliberately manipulated audio/visual content. Intentionally created conspiracy theories or rumours. This type of "wrong" information is deliberately shared to harm or deceive a person (CSI Library 2026).

Harm of mis- and disinformation

The harm that mis- and disinformation may cause is multifaceted. It may cause erosion of trust in institutions and multilateral systems. It can also be exploited for strategic gain and as a tool for hybrid warfare (EU Hybrid CoE 2026).

Fearmongering regarding e.g. conflicting health advice can result in psychosocial impacts, stigmatization and ultimately adverse impacts. It also creates polarization between those who believe in e.g. vaccines and those who do not (WHO 2024, WHO et al 2021).

Edelman Trust Barometer studies influence of trust across society. They have noticed a gradual development of the health disinformation ecosystem, to a point, where there's not only local or regional issues with mistrust against the health system, but also at a global level (Edelman Trust Barometer, 2026).

Health related mis- and disinformation- not a novel thing

In the mid-1980s there was a campaign called *Operation Denver*, where the US was accused of creating the HIV virus through biological weapons experiments, and spread by the CIA. The theory, was in fact a product by Soviet intelligence and spread globally by the KGB (Selvage & Nehring 2019)

In the late 1990s, the physician Andrew Wakefield, published a paper in the medical peer-reviewed paper Lancet, about how measles vaccine cause autism. The paper was later redacted, although it took almost 10 years (BMJ 2011;342:c7452, BMJ 2010;340:c696).

The effects of such mis/disinformation still linger. Several countries have recently lost their measles-elimination ("measles-free") status, including Canada, Armenia, Austria, Spain and the United Kingdom. US is at the brink of also losing its measles-free status (Iraola Iribarren 2026, Branswell 2025, Thompson 2026)

Currently (mid-2026), several outbreaks of the highly contagious measles virus is going. Since there is a widespread fear that the vaccine is worse than the virus itself, severe health outcomes, even deaths among children, has occurred (Van Beusekom 2026, Euronews with AP 2025). An example worth noting is the 2019 measles outbreak in Samoa. Vaccination coverage was low to begin with, and the outbreak was further worsened by mis- and disinformation. Social media, including the government's Facebook page, was flooded with anti-vaccination propaganda from accounts that appeared to be registered in the USA (Zadrozny 2025, Waleij 2022).

In the wake of the coronavirus pandemic, both misinformation and disinformation flourished. The WHO early on classified the coronavirus pandemic as an *infodemic*, that is, a pandemic with internet as the playing field. A generally accepted theory is that the coronavirus originated in a fish market in Wuhan, China, where wild animals also were sold. However, there are also more conspiratorial narratives, ranging from those saying that the virus was spread by an American participant in the military World Games in Wuhan, in the fall of 2019, to theories that the virus escaped from a high-security laboratory or that it was produced as a biological weapon (Wikström 2020, Waleij 2020).

One conspiracy theory during the 2026 Ebola outbreak in Democratic Republic of Congo (DRC) is that Ebola does not exist at all, but rather is fiction, to steal aid money. Hence, nonprofit humanitarian organisations brought the disease, some believe. Violence with deadly outcomes for humanitarian and health care workers has occurred. Another theory is that the outbreak was fabricated to gain access to minerals, including gold. There are also people who refuse to accept that preventing the spread of Ebola, which is transmitted through contact with bodily fluids of an infected person, requires forgoing some traditional funeral rites (Ombuor et al 2026) (Mukhwana & Rukanga 2026, Gale 2026).

Russian disinformation- a hybrid warfare tactic

Russia uses disinformation as a core pillar of its hybrid warfare doctrine to shape perceptions, fracture societies, and constrain adversaries' decision-space without necessarily crossing the threshold of open armed conflict (Bachmann et al 2023). Disinformation is created to undermine institutions and alliances and their credibility. False "evidence" is created, that appear authoritative, but lack relevance, by showing graphic or upsetting images. The Russian modus operandi can be divided into efforts to distort, deceive, deflect, deny, divide, and; repeat. The tactic is further accelerated by the use of Artificial Intelligence (AI) (INSS 2026, Boichak 2023).

Environmental disinformation- the Kakhovka dam breach

In June 2023, the Kakhovka dam in Ukraine was destroyed, draining much of the reservoir and triggering catastrophic flooding of a large area. Investigative reporting has repeatedly treated the destruction as sabotage rather than an accident, while Ukraine has blamed Russian forces. The loss of the reservoir also changed the battlefield, because the drained basin created new terrain that both sides had tried to exploit.

Russia immediately focused on blaming to Ukraine. The Kremlin and state-linked accounts said Ukraine bombed the dam, that the West helped. A Russian UN envoy framed the response as a "disinformation campaign" against Russia and repeated the claim that Ukraine shelled the facility (EUvsDisinfo 2024, Debunk.org, 2024).

An analysis performed by the German Marshall Fund of the United States (GMF) concluded that Kremlin-linked accounts tweeted about the dam more than 1,300 times in the week after the breach, making it one of Russia's most aggressive wartime propaganda pushes GMF (2023).

Disinformation about Nuclear, Radiological, Biological and Chemical (CBRN) agents

With Nuclear, Radiological, Biological and Chemical (CBRN) threats, sometimes referred to as Weapons of Mass Destruction, we usually mean a threat that involves an actor (antagonist), with intention and capability to do harm, using CBRN substances as a vector. Disinformation regarding potential use, even if those threats does not materialize, usually creates media attention, concerns and worry among people, and takes resources to debunk and/or investigate.

The traditional CBRN threats of a state attack in the medical field has evolved into a CBRN all-hazard spectrum. This concept reflects the additional hazards presented by radiological material, explosives, environmental (including industrial) hazards, and endemic disease. In addition, the impact of climate change is addressed. All of these hazards could generate CBRN casualties, or mimic CBRN, that may require a CBRN medical response (NATO 2018).

Disinformation about Nuclear and Radiological Weapons

Russia has accused e.g. Great Britain and France of giving Ukraine nuclear weapons and there have been accusations of Ukraine using so called "dirty bombs", that is an explosive device designed to scatter radioactive material. The above seems to aim to justify any future Russian use of nuclear weapons to retaliate.

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Other examples include discrediting alliances and their credibility, such as the Comprehensive Nuclear-Test-Ban Treaty (CTBT) and the Treaty on the Non-Proliferation of Nuclear Weapons (NPT).

Disinformation about Biological Weapons

There have been repeated rumours about the US running secret biological warfare laboratories on Ukraine soil. Since 2005, US has supported peaceful public health and veterinary laboratories not only in Ukraine, but also in other former Soviet republics, as well as in African countries. The Biological Threat Reduction Program (BTRP) has been part of the American Cooperative Threat Reduction Program (CTR) since the 1990s (Wikström 2022). Among the falsehoods launched regarding the BTRP program is that there have been projects to study the possibility of the spread of particularly dangerous infections through migrating bird, or, bats as potential carriers of biological weapons agents.

Desinformation on Chemical Weapons

Russian disinformation about chemical weapons include that Ukraine is using chemical weapons against Russian forces in Ukraine, and also in Russia (Kursk). Furthermore, Russia has accused Ukraine of preparing chemical provocations with the help of the United States and other partner nations.

Other examples include disinformation about the West controlling and manipulating the OPCW (Organisation for the Prohibition of Chemical Weapons). There have also been unsubstantiated accusations at UN Security Council meetings.

Two other notable examples are (1) the Russian claim that the poisoning of about the Russian double agent Sergei Skipal, with the Russian nerve agent Novichok in Salisbury 2018, was carried out by the UK. (2) That the Russian opposition leader Aleksei Navalny, poisoned with firstly Novichok in 2020, and secondly, with the South American frog poison Epibatidine in 2024, while incarcerated in an Arctic penal corrective facility was not caused by Russia (EUvsDisinfo 2026, 2024 & 2018, BBC 2024, NYT 2026).

Countering disinformation initiatives

In recent years, several initiatives to counter, debunk and pre-bunk disinformation has been launched. (1) WHO has created useful material and launched an Infodemic management course series (WHO 2024, WHO et al 2021).

(2) EUvsDisinfo, is a project of the European External Action Service's East StratCom Task Force performs data analysis and media monitoring services on disinformation cases originating in pro-Kremlin media. Material is produced in 15 languages. Furthermore, a searchable database of disinformation, including CBRN issues is available (EUvsDisinfo <https://euvsdisinfo.eu/>),

(3) A CBRN specific initiative is the G7 Global Partnership Against the Spread of Weapons and Materials of Mass Destruction, established in 2024. The initiative produce primers and debunking reports, arranges workshops and other aware-raising initiatives. Recently, a "CBRN Desinformation Tracker" has also been launched Countering WMD Disinformation Initiative, <https://gpwmdcounterdisinfo.com/library/>

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(4) UNICRI (United Nations Interregional Crime and Justice Research Institute), has proposed a “truth sandwich”, that is a structured way of responding to disinformation that deliberately leads and closes with verified facts, while containing and contextualising the falsehood in the middle (UNIDIR 2026, UNICRI 2022). The idea is to;

- Start with the truth. The first frame gets the advantage.
- Indicate the lie. Avoid amplifying the specific language, if possible.
- Return to the truth. Always repeat truths more than lies (Communicate Health 2020).

An example of how it could play out in health materials:

“Never drink bleach. You may have heard that bleach can kill the coronavirus, but this only works on surfaces — not inside your body. Drinking bleach can cause serious illness and death, and it doesn’t cure COVID-19” (Ibid).

Summary

Health and environmental related misinformation and disinformation, as well as CBRN related disinformation, has plummeted in recent years. The harm that mis- and disinformation may cause is multifaceted.

Russia is an active actor using disinformation as a core pillar of its hybrid warfare doctrine to e.g. constrain adversaries’ decision-space without necessarily crossing the threshold of open armed conflict.

Several initiatives to counter, debunk and pre-bunk disinformation has been launched in recent years. One example is a “truth sandwich”, which is a structured way of responding to disinformation that deliberately leads and closes with verified facts, while containing and contextualising the falsehood in the middle.

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