

Comprehensive training

28 June – 21 July 2022

HOSTED BY GAVI, WHO, UNICEF & US CDC



Addressing health misinformation

Tina Purnat

Team Lead for Infodemic Management
Department of Pandemic and Epidemic
Preparedness and Prevention
WHO Health Emergencies Programme

Elisabeth Wilhelm

Health Communications Specialist
Demand for Immunization Team
Global Immunization Division
US CDC



Learning Objectives

Participants will...

- Define basic terms associated with infodemics
- Describe common approaches used to manipulate people with misinformation and how to address them
- Learn about strategies and tools to rebut, prebunk and debunk health misinformation



Definitions

Information Ecosystem

The exchange of information and communication in a digitized society

Unsettled Science

An absence of definitive answers or scientific updates to questions that people are seeking answers to

Message Penetration

Ability of a person to receive and understand information as intended

Information Overload

A person being overwhelmed with information which can cause confusion or difficulty to act on guidance

Rumor

Information, inaccurate or accurate, circulated within a network

Misinformation

Information that is inaccurate

Disinformation

Misinformation specifically designed to achieve an agenda

Information Voids

People seeking information but find a lack of credible sources

Infodemic

An overabundance of information—including mis/disinformation—accompanying an acute health event such as an outbreak

Types of harm the infodemic can contribute to

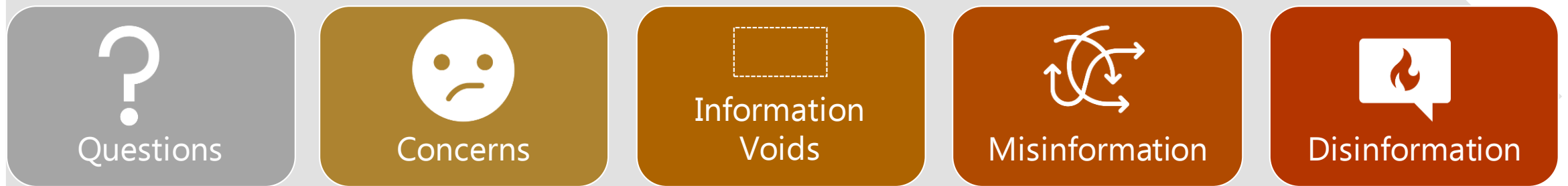
Domain of impact - harms	Consequence
Physical	<ul style="list-style-type: none">• Limited accurate knowledge about available treatments• Misplaced actions
Social	<ul style="list-style-type: none">• Victimization and stigma
Economic	<ul style="list-style-type: none">• Falling for scams• Panic buying
Political	<ul style="list-style-type: none">• Limited trust in officials• Rejection of official guidelines• Disregard of government-led responses
Psychological	<ul style="list-style-type: none">• Mental health epidemic• Extreme anxiety• Long-term depression

Table 3. Our risk framework of health misinformation based on the evidence.

Stewart, R., Madonsela, A., Tshabalala, N., Etale, L., & Theunissen, N. (2022). The importance of social media users' responses in tackling digital COVID-19 misinformation in Africa. *Digital Health, 8*, 20552076221085070.



The infodemic is made up of more than misinformation



Growth of narratives and if sustained, increasing potential for harm

The infodemic is made up of more than misinformation

Health systems have more influence here



Questions



Concerns



Information
Voids



Misinformation



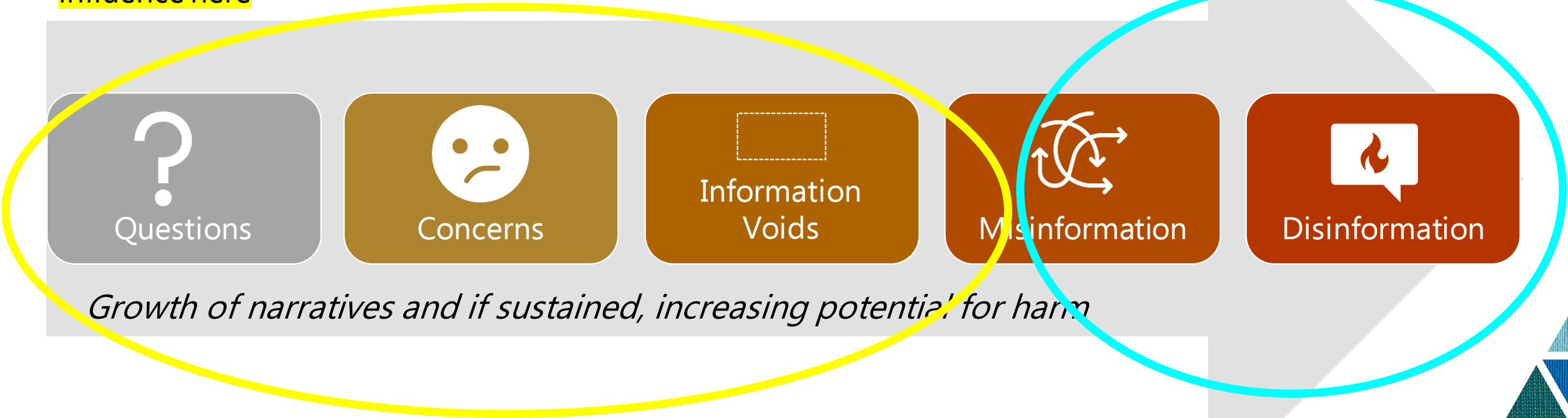
Disinformation

Growth of narratives and if sustained, increasing potential for harm

The infodemic is made up of more than misinformation

Health systems have more influence here

Less influence here



Growth of narratives and if sustained, increasing potential for harm

Strategies for addressing questions, concerns, information voids about vaccines in your community



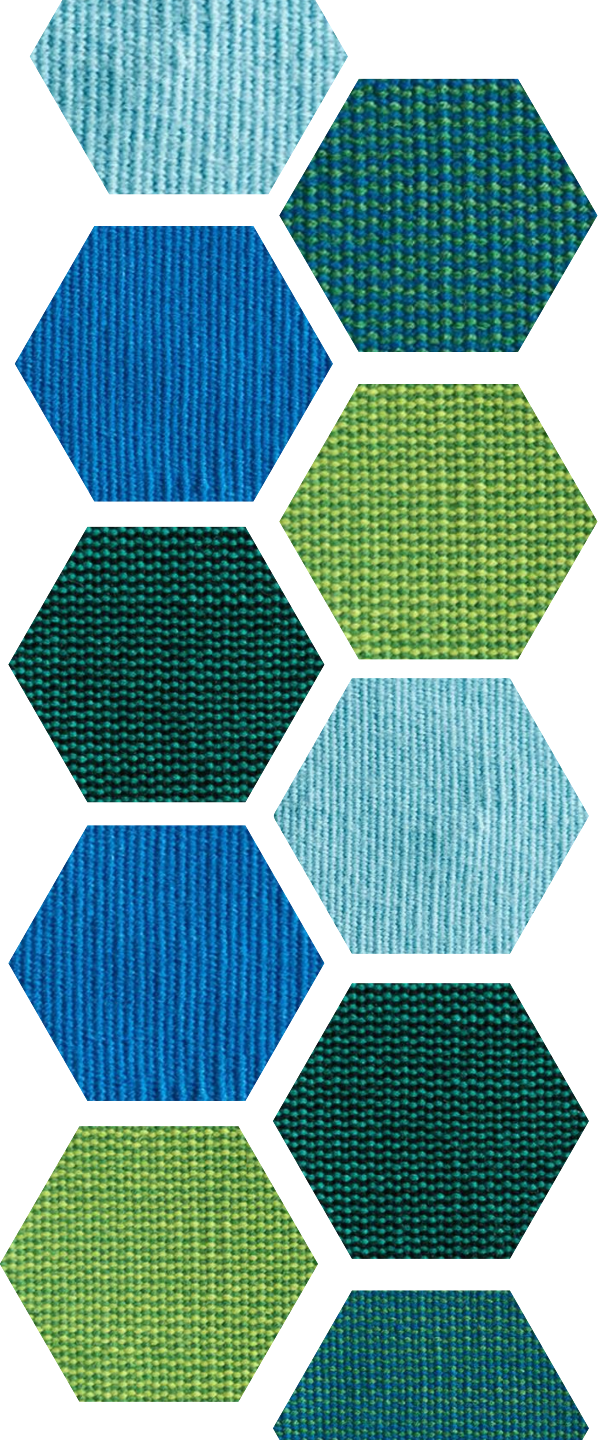
- **Listen to and analyze conversations and narratives** circulating in your community through social and traditional media monitoring and integrated analysis.



- **Share accurate, clear, and easy-to-find information** that addresses common questions. This can be done through your website, social media, and other places your audience looks for health information. Also use methods to reach those with limited or no internet access, such as radio or community events.



- **Use trusted messengers** to boost credibility and the likelihood of being seen and believed over misinformation. Reach them through the channels and sources they look to and trust for health information, such as religious leaders or community organizations.



Common types of mis- and disinformation

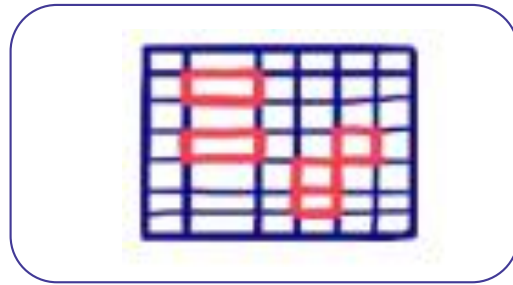
And

Reasons why people share misinformation

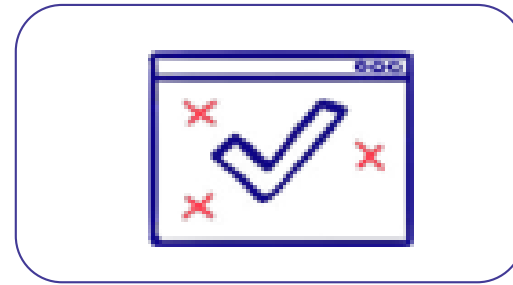
Common Types of Health Misinformation



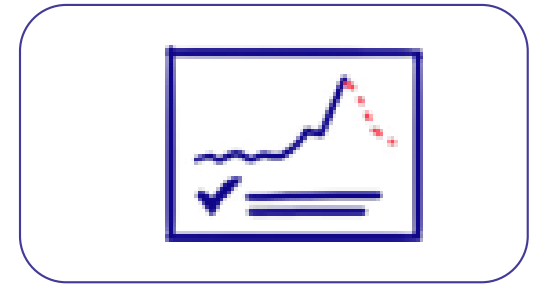
Memes (fun, colorful images or graphics) that were created as a joke, but people started resharing thinking it was true.



Cherry-picked statistics. Too often we see people choosing the number that supports what they want to argue, but without all the data, they haven't provided all the context.

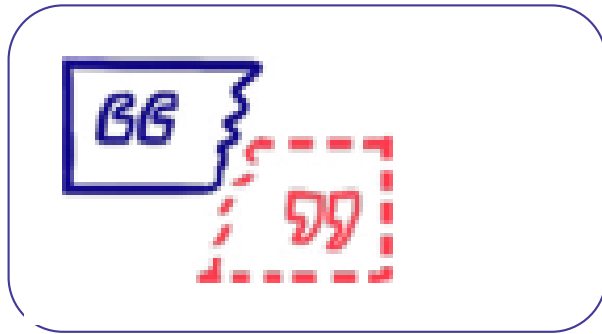


Websites that look professional (often designed to look like news sites) but the stories are all false or misleading. They have sensational headlines designed to make us click on them.



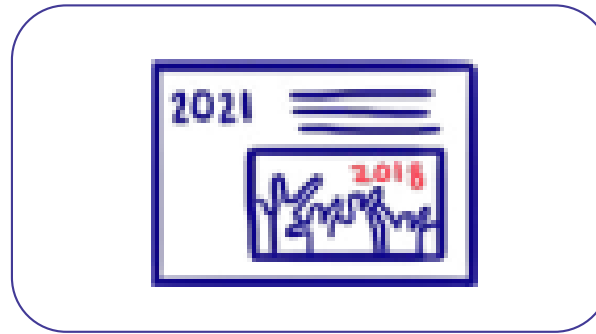
Misleading graphs or diagrams that look official but don't tell the whole story

Common Types of Health Misinformation

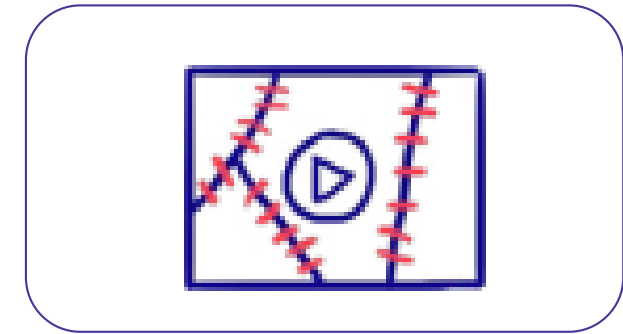


Quotations where the beginning or end have been deleted to change the meaning.

The person did say that, but without the full context it's not a fair representation of what they said.



Old images that recirculate as if they are actually very recent.



Videos that have been edited to change the meaning.

Misinformation
manipulates not
just facts but
emotions too



based on cartoon by Alfredo Garzon

© WHO/Sam Bradd

There are different motivations for people sharing health misinformation



“Disinformant”

I deliberately create harmful misinformation.



“Hoaxster”

I create hoaxes to fool people, sometimes to make money.



“Enthusiast”

I post misinformation frequently in support of a person or cause.



“Casual sharer”

I tend to spend a lot of time online, and can sometimes share carelessly while waiting in line, or scrolling late at night in bed.

Creators

Sharers



“Mischief-maker”

I create false or misleading information to see if I can fool people for the fun of it.



“Believer”

I am deeply connected to an online community that is pushing false, misleading claims. I believe the information being shared by the community is true and I want to share it with others.



“Oversharer”

When I see something online that seems helpful or worrying I like to share without checking because I'd rather people have as much information as possible.

Source: [US Surgeon General Health Misinformation Toolkit](#)

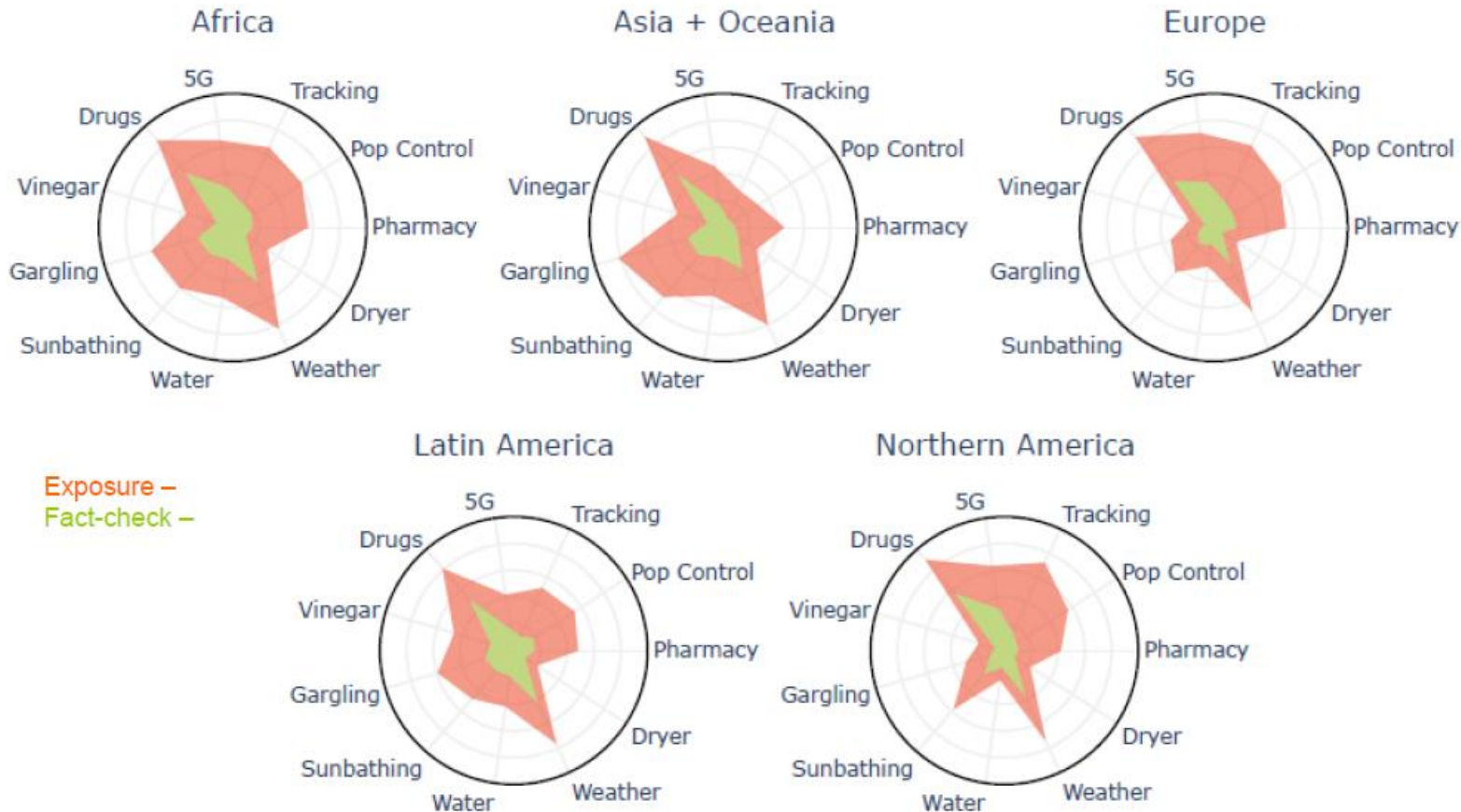


Have you addressed....

- ✓ **Questions?**
- ✓ **Concerns?**
- ✓ **Information voids?**
- ✓ **Misinformation?**
- ✓ **Disinformation?**

Here are some strategies to prevent and address mis- and disinformation:

Misinformation countering needs careful prioritization and debunking approaches



High exposure to misinformation does not mean people will believe in it

→ What claims to fact-check first should be carefully decided

Belief in false information seems correlated with vaccine hesitancy

→ Actions needed before beliefs set in

Detecting false information in news is not enough

→ Pre-emptive measures (e.g., sending facts before rumors) can help.

The message, messenger, timing, medium and format all matter

- Audiences will judge the credibility of a message by the message the messenger, the format, the frequency and the medium they receive it through
- “It’s not just about what you say but how you say it”
- Remember that audiences are receiving your message (or not) in a noisy information environment.
- What people remember from a message is usually the gist.

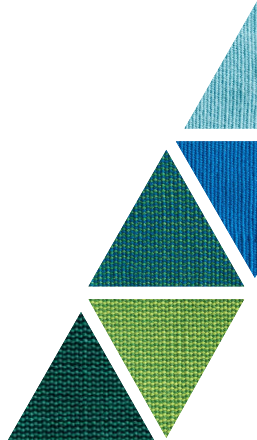


The gist in effective communication

“the gist of a message”

“the gist(s) in a message”

“**mental representations** capturing **the bottom-line meaning** of information” or experience



Deploying Corrective Public Health Gists in Factchecking Headlines

Offering corrective bottom-line:

VS

Reinforcing a problematic claim:



COVID-19 vaccines are safer than the risk of COVID-19 infection for people of all ages

CLAIM

COVID-19 vaccines caused as many deaths as the disease in young people

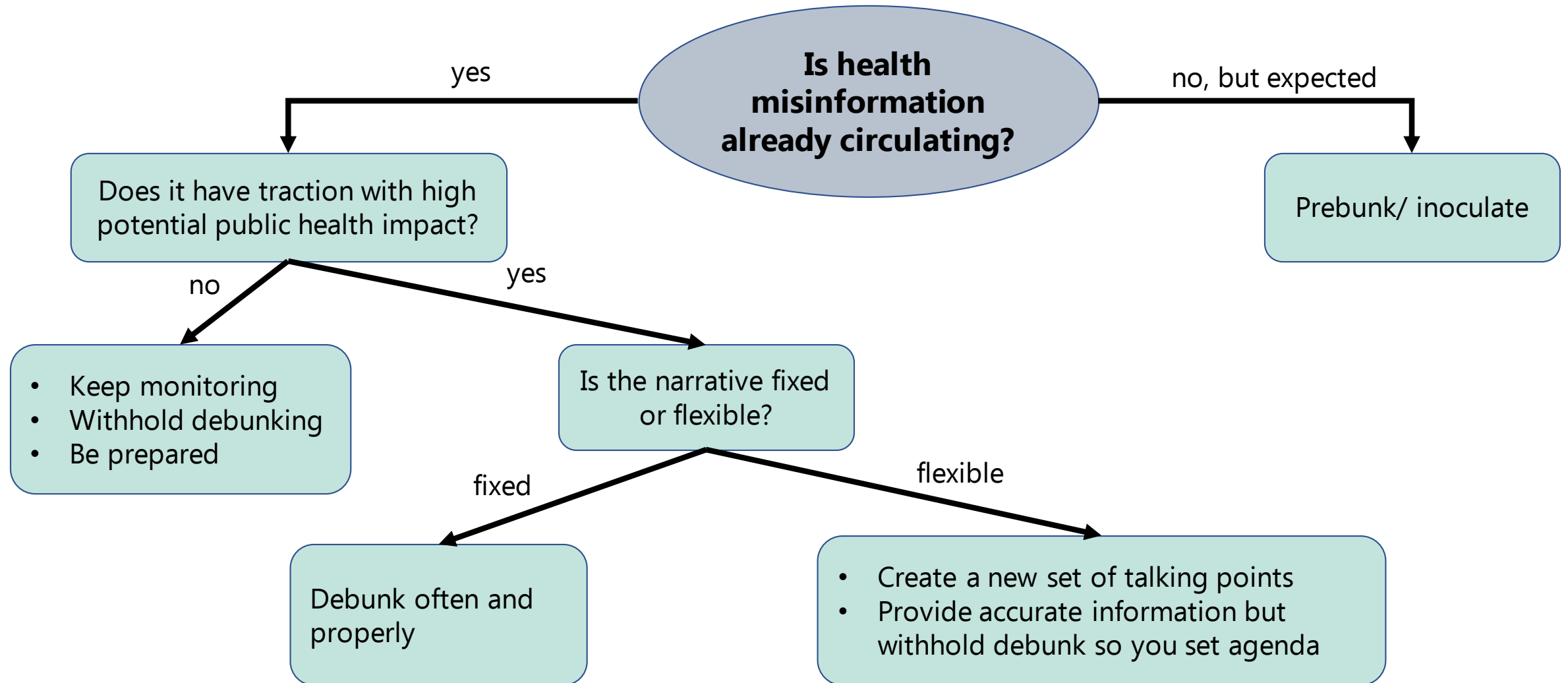
VERDICT

Unsupported



Partly false claim: Flu vaccine contains toxic levels of formaldehyde, mercury-derivative preservatives

Prebunking vs debunking



Source: [Debunking Handbook](#) (adapted); ECDC addressing online vaccination misinformation course, <https://eva.ecdc.europa.eu/>



Addressing Misinformation Effectively: The Truth Sandwich



Fact	Warning	Fallacy	Fact
<ul style="list-style-type: none"> Lead with the fact Make it clear, relevant and memorable 	<ul style="list-style-type: none"> Misinformation alert! Misleading tactics alert! 	<ul style="list-style-type: none"> Unintentional: Explain reasons why facts could have been misinterpreted Intentional: <ol style="list-style-type: none"> Flag tactics Undermine trust in authors Highlight misleading tactics Reveal hidden agenda 	<ul style="list-style-type: none"> Provide alternative correct information Must replace misinformation Make correct information more memorable than the misinformation



Effective rebuttal strategies for countering science denialism in the public

Technique rebuttal

- Selectivity
- Impossible expectation
- Conspiracy theories
- Misrepresentation/ false logic
- Fake experts

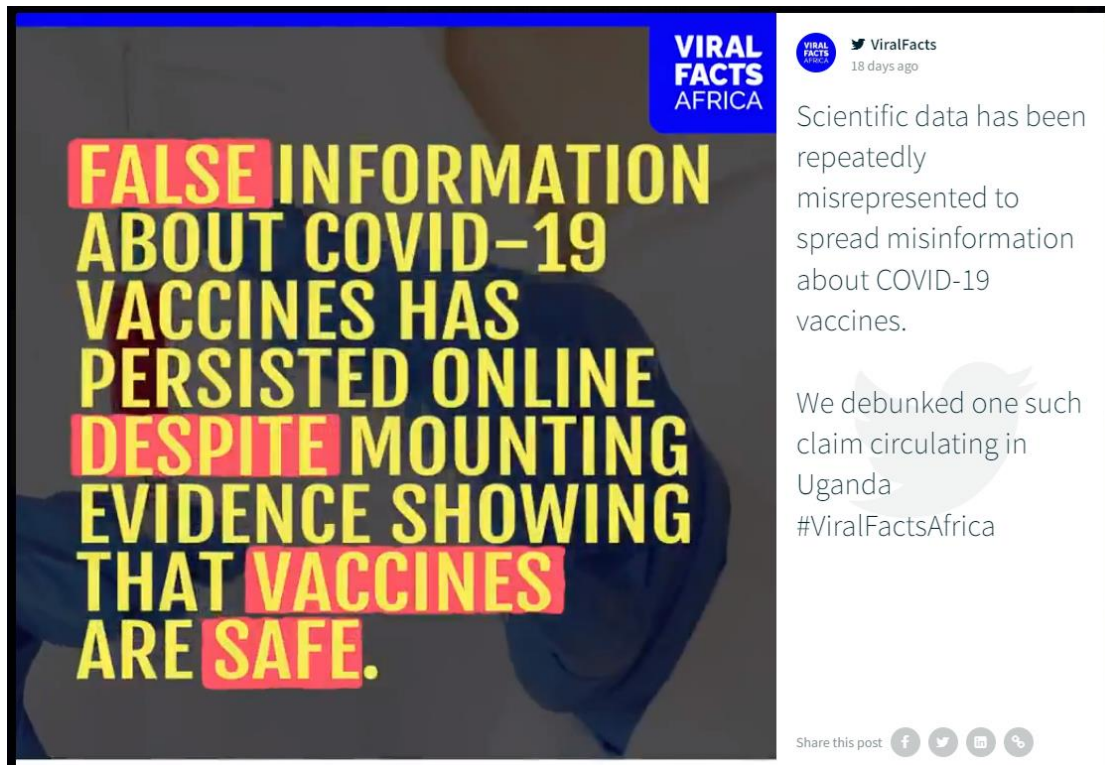
Topic rebuttal

- Threat of disease
- Safety
- Alternatives
- Trust
- Effectiveness

- Messages of science denialism cause damage.
- Rebuttal approaches mitigate the damage.
- Rebuttal is effective even in vulnerable groups.

Talk at the WHO consultation on managing the COVID-19 infodemic - https://www.youtube.com/watch?v=qVLurn34OIs&ab_channel=purnatt
Schmid P, Betsch C. Effective strategies for rebutting science denialism in public discussions. Nature Human Behaviour. 2019 Sep;3(9):931-9.

How to address concerns or misinformation without repeating the myth?



VIRAL FACTS AFRICA

FALSE INFORMATION ABOUT COVID-19 VACCINES HAS PERSISTED ONLINE DESPITE MOUNTING EVIDENCE SHOWING THAT VACCINES ARE SAFE.

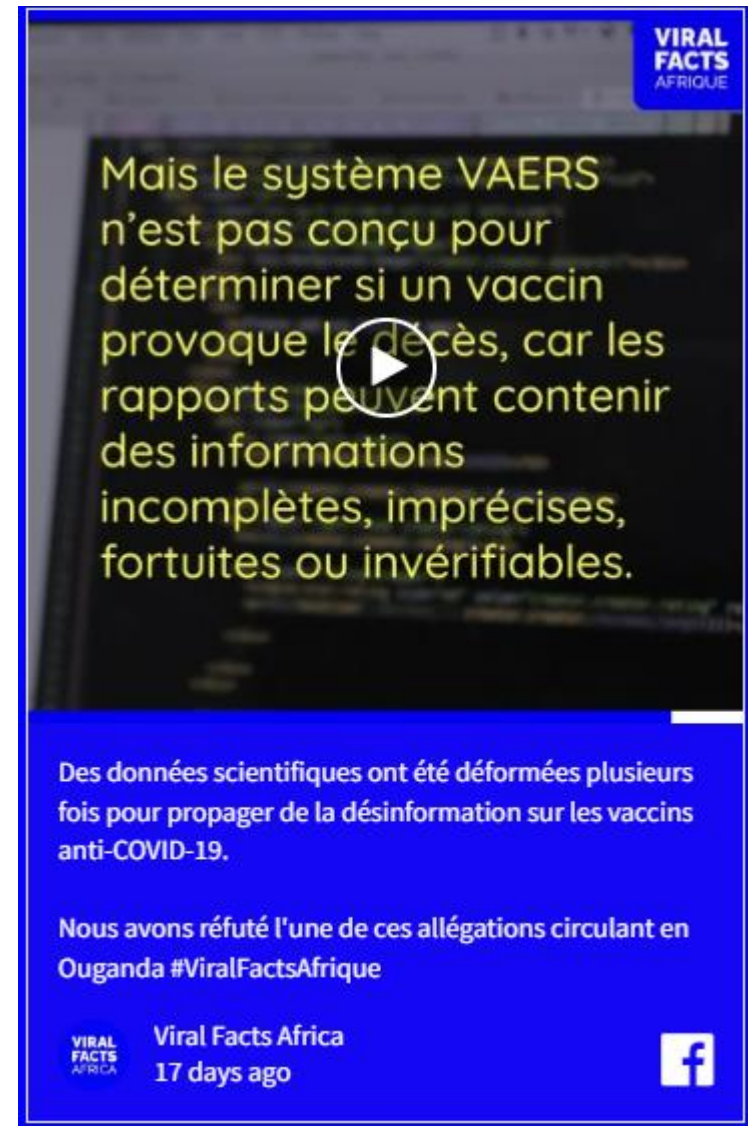
VIRAL FACTS AFRICA 18 days ago

Scientific data has been repeatedly misrepresented to spread misinformation about COVID-19 vaccines.

We debunked one such claim circulating in Uganda
#ViralFactsAfrica

Share this post

<https://viralfacts.org/africa/>



VIRAL FACTS AFRIQUE

Mais le système VAERS n'est pas conçu pour déterminer si un vaccin provoque le décès, car les rapports peuvent contenir des informations incomplètes, imprécises, fortuites ou invérifiables.

Des données scientifiques ont été déformées plusieurs fois pour propager de la désinformation sur les vaccins anti-COVID-19.

Nous avons réfuté l'une de ces allégations circulant en Ouganda #ViralFactsAfrique

VIRAL FACTS AFRICA Viral Facts Africa 17 days ago

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Vaccine Demand Observatory

A collaboration between UNICEF, PGP, and the Yale Institute for Global Health



Vaccination
Demand
Observatory

- Lead by UNICEF, the VDO is training infodemic managers to monitor misinformation and respond to it with evidence-based communication strategies.
- The VDO provides three key services that work together in concert:
 1. Identifying misinformation & information gaps;
 2. Responding to misinformation with the Vaccine Acceptance Interventions Lab (VAIL); and
 3. Training and technical assistance.



<https://dashboard.thevdo.org/>

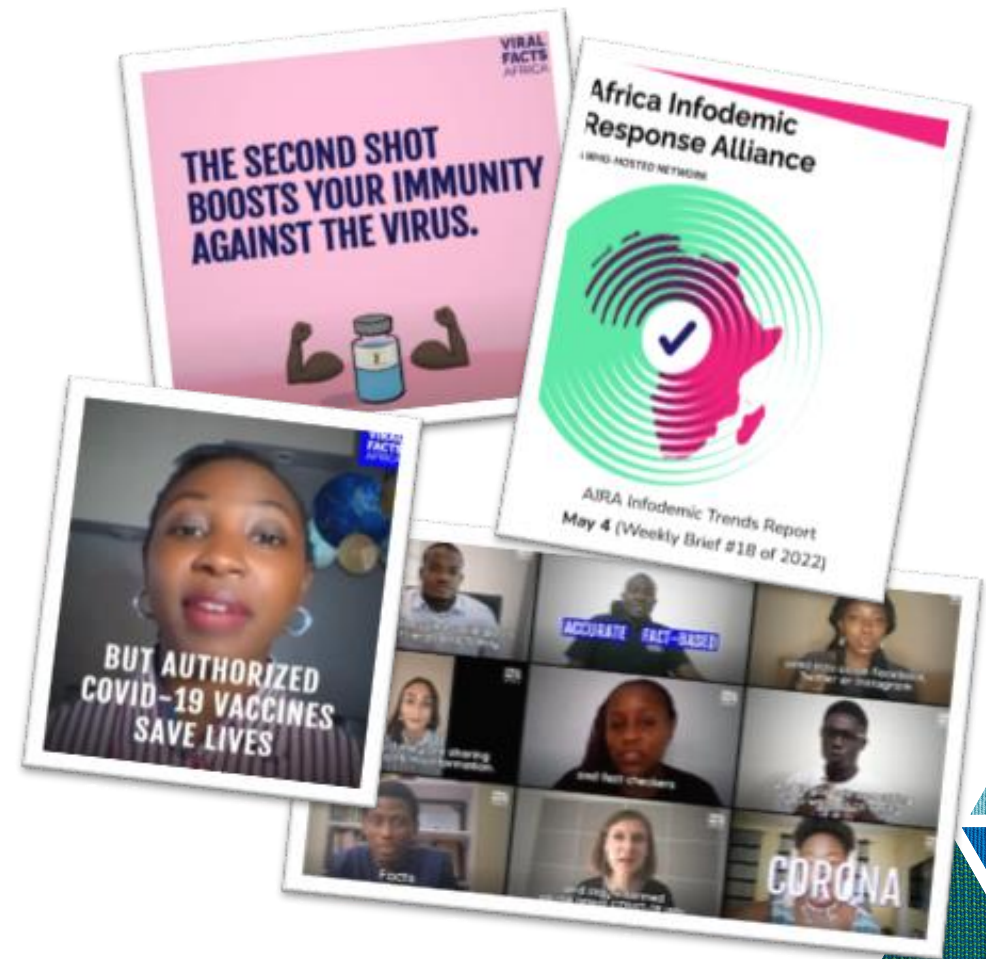
<https://dashboard.thevdo.org/>

Africa Infodemic Response Alliance Reports

WHO AFRO, UNICEF, Africa CDC, IFRC, UNESCO, Verified, UN Global Pulse and many country and regional fact-checking organizations

AIRA is Africa's network to share safe, proven facts on health and to counter dangerous health misinformation, focused on five areas:

1. **Coordination:** Harmonising the different efforts that are responding to the infodemic threat at regional and country levels.
2. **Infodemiology Research:** Producing research to better understand infodemics and how to respond to them.
3. **Advocacy:** Working with member states on adding infodemic response to their list of priorities.
4. **Country Support:** Supporting member states with a comprehensive infodemic management strategy and solutions.
5. **Viral Facts:** a public-facing brand representing the work of the alliance.



<https://www.afro.who.int/aira>

<https://www.afro.who.int/aira>

Considerations for different operating environments:



- Focus on social listening to understand questions, concerns and information voids circulating in different populations
- Ensure basic communications content and messages are available in multiple formats and languages and are easily shareable
- Introduce a basic editorial style for published health information products (for example, perma-links, dating each piece of content or health guidance, using terms that have been pretested and are well-understood by the target population)



- Equip health workers and health department staff with ability to address misinformation, like deploying the truth sandwich technique
- Address new questions and concerns with fresh content, amplified through different channels and partner networks on a regular basis
- Work with factchecking networks to have a visible online page where claims can be verified and referenced.



- Develop content moderation strategy for all official social media channels to determine when to rebut, prebunk or debunk misinformation
- Equip health experts with media and social media skills to address misinformation and vocal vaccine deniers (where appropriate)
- Support unstructured networks of digital native health workers online who are addressing health misinformation





Resources

Guidance

- WHO Infodemic health topic [page](#)
- First Draft [vaccines and misinformation resources](#)
- UNICEF [vaccine misinformation field guide](#)
- US CDC addressing vaccine misinformation [page](#)
- Community Toolkit for Addressing Health Misinformation - <https://oes.gsa.gov/collaborations/misinformation-toolkit/>
- Debunking handbook 2020 - <https://www.climatechangecommunication.org/debunking-handbook-2020/>

Readings/Videos

- Subscribe to [WHO Infodemic Management Newsflash](#)
- [Sergio Cecchini - Responding to the infodemic through Africa Infodemic Response Alliance - YouTube](#)

Tools

- [Vaccination Demand Observatory](#)
- [EARS](#)

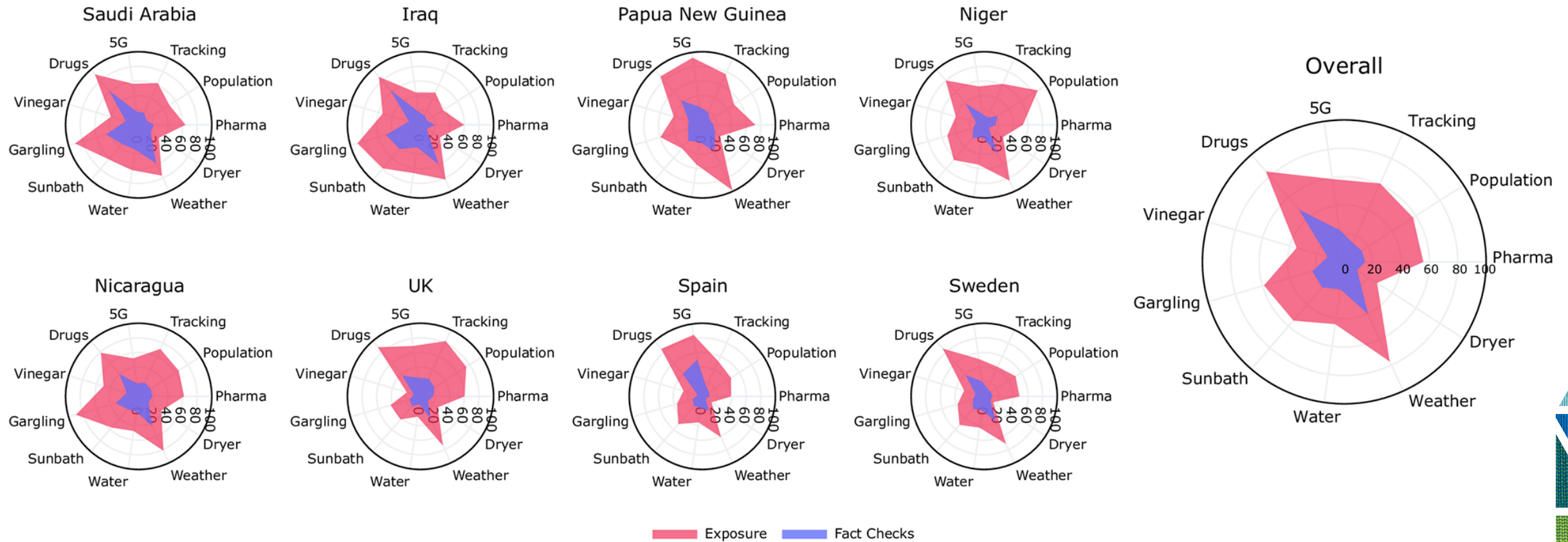


Extra slides

More tactics are needed to address misinformation beyond fact checks

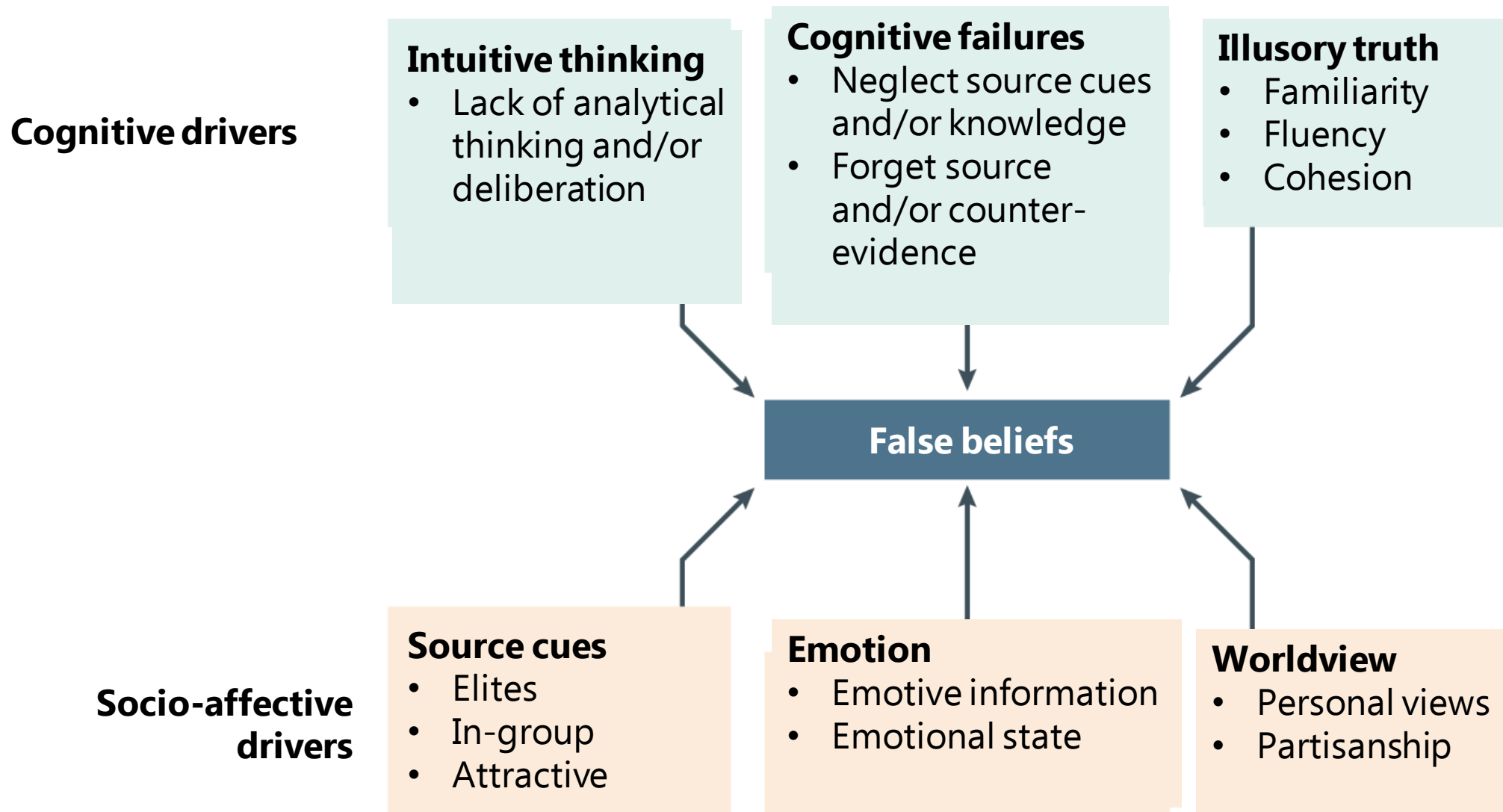
Fig 3. Country-level exposure to rumors and fact-checks.

The pink polygon presents the weighted percentage of people who have been exposed to rumors. The purple polygon shows exposure to fact-checks.



Exposure Fact Checks

Drivers of false beliefs



Ecker UK, Lewandowsky S, Cook J, Schmid P, Fazio LK, Brashier N, Kendeou P, Vraga EK, Amazeen MA. The psychological drivers of misinformation belief and its resistance to correction. *Nature Reviews Psychology*. 2022 Jan;1(1):13-29.



Social inoculation

Exposure to a weakened form of misinformation...

- Neutralized misinformation
- Immunity across topics
- Post-inoculation talk

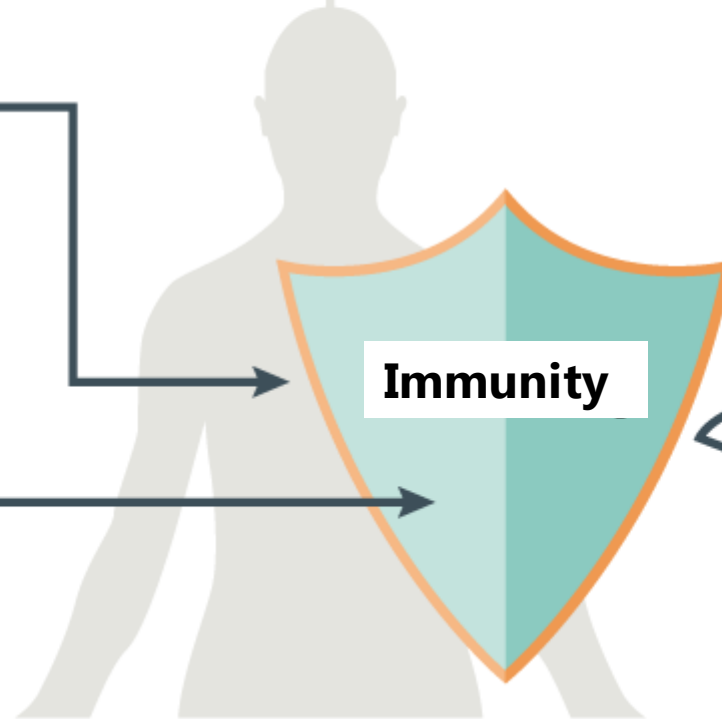
...builds immunity against later misinformation

Warning of risk of being misled



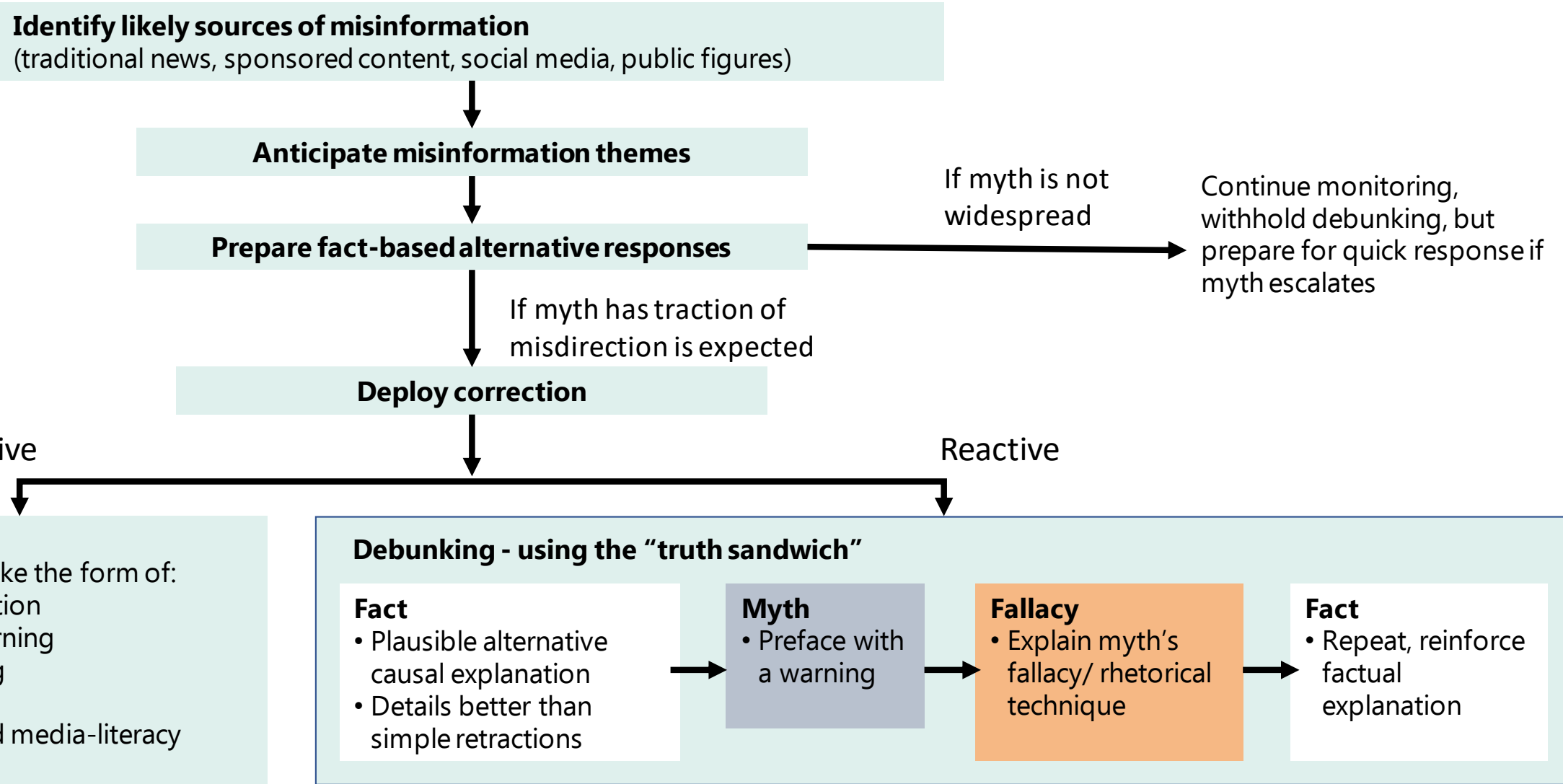
Pre-emptive refutations

- Fact-based
- Logic-based
- Source-based



Ecker UK, Lewandowsky S, Cook J, Schmid P, Fazio LK, Brashier N, Kendeou P, Vraga EK, Amazeen MA. The psychological drivers of misinformation belief and its resistance to correction. *Nature Reviews Psychology*. 2022 Jan;1(1):13-29.

Strategies to counter misinformation



Ecker UK, Lewandowsky S, Cook J, Schmid P, Fazio LK, Brashier N, Kendeou P, Vraga EK, Amazeen MA. The psychological drivers of misinformation belief and its resistance to correction. *Nature Reviews Psychology*. 2022 Jan;1(1):13-29.

Gist in effective communication

I want to say **XYZ**

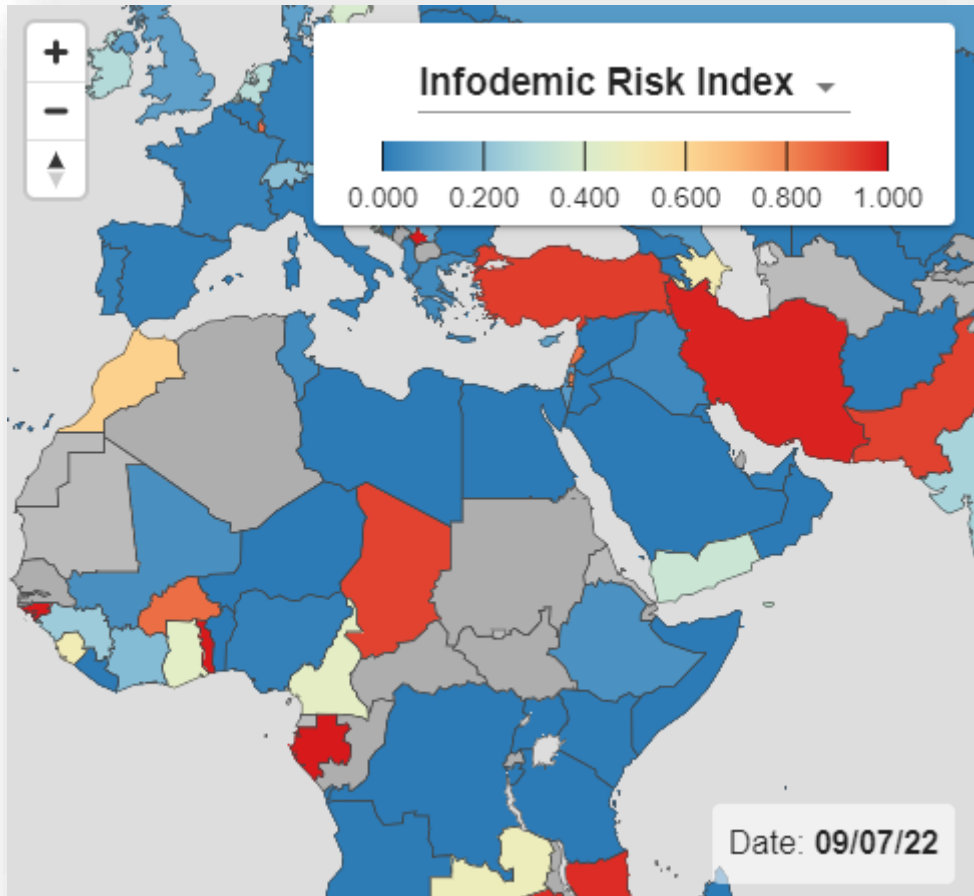
I want **YOU** to **hear** all of **XYZ**

I want **YOU** to really **understand/**
acknowledge most of **YZ**

I want **YOU** to **take-away** gist of **Z**
(driving some decisive action immediately or in the future)

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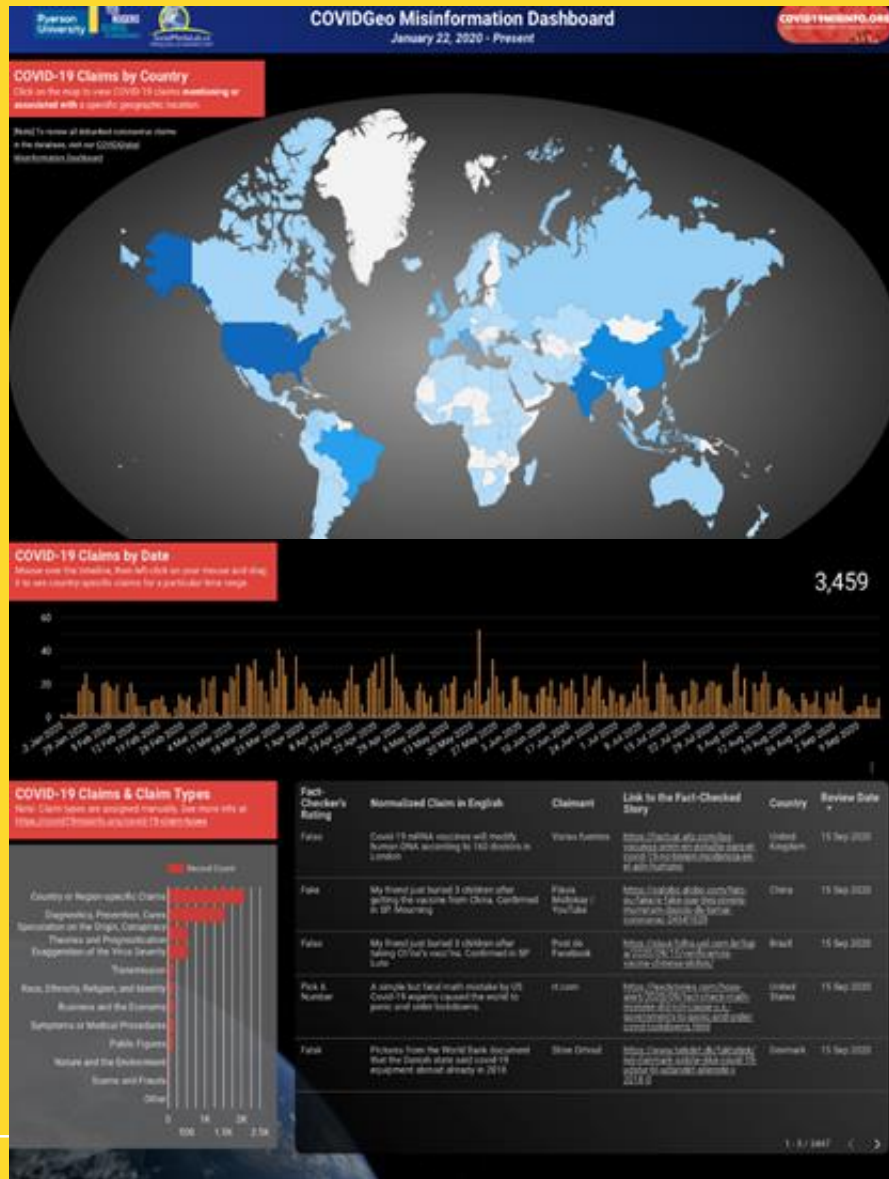
Covid-19 Infodemics Observatory – infodemic risk index



- An **interactive dashboard** with estimates of how much a country is potentially exposed to **misinformation** or **disinformation** about COVID-19
- Estimates the **infodemic risk** as the online exposure to potentially misinformative messages by **social media** users on a given day in a specific country, and many other indices.

<https://covid19obs.fbk.eu/#/>

COVIDGeo Misinformation Dashboard



Data from Google Fact Check API:

<https://toolbox.google.com/factcheck/>

Interactively, users can:

- Learn which countries are more frequently the subject/target of COVID claims.
- See what types of COVID claims are circulating online that specifically mention or reference a geographic location.
- Discover when are there spikes in the volume of debunked COVID claims.
- Track what fact-checkers around the world have chosen to fact-check

Link: <https://covid19misinfo.org/misinfowatch/misinformation-watch-covidgeo/>

For a more complete dataset of debunked COVID-19 claims, *regardless of whether a particular country is mentioned or not*: <https://covid19misinfo.org/misinfowatch/global/>

INFODEMIOLOGICAL MODEL

1 Agents

Epidemics are caused by disease strains. Infodemics are caused by humans, and /or technologies programmed by humans. These could be 'hostile' agents, but might just as easily be friends, teachers, public officials, etc.



2 Communication Environments



Humans have thoughts and feelings, which they keep to themselves, or else communicate to others face to face, via communication technologies, and/or over platforms. Just as the quality of a physical environments affect epidemic spread, the quality of a communication environment can impact infodemics. .

3 Information



Thoughts and feelings are experienced by humans as information. Information can be understood as data that is represented in a way that has value to someone.

We refer to potentially harmful representations of information as **disinformation or misinformation.**

4 Messages

Human beings share information through messages. Just as a pathogen seeks out a host to which it can deliver and receive biological messages, humans seek out audiences (sometimes actual, sometimes imagined) to whom they deliver and receive communicative messages.

5 Formats for transfer

Humans tend to embed messages in socially agreed upon formats and genres, and paces. Format is a critical part of messaging, often cueing audience response to a message before the content is even read or viewed.

medium



speech, text, images, live, edited, filtered, etc.

genre



news report, official announcement, parody, etc.

pace



pace often depends on social or technological reception (e.g. algorithmic amplification or dampening.) The perception that information moves at too fast a pace is referred to as **overload.**

6 Infodemic Spread

We become a host when we accept or spread a harmful message that might translate to negative behaviour choices (e.g. rejecting vaccines.) Contact with harmful messaging doesn't guarantee that someone becomes an infodemic host: uptake (through behaviour or propagation of the message) is what matters.



host

host?

AUDIENCES

The message, messenger and format all matter



Informed by social listening:

- Develop messages that address awareness and knowledge gaps
- Develop underlying gist that address root of reason why questions/concerns/narrative/misinformation are circulating

How to respond to vocal vaccine deniers in public



Best practice guidance //

How to respond to vocal vaccine deniers in public



<https://www.who.int/europe/publications/i/item/WHO-EURO-2017-2899-42657-59427>

Rule 1

The general public is your target audience, not the vocal vaccine denier.

Rule 2

Aim to unmask the techniques that the vocal vaccine denier is using and to correct the content of their messages.

Goal

Foster resilience among the audience against anti-vaccine statements and stories: strengthen those who are vaccine hesitant and support those who intend to vaccinate in their decision to accept vaccination.

Be cautious in choosing a time, a place and situation where you participate in a public debate.