

Infodemic management

FOR A STRONGER COVID-19 PANDEMIC RESPONSE
AND BETTER PREPAREDNESS FOR EMERGING HEALTH THREATS

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EPI • WiN

infodemic
MANAGEMENT

An infodemic makes it harder to manage the pandemic

- An infodemic is an overabundance of information – good and bad – that makes it difficult for people to make decisions for their health
- Misinformation¹ and disinformation² can cause real harm to health, public trust, and social cohesion – undermining the emergency response and extending the pandemic

¹ inaccurate information

² false or inaccurate information intended to mislead

”



We're not just fighting an epidemic; we're fighting an infodemic.

Tedros Adhanom Ghebreyesus
Director-General, World Health Organization

The COVID-19 infodemic can harm health

- Access to reliable health information is a human right and public good – the infodemic is making it harder for people to find and understand health expert advice
- The infodemic can lead to confusion, risk-taking and harmful behaviours
- In some countries, misinformation has generated mistrust in governments, public health authorities and science

In Iran, approximately:

- 700 people have died
- 5,011 have been hospitalized and
- 90 have developed blindness or eyesight damage

after drinking methanol as a “cure” for coronavirus



Photo credits:

<https://www.aljazeera.com/news/2020/04/iran-700-dead-drinking-alcohol-cure-coronavirus-200427163529629.html>;

https://www.cnn.com/us/live-news/us-coronavirus-update-04-24-20/h_d3b4da7f4ba4054207abe4cf783b10f4

Technology has changed the way information is produced, distributed and consumed

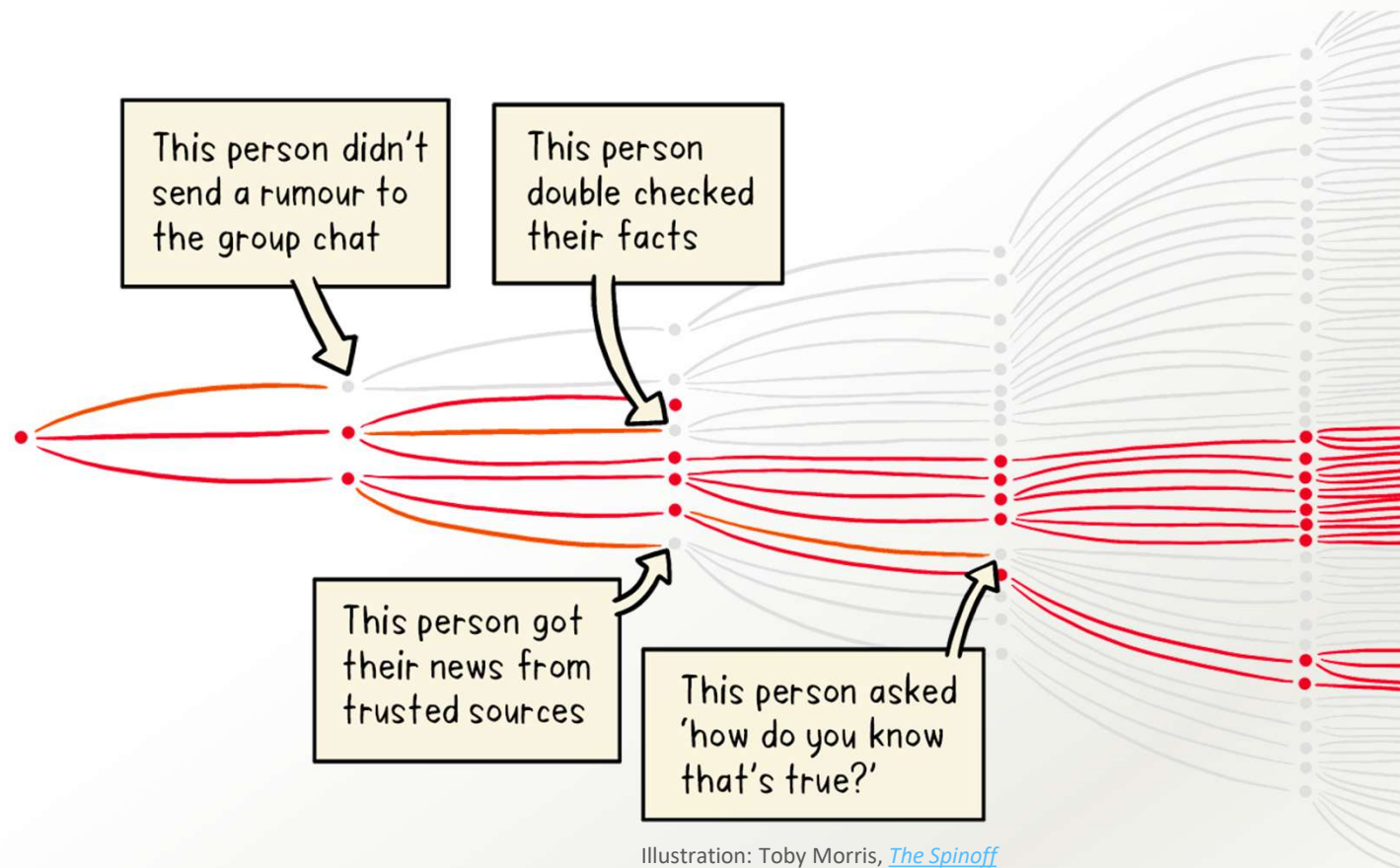


VS.



- An infodemic thrives online and offline, requiring a whole-of-society response across the global communication ecosystem
- Managing the infodemic has become more challenging with more rapid spread of mis- and dis-information through digital media
- Infodemic management will help us better manage this pandemic and more quickly tackle new and resurgent health threats

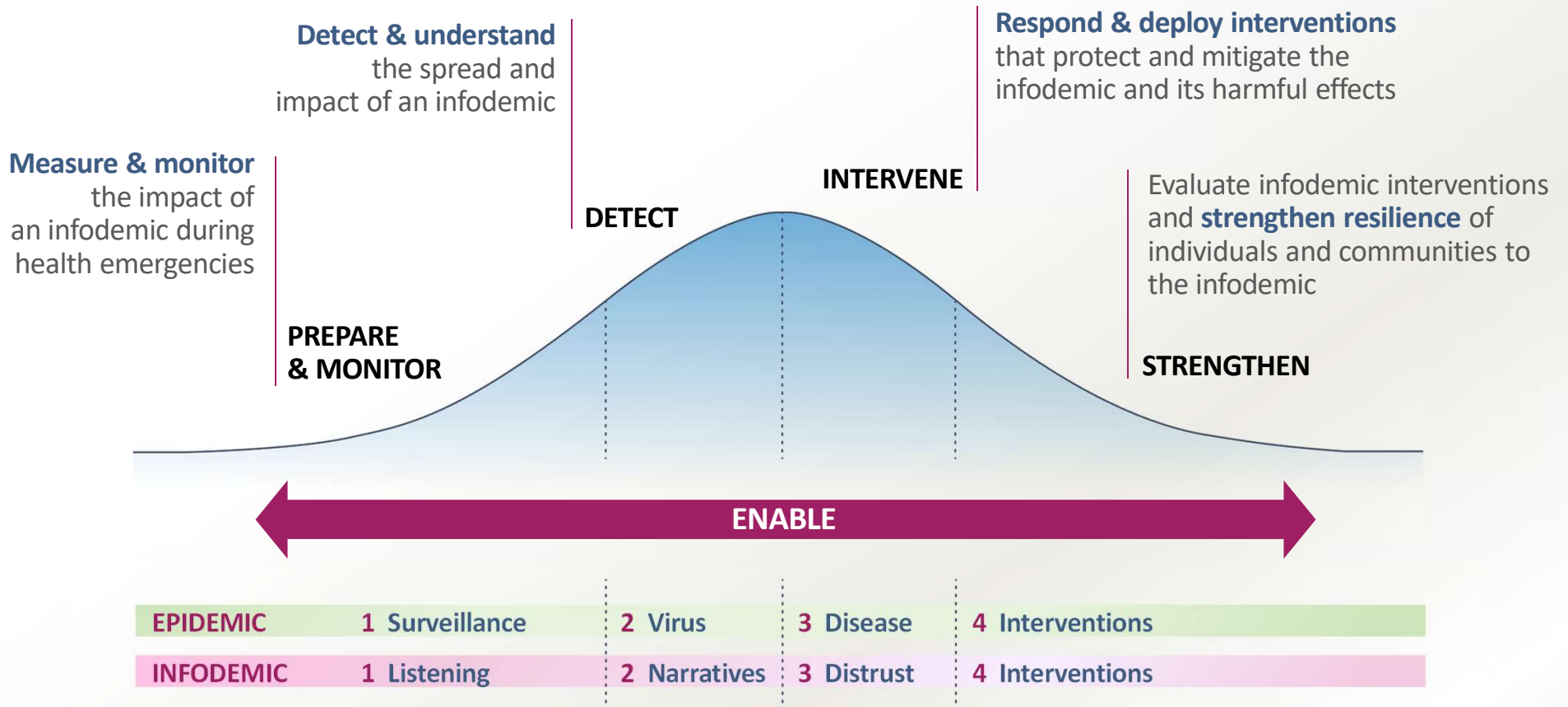
How people receive, process and act on information varies



Understanding how information originates, evolves and spreads through different platforms and channels is key to managing the infodemic

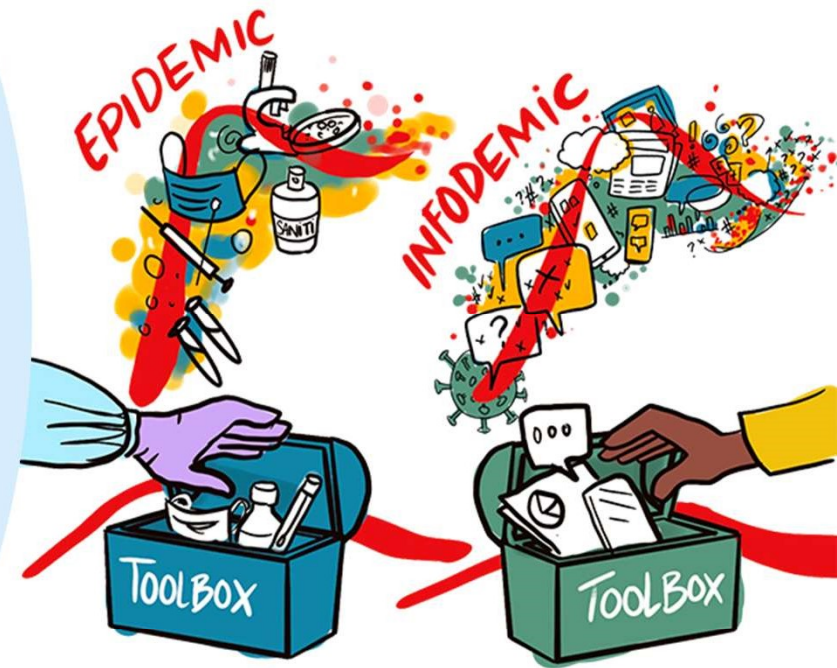
To manage the infodemic, we need an evidence-based framework, like that of epidemiologists

Infodemic management needs to be mainstreamed into public health preparedness and response plans because flattening the infodemic curve will help us to flatten the epidemic curve

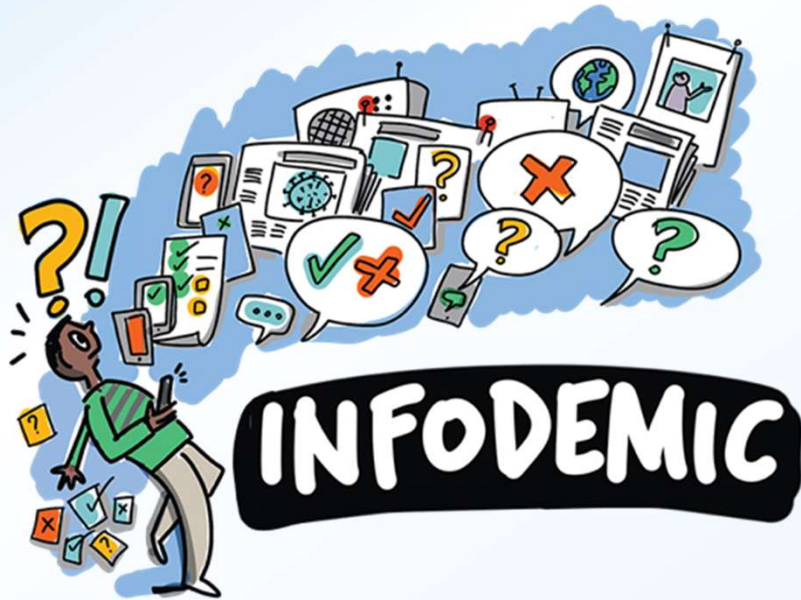


The right information at the right time, in the right format

- While it is not possible to completely eliminate, **it is possible to manage the infodemic**
- Infodemic management aims to ensure people have **access to factual information in a timely manner that is easily understood**; so they may rapidly adopt behaviours to protect health and the health of others during an epidemic
- Infodemic management must :
 - Be backed up by science
 - Rely on risk-based and evidence-based initiatives that empower communities to take action
 - Make use of best practices, including sharing experiences and continuous learning



Infodemic management interventions aim to influence health behaviour during epidemics



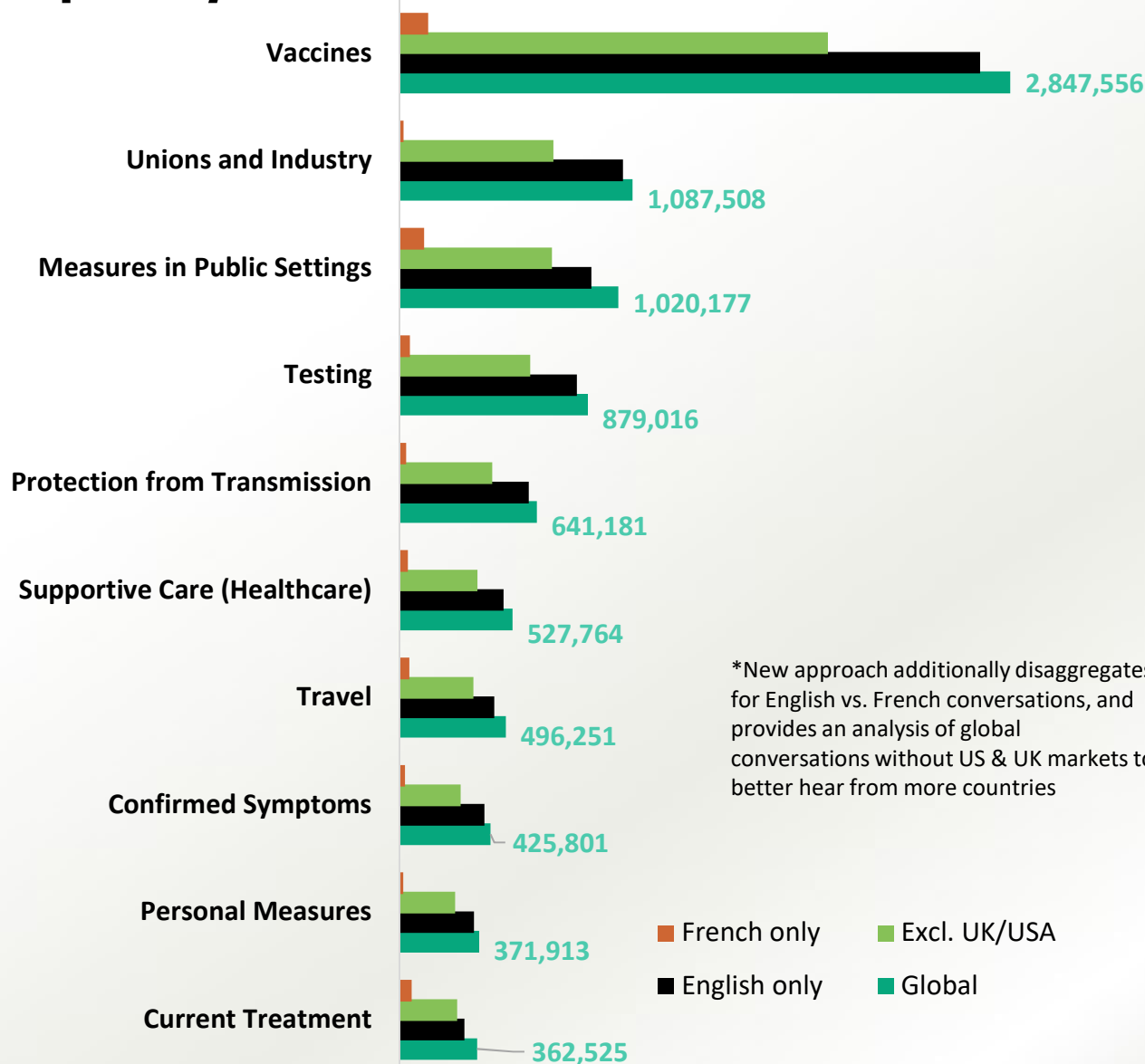
Infodemic interventions

- 1 LISTEN TO CONCERNS
- 2 TRANSLATE SCIENCE & COMMUNICATE RISK
- 3 PROMOTE RESILIENCE TO MISINFORMATION
- 4 ENGAGE & EMPOWER COMMUNITIES

Quantifying information through social listening

WHO uses a digital listening approach which analyses and quantifies information associated with COVID-19. For example, top keywords and topics are tracked in order to identify trends and help manage the infodemic.

Top topics by volume Report #56, 18 Feb - 24 Feb 2021



*New approach additionally disaggregates for English vs. French conversations, and provides an analysis of global conversations without US & UK markets to better hear from more countries

EARS: AI-powered tool for automated digital listening in countries

Public tool for automated social listening and bespoke analytical platform for infodemic analysis



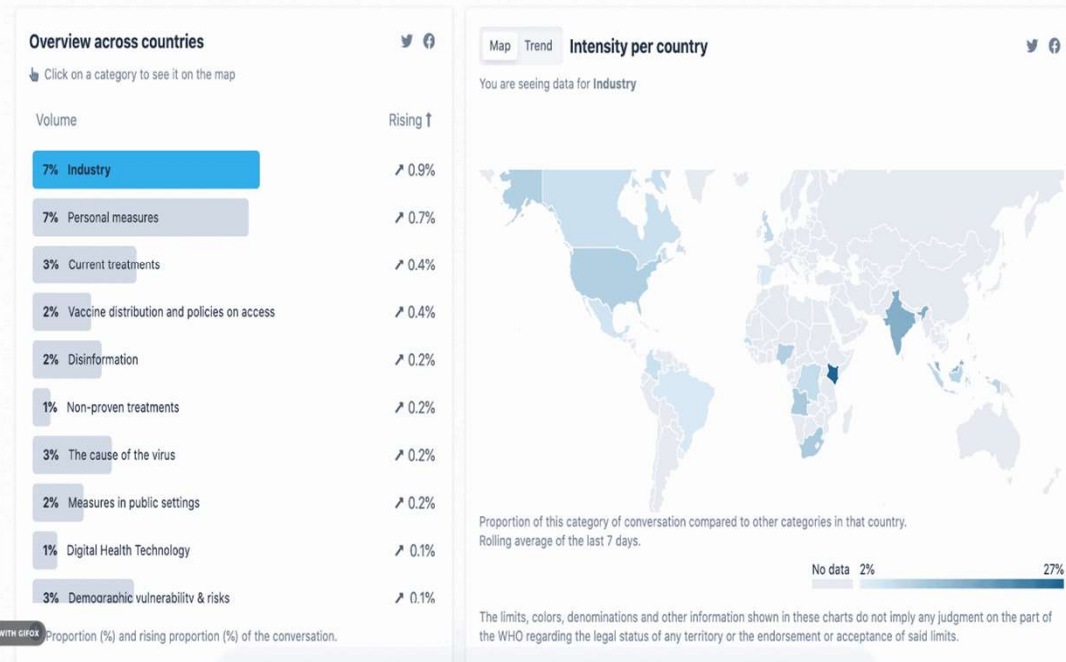
Early AI-supported Response with Social Listening

COVID-19 online conversations in 20 pilot countries

- Enable health information professionals to **respond earlier to the infodemic** to fill information voices and inoculate against misinformation with a **real-time analysis** of narratives of the general public.
- Building world-leading information infrastructure to serve countries to understand attitudes of the general public. Moving from surveys, to datapools and AI analytics that are **real-time, flexible and locally adaptive**.
- **Covering 20 countries for piloting, data collected through English, French, Spanish, Portuguese languages**

SEE DATA FROM: Last 7 days All categories

What are people talking about?



[Link](#)

EARS case study: India (22.–28.02.2021)

What is India talking about ?

Top (and rising) keywords and hashtags



Analysis 1



Benchmark Analysis

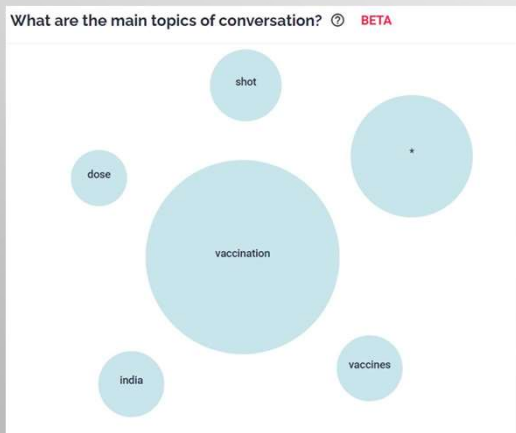
	Avg.	India	Indonesia	Kenya	Malaysia	Malta	Mexico	Nigeria
3%	3%	2%	2%	2%	3%	2%	2%	
2%	1%	5%	1%	2%	1%	1%	1%	
1%	0%	0%	0%	0%	0%	1%	0%	
1%	1%	2%	1%	1%	0%	0%	4%	
0%	0%	0%	0%	0%	0%	0%	0%	
0%	0%	0%	0%	0%	0%	0%	0%	
0%	0%	0%	0%	0%	no data	0%	0%	
3%	3%	2%	2%	1%	3%	2%	3%	
14%	9%	15%	7%	12%	18%	17%	13%	
2%	1%	2%	3%	2%	1%	4%	2%	

identify outliers in various categories

Analysis 4



Covid-19 Vaccine: Raw Feed Analysis



Cluster Analysis

What are the most important terms?

Keyword	Order by volume
1. covid	423 docs
2. vaccination	276 docs
3. vaccine	233 docs
4. 19	226 docs
5. 1	154 docs
6. 60	150 docs
7. march	149 docs
8. 45	125 docs
9. comorbidities	92 docs

Important Keywords

Analysis 3



Snapshot of Conversation: Covid-19 Vaccine

14:18 - Feb 24, 2021

Jalandhar DC #GhanshyamThori briefs that registration of #covid19 vaccine for general population will start from 1st March for 60 plus age group and those who are 45 years plus but with co-morbidities. we appeal all

[read more](#)

18:26 - Feb 24, 2021

Covid Vaccination Drive, Phase 2: How To Register Yourself To Get Coronavirus Jabs From Monday – All You Need To Know

<https://t.co/Dzw5r69ZQ0>

18:26 - Feb 24, 2021

Covid Vaccination Drive, Phase 2: How To Register Yourself To Get Coronavirus Jabs From Monday – All You Need To Know

<https://t.co/Dzw5r69ZQ0>

21:10 - Feb 24, 2021

One-shot coronavirus vaccine by Johnson & Johnson is safe and effective, US FDA finds

#southchinamorningpost #usnews #worldnews #IdiotPM

<https://t.co/a1eDgSIJXT>

01:34 - Feb 24, 2021

India's Co-Win app will look at the medical history of those who need to be vaccinated, especially elders and those who have comorbidities in the next phase of Covid-19 vaccination drive.

<https://t.co/M8yyfeRMKK>

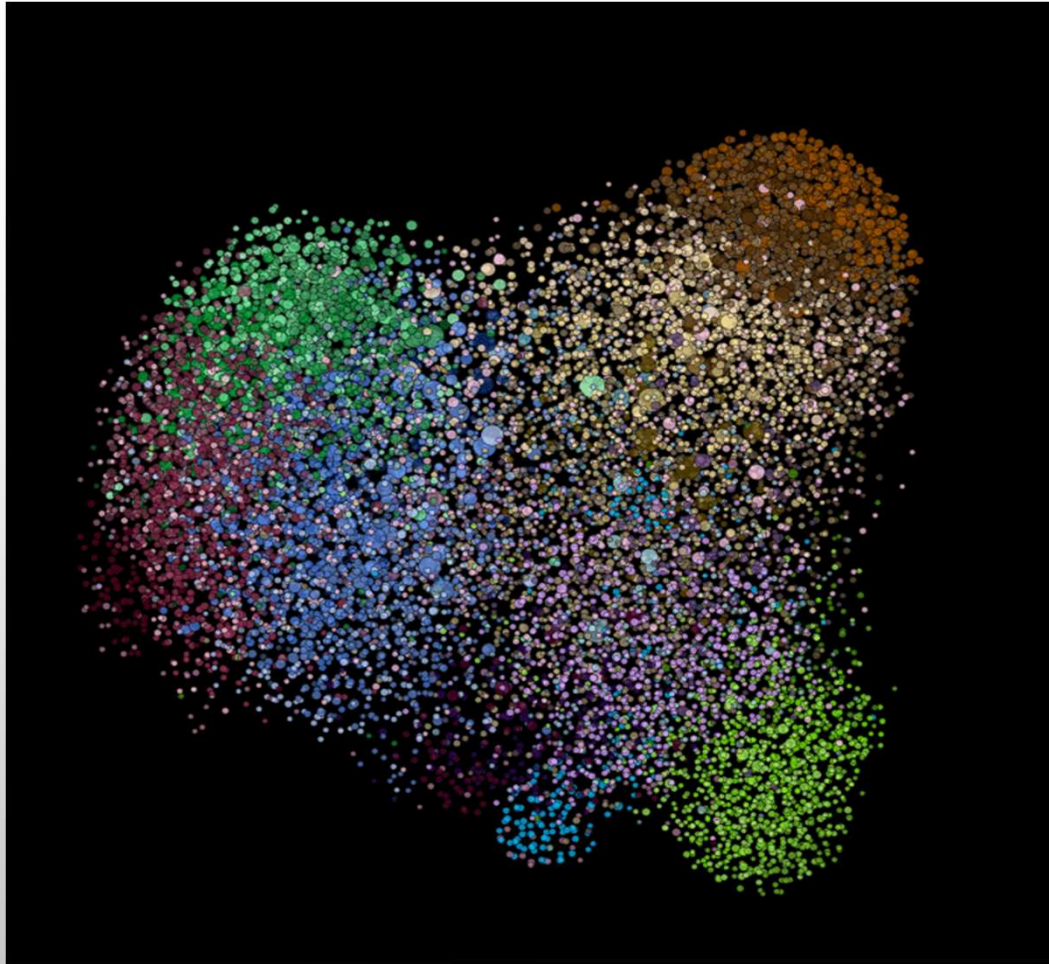
[read more](#)

11:33 - Feb 24, 2021

@MoHFW_INDIA @drharshvardhan Sir, we can use the existing infrastructure of CGHS Wellness Centres for Covid19 vaccination to Central Govt Employees. This will reduce load on Govt hospitals. Thank

[read more](#)

US HCWs, COVID-19 & Vaccines: Network Overview



- Public Health & Research
- Medical Specialists & HCWs
- Medical Advocacy
- Political Media
- Local Politics
- Right-wing Support & QAnon
- Left-Wing
- Music & Entertainment

Twitter network map showing accounts that engaged with a set of hashtags related to COVID-19 and vaccination in the US, for example: #CovidVaccine and #PfizerVaccine, between November 21 - December 21, 2020.

Main takeaways → Next steps

1. HCWs are at the edges of the network maps – and there are fairly distinct clusters
 - we need to identify influencers who can bridge socio-politically polarized groups to break out of echo chambers online (i.e., centrists)
2. HCW social media conversations are largely positive and apolitical though they are voicing frustration about rollout logistics, which can erode patient confidence
 - we need to encourage prioritization of content shared, including encouraging positive reinforcement about what is going 'right' to help build vaccine confidence
3. Some instances of HCWs mocking people concerned about vaccines, which can further alienate those who are vaccine-questioning
 - we need to support development of empathic engagement skills with training that is fast and easy (to avoid overburdening), foster norm-setting through professional networks, and consider incentives and positive reinforcement (e.g., awards for effective communicators)
4. Significant social media presence of nurses
 - priority group for engagement with customized content for rapid dissemination online and targeted talking points to help patients in-person better understand potential vaccine side effects to reduce rates of vaccine rejection

Translating science into protective measures

WHO video guidance on COVID-19

MASKS



[Medical and fabric masks: who wears what when?](#)



[How to wear a fabric mask safely](#)



[How to wear a fabric mask](#)



[How to wear a medical mask](#)

TRANSMISSION



[How to break the chains of transmission](#)



NEW!
[Three factors help you make safer choices during COVID-19](#)

PROTECTING OURSELVES



[How to protect yourself against COVID-19](#)



[Seven steps to prevent the spread of the virus](#)



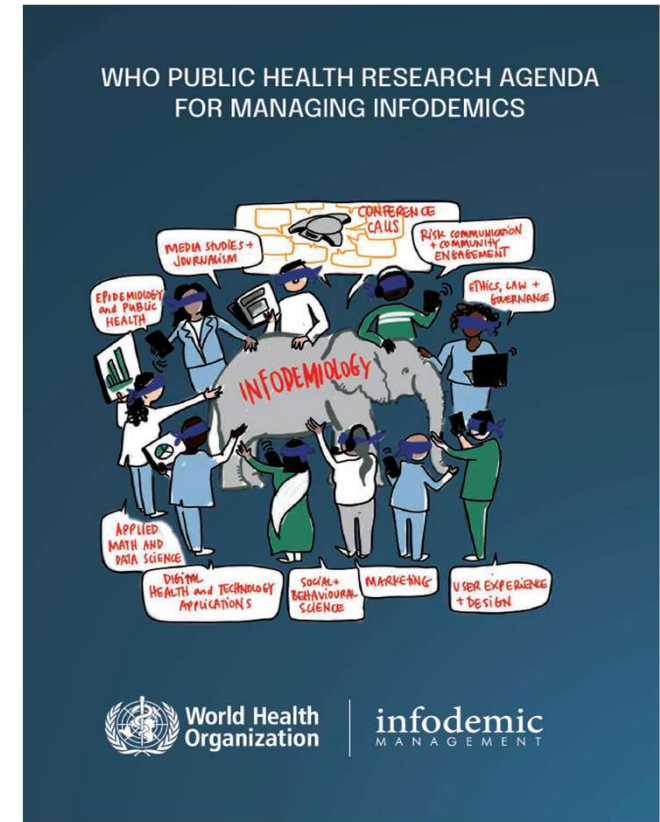
Being resistant to misinformation requires an understanding of how information flows, but also understanding of cognition and behaviour

Public Health Research Agenda for Managing Infodemics

- Infodemic management is an evolving area of research and practice.
- The aim of the research agenda is to foster a coordinated and evidence-based approach to ensure better access to reliable and understandable health information so that individuals and communities can protect themselves during health emergencies.
- This includes developing new tools and approaches for inoculating against misinformation and promoting resilience to it.

Examples of questions we need to ask and answer:

- **How do overwhelming amounts of information** affect behaviour in emergencies and what interventions are effective in addressing it?
- **How does online behaviour** affect offline action?
- **How does the infodemic** affect cognition and influence seeking of health services?
- **How does the role of policy interventions** successfully address and mitigate health misinformation?
- **How does the infodemic** affect closed networks and vulnerable populations?



Link: <https://apps.who.int/iris/bitstream/handle/10665/339192/9789240019508-eng.pdf?sequence=1&isAllowed=y>

Public Health Research Agenda for Managing Infodemics, February 2021

5 research streams with 65 priority questions

Stream 1: Measure and monitor the impact of infodemics during health emergencies

- 1.1. Standardize taxonomies and classifications
- 1.2. Develop new metrics to measure and quantify infodemics
- 1.3. Analyse and triangulate data from multiple sources
- 1.4. Improve evaluation approaches for infodemic interventions.

Stream 2: Detect and understand the spread and impact of infodemics

- 2.1. Understand how information originates, evolves and spreads on different platforms and channels
- 2.2. Assess the role of actors, influencers, platforms and channels
- 2.3. Understand how misinformation affects behaviour in different populations
- 2.4. Develop regulatory and ethical principles to mitigate the spread and propagation of harmful health information.

Stream 3: Respond and deploy interventions that protect against the infodemic and mitigate its harmful effects

- 3.1 Design a behavioural change model applicable to infodemic management
- 3.2. Intervention design for different levels of action to mitigate the infodemics.

Stream 4: Evaluate infodemic interventions and strengthen the resilience of individuals and communities to infodemics

- 4.1. Develop interventions that address individual, community, cultural and societal factors affecting trust and resilience to misinformation
- 4.2. Understand and learn from the way misinformation has affected behaviour among different populations and in different contexts for specific infodemics
- 4.3. Identify factors associated with successful infodemic management by health authorities, the media, civil society, the private sector and other stakeholders.

Stream 5: Promote the development, adaptation and application of tools for managing infodemics

- 5.1. Use implementation research evidence in programme improvement and policy development
- 5.2. Promote evidence-based interventions and approaches between countries
- 5.3. Improve effectiveness and response times to the infodemic during acute health events.

[Link: https://apps.who.int/iris/bitstream/handle/10665/339192/9789240019508-eng.pdf?sequence=1&isAllowed=y](https://apps.who.int/iris/bitstream/handle/10665/339192/9789240019508-eng.pdf?sequence=1&isAllowed=y)

WHO works with communities to protect health during epidemics

- WHO EPI-WIN has established representative groups from key communities (faith-based, youth, employers and workers) who communicate regularly with WHO and give input on projects and initiatives. Examples:
 - **Co-development** of practical guidance on COVID-19 education, preparedness and response to support faith-based organizations and faith communities
 - **Collaborating** with young people to design creative, engaging and relevant communication around ‘reducing transmission of COVID-19’
 - **Facilitating** a virtual dialogue series together with leaders and representatives from the World of Work
- Since the beginning of the pandemic, WHO EPI-WIN has hosted **80 COVID-19 related webinars** with **participants from 149 countries**

Examples of youth entries for ‘Reducing transmission’ Design Lab



Working together to support public health

- Launched in June 2020, the Collective Service is a partnership between the *International Federation of Red Cross and Red Crescent Societies (IFRC)*, the *United Nations Children's Fund (UNICEF)* and the *World Health Organization (WHO)*. The Collective Service leverages active support from the Global Outbreak Alert and Response Network (**GOARN**) and key stakeholders from the public health and humanitarian sectors.
- The **Collective Service** works on **risk communication and community engagement (RCCE)** to ensure consistent, systematic and predictable support to partners involved in public health, humanitarian and development responses to the pandemic

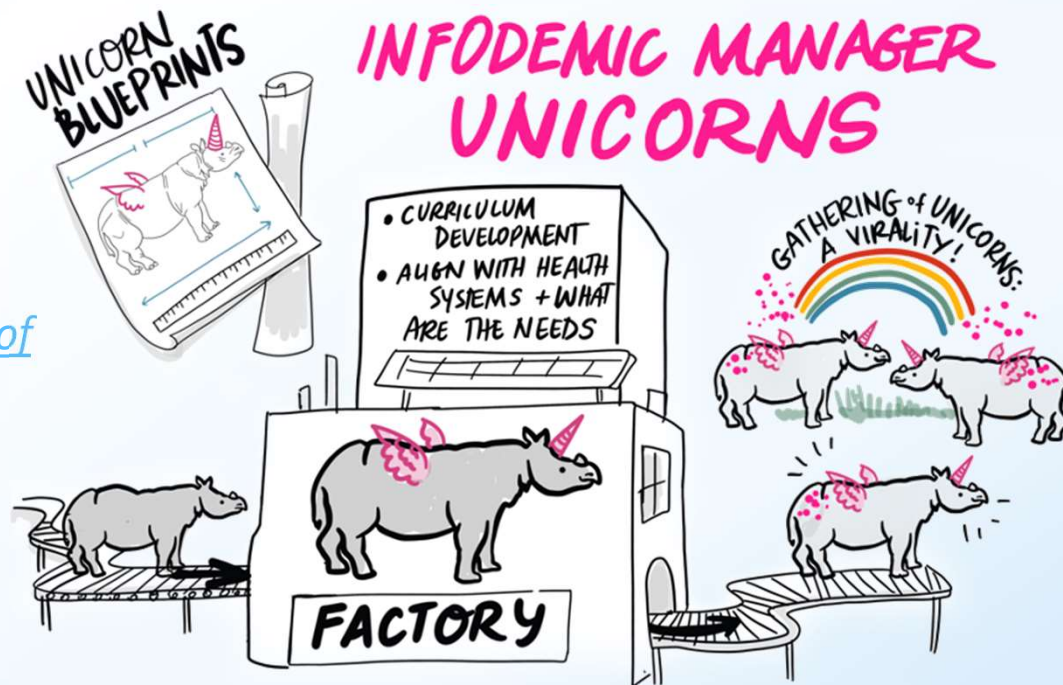


First global WHO infodemic manager training, November 2020

- 278 participants from 78 countries
- Various [lectures by infodemic management specialists](#) on topics such as:
 - [Tools for analysis of the infodemic](#)
 - [Public health and epidemiology in context of infodemic response](#)
 - Risk communication and community engagement

Link to training curriculum:

<https://www.who.int/teams/risk-communication/infodemic-management/1st-who-training-in-infodemic-management>



Other resources on infodemic management

WHO RESOURCES

- [Infodemic management](#)

WHO infodemic management work and activities

<https://www.who.int/teams/risk-communication/infodemic-management>

- [EPI-WIN updates](#)

An archive of COVID-19 related weekly updates

<https://www.who.int/teams/risk-communication/epi-win-updates>

- [3rd Virtual Global WHO Infodemic Management Conference](#)

Whole-of-society challenges and solutions to respond to infodemics

<https://www.who.int/teams/risk-communication/infodemic-management/3rd-virtual-global-who-infodemic-management-conference>



OTHER RESOURCES

- [Sending SMS messages for the general public for COVID-19 response](#)

WHO, ITU and UNICEF are collaborating to facilitate sending short messages SMS to inform the general public about COVID-19

<https://www.itu.int/en/ITU-D/ICT-Applications/Pages/COVID-19-public-SMS.aspx>

- [When old technology meets new: How UN Global Pulse is using radio and AI to leave no voice behind](#)

UN Global Pulse can offer speech to text (radio) listening

<https://www.unglobalpulse.org/2019/04/when-old-technology-meets-new-how-un-global-pulse-is-using-radio-and-ai-to-leave-no-voice-behind/>

- [UNESCO series on journalism education](#)

UNESCO medio/journalist training

<https://en.unesco.org/unesco-series-on-journalism-education>



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