Whole-of-society challenges and solutions to respond to infodemics
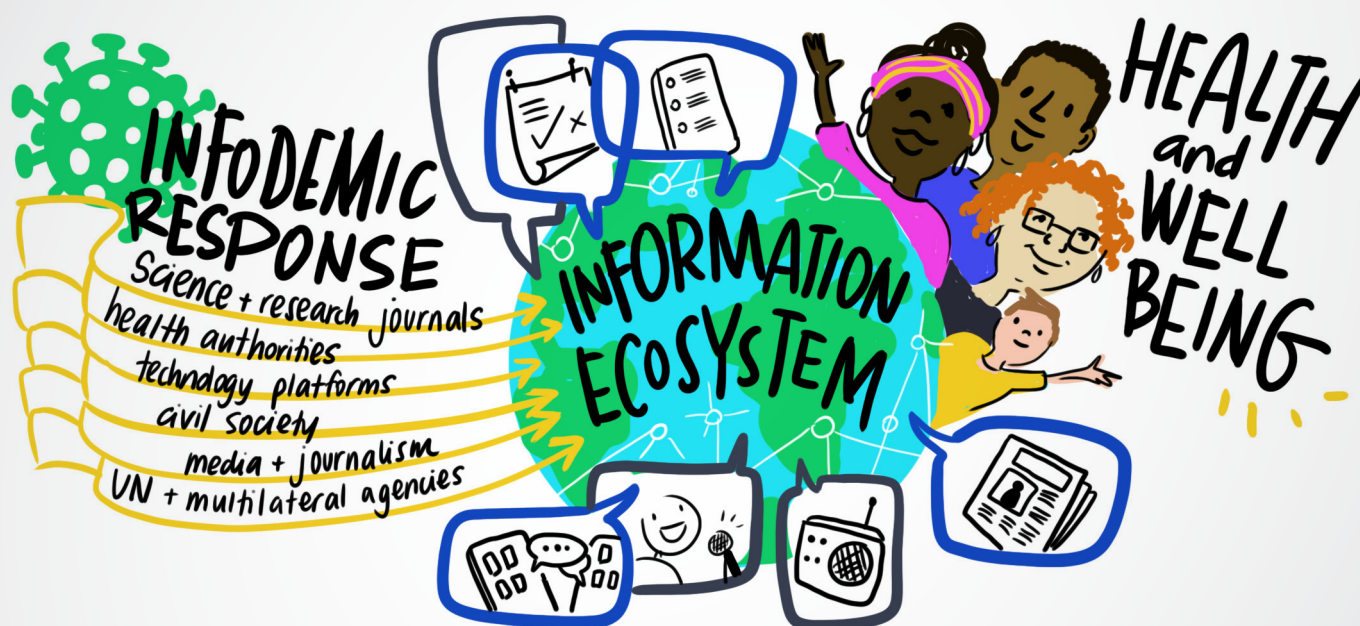
Online, October–December 2020

World Health Organization | infodemic MANAGEMENT

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Contents

Executive summary

The pandemic has been complicated and worsened by an *infodemic*: an overabundance of information that spreads alongside an epidemic, making it hard for people to take the right decisions to protect their health. The sheer volume of information is daunting, and the fact that much of it is either mis- or disinformation makes the problem worse.

If people act on false health information it can impact their health. If enough people do not follow the correct health guidance, it will prolong this pandemic. Until a vaccine or vaccines are widely available *and* – crucially – widely accepted by the public, everyone remains at risk. It is critically important that stakeholders across the world, across different sectors, professions and parts of society, act with urgency and in solidarity to mitigate this infodemic.

From 20 October to 11 December 2020, WHO's 3rd Infodemic Management Conference set out to identify the top infodemic challenges and approaches for each of six stakeholder groups with particular, immediate potential to address infodemics. These were:

1. The science and research community
2. Country health authorities
3. Technology companies and social media platforms
4. Non-governmental organizations (NGOs) and civil society groups
5. Media and journalism
6. UN agencies and multilateral organizations.

In each of these tracks, a series of discussions held over several weeks crystallized the key infodemic-related challenges in each of these sectors. Each track generated a number of key approaches and action points to address their challenges of the infodemic. These are presented in this report.

The common conclusions, those that ran across all the tracks, were those that emphasized the

If enough people do not follow the health guidance, it will prolong this pandemic.

whole-of-society theme. Every profession is coping with a novel situation, a challenge of rare and intimidating scale, and a need for increased and better partnerships. The world needs wider and enhanced collaboration, and better tools and systems for verifying, clarifying and sharing information, everywhere. The most vulnerable and excluded populations around the world are those most at risk from COVID-19, and those most in need of collaboration between the generators and refiners of knowledge in scientific and academic institutions and ministries around the world; the curators of information and facilitators of its spread across digital platforms and media channels; and the NGOs, UN bodies and civil society organizations that advocate for their needs and work to meet them.

Throughout this meeting, people came together from across society – including youth activists, community leaders, scientists, journalists, public health experts and professionals, data scientists and technicians, policy-makers, tech companies, NGOs, health authorities, UN staff and others – and declared a shared commitment to managing and mitigating infodemics in support of equitable health and well-being. This resulted in an important call to action, designed to add momentum to a global movement to manage infodemics, promote access to good quality health information and mitigate harm from health misinformation, online and offline.

This call to action is an invitation to every organization and every person to add their name in a show of solidarity and commitment to the cause.

Please add your name to the call at:

https://www.who.int/news/item/11-12-2020-call-for-action-managing-the-infodemic

Context

Coronavirus disease 2019 (COVID-19) is a contagious disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). The first known case was identified in Wuhan, China, in December 2019. The disease has since become a pandemic that has damaged societies and economies around the world.

The human right to health requires equitable access to good quality health information. Achieving this for everyone would accelerate the process of ending and recovering from this pandemic.

> The sheer volume of information is daunting, and the fact that much of it is either mis- or disinformation makes the problem worse.

But instead, the pandemic has been complicated and worsened by an *infodemic*: an overabundance of information that makes it hard for people to take the right decisions to protect their health. The sheer volume of information is daunting, and the fact that much of it is either mis- or disinformation makes the problem worse.

Rapid amplification and dissemination of information and misinformation online, at a time when people are more physically and socially distanced than ever before and many rely on their computers and phones to connect to the wider world, adds a concerning level of complexity to the infodemic.

If people act on false health information it can have an impact on their health. If enough people do not follow the correct health guidance, it will prolong this pandemic. Until a vaccine or vaccines are widely available *and* – crucially – widely accepted by the public, everyone remains at risk.

As our lives, communities, organizations and countries continue to be affected by COVID-19, it is of critical importance to act with urgency and in solidarity to mitigate this infodemic, and realize the right to good quality health information for everyone, everywhere.

Third Infodemic Management Conference: the process
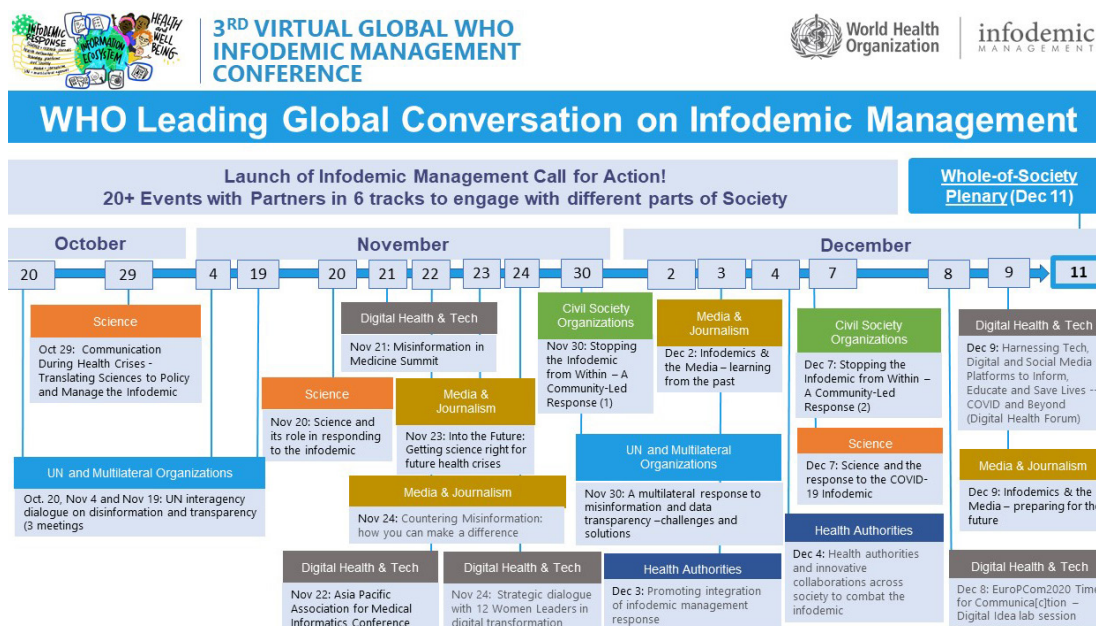
Momentum is building behind infodemic management as a global priority. WHO began to hold major conferences on the topic early in 2020, the first two of which brought together stakeholders from over 15 scientific disciplines to establish a global infodemic management framework, 50 key actions for infodemic response, and a public health research and practice agenda to find effective, evidence-based measures to fight infodemics.

This report covers the Third Virtual Global Infodemic Management Conference, which took place over six weeks between 20 October and 11 December 2020, in an extended series of virtual conversations. Its goal was to define and kick-start a true whole-of-society response to the infodemic. It prioritized sharing lessons and identifying concrete problems and answers that everyone, across all societies, can commit to addressing immediately.

The conference comprised 21 different online dialogues, workshops and webinars discussing infodemic challenges and approaches and ways to catalyse action. The meetings were organized over six subject tracks for six stakeholder groups with particular, immediate potential to address infodemics. These were:

1. The science and research community
2. Country health authorities
3. Technology companies and social media platforms
4. NGOs and civil society groups
5. Media and journalism
6. UN agencies and multilateral organizations.

This conference aimed to set new standards for what can be achieved with a remote, virtual approach. People came together from across society, including youth activists, community leaders, scientists, journalists, data scientists and technicians, policy-makers, tech companies, NGOs, health authorities, UN staff and others. They traded and refined ideas, and they declared a shared commitment to managing and mitigating infodemics in support of equitable health and well-being.

With over 200 participating organizations, hundreds of panellists and thousands of people attending the panels, this was a whole-of-society approach to engagement. It recognized that every person or entity is both part of the problem and part of the solution: everyone contributes information and shares responsibility for how they do it, the tools they use and share, and the ways in which they align with other entities and organizations.

On 11 December, the outcomes of these meetings were presented in a live public session, open to all. It was attended by a large and diverse group of stakeholders keen to champion healthy communication to ensure good health for all.

This report is a summary of those outcomes.

Introduction

Providing access to good quality health information for everyone would accelerate the process of ending and recovering from the COVID-19 pandemic.

Often, however, COVID-19 has amplified fear and uncertainty. As previous WHO infodemic conferences during the pandemic have shown[1][2][3], scientific evidence has been misrepresented and devalued. People worldwide have been stressed and worried, bombarded with information from family, friends, social media, the Internet, news, television and elsewhere. Some are sceptical and dismissive, others fatalistic. The infodemic has brought with it mistrust and conflict, which have corroded the social cohesion that sustains societies and the public institutions that support health and well-being, causing flashpoints that can lead to greater conflict and deeper distrust. The effects are often most debilitating where inequality is greatest.

This is an infodemic: a phenomenon that moves in parallel with the pandemic. It has had a desperately heavy impact on people's reactions and responses to COVID-19 and the measures taken to control it.

Everyone is looking for answers about how to navigate the world and protect themselves and their loved ones. Managing the infodemic better could bring huge benefits, including more effective control of COVID-19, improved capacity to address emerging and future health threats, and better peace of mind for people able to navigate the sea of information that surrounds them. But seeking reliable guidance means filtering huge amounts of information – some true, some outdated, some outrageously false. A lot of the time, it is a combination of all of these.

Living in the information age can be a double-edged sword. While it is possible to access information on health emergencies 24 hours a day, constant exposure to huge volumes of information makes people vulnerable. Getting information management right equates to good decisions and saving and improving lives. Getting it wrong means bad decisions and people getting ill and dying as a consequence.

Infodemic management is as important as personal protective equipment, therapeutics and vaccines, because it gives people the tools to manage risk themselves and respond safely to the world around them.

The infodemic challenges society's goals for human development. Controlling it calls for a whole-of-society response. The countries that have responded best have been those that have taken an inclusive, whole-of-government, whole-of-society approach to the response, emphasizing unity, equity and solidarity.

The infodemic response cannot be about top-down communication or glossy reports: it is about building partnerships around evidence-based answers and interventions. It is about delivering tools, training and support for communities to blunt the impact of misinformation through collective action. It is about increasing access to information, supporting journalists so they can cover their subjects with expertise, in safety and with professional freedom. And it is about improving media and information literacy to empower individuals and communities.

WHO's first two infodemic conferences went some way towards showing that the needed solutions are emerging. Tools are in place. Now, commitment must become practice. Collective engagement to improve information management, built on the outcomes of previous work, opens the road to develop clear, accessible, evidence-based guidance that helps communities find what they need and deflect harmful misinformation.

No single institution has the capacity to fight pandemics or infodemics alone. The need for collaboration across different actors, different parts of different societies, is massive. Each person must commit to their part.

[1]   Managing the COVID-19 infodemic: a call for action. Geneva: World Health Organization; 2020. (https://www.who.int/publications/i/item/9789240010314, accessed 12 May 2021).

[2]   WHO First Infodemiology Conference – how infodemics affect the world and how they can be managed: meeting highlights and documents [website]. Geneva: World Health Organization; 2020. (https://www.who.int/teams/risk-communication/infodemic-management/1st-who-infodemiology-conference, accessed 12 May 2021).

[3]   3rd virtual global WHO Infodemic Management conference [website]. Geneva: World Health Organization; 2020. (https://www.who.int/teams/risk-communication/infodemic-management/3rd-virtual-global-who-infodemic-management-conference, accessed 12 May 2021).

Science and research

This statement is the result of the discussions in the *Science and research community* track.

> *"This is how science actually works. It is less the parade of decisive blockbuster discoveries that the press often portrays, and more a slow, erratic stumble towards ever less uncertainty"*
>
> ♦ Future pandemics will emerge more often, spread more rapidly, do more damage to the world economy and kill more people than COVID-19 unless there is a transformative change in the global approach to dealing with infectious disease.
> ♦ The checks and balances that exist between science, the media and the public have become so porous that information is constantly streaming through. The public is getting a dizzying ringside view of how science works. There's tremendous pressure on scientists and journalists to sound certain, when uncertainty is the essence of science itself.
> ♦ There has been an explosion of research. Scientists can find ways to communicate their work in plain language to support health professionals and communicators. Journal and preprint editors play critical roles in curating new information.
> ♦ To empower ethnic minorities and migrant communities to protect their health, scientific evidence from authentic sources should be disseminated in local languages.

Introduction

From the moment they became aware of an outbreak of pneumonia of unknown origin in December 2019, scientists around the world leapt into action to find answers to the questions everyone suddenly had, and solutions to the many challenges that rapidly emerged.

COVID-19 was a new disease caused by a newly identified virus, and the information and misinformation swirling around it soon subjected the global health and science communities to a backlash from segments of the general public. Conspiracy theories and rumours called the value of science and biotechnology into question, or provided erroneous interpretations of new findings. All this highlighted critical gaps in science literacy in civil society. The need to communicate and share important findings in accessible ways quickly became evident.

The infodemic has been characterized by incomplete understanding of "good" science in a wide range of

scientific fields, including but not limited to epidemiology, virology, medical sciences such as pathophysiology and immunology, clinical research methods such as clinical trials, development of diagnostics and vaccines, public health and the behavioural sciences. This incomplete understanding has been accompanied by over-optimistic interpretation of poorly designed or small studies, and an abundance of mis- and disinformation. Long-established ways of working – such as through lengthy peer-reviewed scientific publications – may alone no longer be fit for purpose.

At the same time, the rush for preprint publication of non-peer reviewed material has provided ample material for theorizing by well-meaning but largely unqualified amateur scientists. The constant evolution of science for a new virus and a new disease only adds to the confusion, and policy-makers appear to be frequently changing direction. All this leaves room for mistrust.

WHO has in the past advocated rapid publication of science and data during emergencies, as previous outbreaks have shown that conventional approaches to scientific publication can be too slow to help manage an outbreak response. This can lead to rushed work, and reduces or eliminates time for peer review, causing other problems, particularly in public understanding.

There is therefore a need to improve fast-track publication and ensure science is communicated in a way that helps decision-making and public understanding. Novel working methods are needed to communicate science in real time as it evolves, and scientists may have to reach outside their own communities to find them.

In this track of the conference, scientists, public health professionals and communicators explored the nature of high-quality science and how to communicate the scientific method and research findings in ways that build trust and understanding, avoid misconceptions and inspire people to manage their own risk. The conversation was framed to capture the challenges and possible solutions in how research is conducted, how science is curated, and how findings are communicated to public health policy-makers and the general public.

Challenges

How research is conducted: COVID-19 has seen an abundance of small or poorly designed studies, waste and duplication and an imbalance of topics. Quality of design and implementation suffered in the rush to put in place small, non-randomized studies of commonly used therapeutic agents, or to extrapolate from limited clinical observations when larger coordinated studies would have provided clinically relevant answers more quickly. Some studies have been rapidly put together without technical or ethics reviews. Some aspects of the pandemic have been overstudied and others ignored completely. For example: early on, few trials looked at the wide range of public health and social measures deployed, despite the fact that they were being widely used as mainstays of pandemic response around the world.

The way research is curated: For a long time the scientific community has relied on paywalled journals and a slow peer-review system, often biased towards the health systems of wealthier countries, that does not always meet the world's needs. The pandemic has highlighted that policy-makers, health workers, scientists and others need faster access to high-quality research and results.

In order to meet this need for speed, COVID-19 has also led to greater use of published preprints, with upwards of 60 preprint servers active during the pandemic. This has led to immediate, widespread public sharing on social media of unvetted scientific information that is easily misinterpreted. This approach allows scientists to do a lot of vetting themselves, but also allows others to access raw information and share it with incorrect conclusions. Communication of science via press release has been another feature of the pandemic, leading to mistrust when used as a channel of choice by pharmaceutical companies or even governments.

The way research is communicated: The pandemic has eroded public trust in experts, partly because COVID-19 is a fast-moving area in which understanding is constantly changing. But policy-makers need information fast in order to make short-term decisions. This is a different environment to that in which

science has worked to date; scientists have historically not had to explain to the public how it all works, or why people change their minds with new evidence. Now that process is visible to all. An abundance of new communication channels and self-appointed experts are creating confusion around what information is real and what can be trusted.

Approaches and action points

The scientific community has clearly understood the challenges around communicating science during this pandemic and – as represented by the panel discussions in this track – embraced the opportunity to meet these challenges. In their work to ensure that science around the world is rigorous yet accessible, scientists are encouraged to be mindful not only of their responsibility to science but also of their accountability to the public.

- ❖ The scientific and clinical communities must ensure that all research is of high quality, collaborative and ethical, applying the best, most appropriate methods to address research questions in a range of contexts and populations, and using existing mechanisms and expanded networks for collaboration within and across countries.
- ❖ Scientists should support transparency and data sharing wherever possible and offer real-time feedback on studies, while acknowledging any limitations or pending review of findings. Timely and transparent communication is essential to help people understand what the scientific community knows at any given time and what it does not, and to clarify the uncertainty and the trade-offs.
- ❖ Scientists must be proactive in ensuring that the work they publish is understood as intended. For example, by including plain language summaries in every publication or public communication.
- ❖ Researchers and preprint editors should encourage the proper use of preprints, ensuring full disclosure that the research and findings reported have not been fully vetted.
- ❖ The scientific and editorial communities should move towards a transparent form of post-publication peer review, giving other scientists and professionals opportunities to offer reviews, such that manuscript reviews become "living documents".
- ❖ Policy-makers and public health professionals should be clear with the public about how decisions are made, with transparency about the scientific evidence and uncertainty underlying those decisions.
- ❖ Scientists and public health professionals should work together with communicators to explore new methods of reaching a wider audience, including communicating in locally appropriate languages.
- ❖ Science communicators must engage with different communities, empowering them to find their own solutions and emphasizing the importance of partnership and collaboration.
- ❖ The use of fact checkers should be encouraged to support the work of scientists and to check statements and sources of communicators on different platforms.

> ### *Call to action for the scientific community*
>
> ♦ Conduct good quality, collaborative, ethical research
> ♦ Embrace transparency
> ♦ Learn to communicate beyond your scientific peers
> ♦ Call upon funders, governments and institutions to develop a research culture which encourages scientists to do all of these things

UN and multilateral organizations

This statement is the result of the discussions in the *UN and multilateral organizations* track.

*The infodemic is not just about communication or the digital world. It is fundamentally about human behaviour.*

♦ Infodemics are targeted: they exploit the susceptible, and on people connected to certain networks. The human factor is built into the architecture of information systems.
♦ Misinformation spreads faster than the virus.
♦ Disinformation, hate speech and conspiracy theories all have points in common, but they are different. From the international human rights perspective, they demand different responses.
♦ Society needs algorithmic transparency to understand how information is filtered and distributed online. Online platforms must improve their transparency reporting on mis- and disinformation. More platforms should report, in a way that is consistent and comparable from company to company.
♦ Good quality health information must be available in every language.
♦ Data transparency, open data and data sharing are essential, but alone they are not enough. Making data available does not automatically increase transparency or reproducibility, unless the people receiving it are trained to use it.

Introduction

While each UN agency has its own technical focus and its own unique battles with misinformation, they share common interests in accessing the best available data and neutralizing the impacts of misinformation so that each agency can best fulfil its mandate. Infodemics have an impact on the work of most UN and multilateral organizations, whether it be WHO fighting COVID-19, UNDP supporting the credibility of elections, or UNESCO seeking to uphold press freedom and the safety of journalists under attack from misinformation campaigns. The UN as a whole faces the challenge of working as a coordinated UN family to learn, establish and use shared systems for managing infodemics.

UN organizations try to share information, enrich it with data and convert it into knowledge for the people of the world. The COVID-19 infodemic has helped accelerate this process through increased dialogue between agencies and external organizations, WHO's work on the infodemic, related initiatives by the UNDP, a global consultation on people's perceptions of the infodemic and more, including a joint statement at the UN General Assembly. The World Health Assembly passed Resolution 73.1 in May 2020, calling on Member States to provide reliable, comprehensive information on COVID-19, and on international organizations and other stakeholders to address the proliferation of mis- and disinformation. The UN has also called for public access to information related to COVID-19.

From a rights-based perspective, two dimensions of the right to information are important in the context of COVID-19: the right to impart information and opinions, and the right to seek and receive information, and access data. Both rights underline the crucial importance of media and information literacy. Sharing and receiving information facilitates learning about the infodemic, but also exposes people to potentially
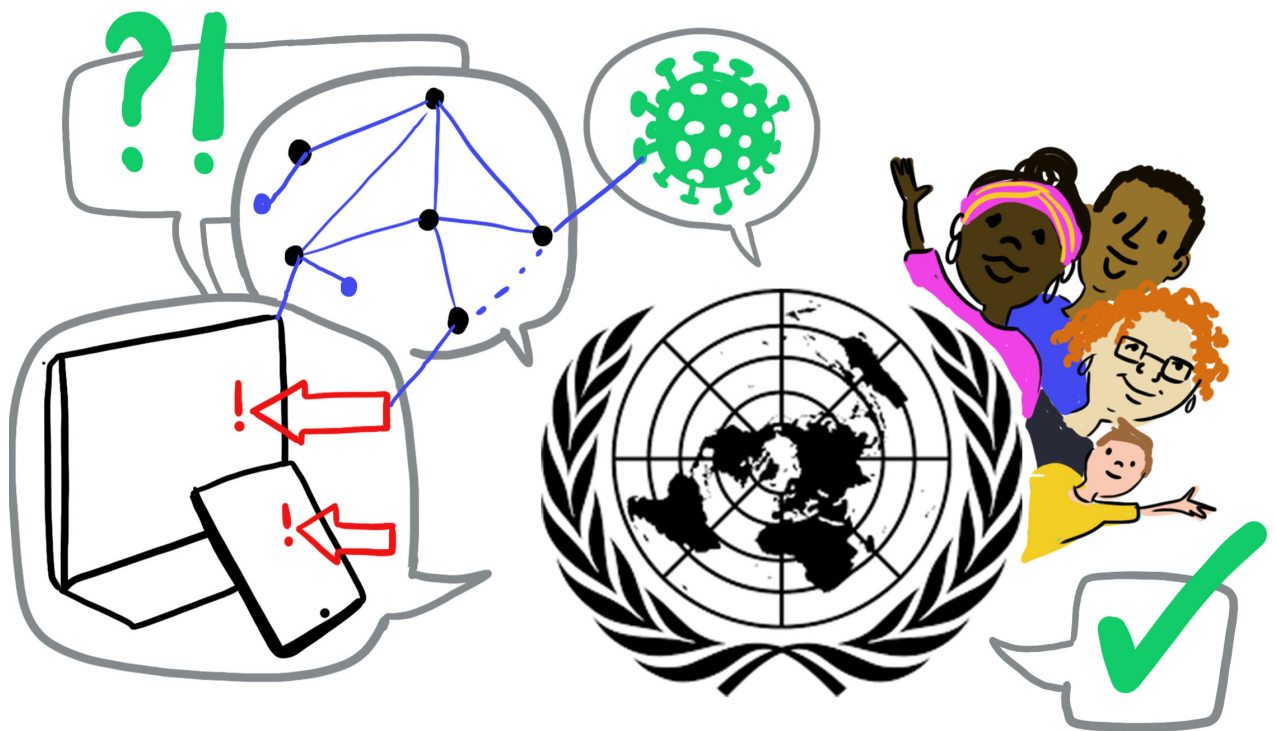
incorrect information and opinions. If they do not understand the potential problems with the information they impart and receive, it can be unsafe. An infodemic highlights the importance of protecting the right not just to information, but to *good* information.

New skills are being developed and new capabilities are coming online in UN agencies, governments and other organizations that allow deeper, more informed discussion of the shape of the information environment. Many tools are available to help address these problems, including data innovation, artificial intelligence, innovation networks and more. One example is an interagency project monitoring how information moves through radio stations. From an equity perspective this is important work: only about 100 languages out of several thousand in the world are established in digital spaces, but many more can be heard on radios around the world. The ethical use of digital tools, including machine learning, allows the examination of these other channels and the development and use of new and better techniques to ensure no voice is left behind.

The goal is to increase information seeking and access on one hand, while at the same time reducing the supply and spread of bad content while ensuring that actions on one side do not weaken actions on the other. In this track, participants worked to identify areas of the infodemic response that need greater data transparency, and ways for Internet companies and social media platforms to improve transparency around the data they collect, hold and process. They sought concrete actions that can be taken by the UN family to counter mis- and disinformation and promote access to accurate information.

Challenges

Custodians and curators: A new understanding has emerged of the importance of tech companies and social media platforms that enable both the infodemic and the response to it. Internet companies can be likened to a supermarket. The range of goods on offer is tempting, but serious investigation is required if people are to understand where the goods come from, what the quality labels mean, and how and why things get put in the best locations, encouraging people to pick them up. Building new foundations for effective data-driven policy requires quantification, monitoring and evaluation of information infrastructure. Currently, the transparency, science and tools needed to understand the spread of the messages and how information

platforms carry them do not exist. Social media favours emotive content, but the effects of a lack of algorithmic openness from the major stakeholders are experienced by everyone. Better understanding of information flows, provided by the companies and platforms that host them, is urgently needed. There is a need for serious dialogue with Internet companies, the core vectors of the infodemic, to ensure they are not fuelling the problem but instead helping to solve it – with some urgency.

Structural issues: The UN faces unique structural problems in combating the infodemic. Sometimes, the purveyors of mis- and disinformation can be political figures from the Member States that make up the UN's organizations and define and fund their mandates. Civilians can call out these problems, but UN and government employees often cannot.

Conduct and norms: The key challenge is to ensure that the world's underlying information infrastructures are trustworthy and ethical, and that they respect human rights. It is the global role of the UN to define acceptable conduct and norms, so there will be a lot of work required to mobilize constituencies and stakeholders across all societies to uphold the right to good quality health information and play their part in defeating the infodemic alongside the major organizations. The way forward will be founded on quantifying, monitoring and evaluating infodemic interventions and anticipating the challenges of the future. It will be important to strengthen the norm that truth matters. Not that it is simple; but that it matters.

Approaches and action points

- ❖ The world needs to find common principles and approaches to engage with Internet platforms.
- ❖ Metrics and common references and datasets must be defined with which to evaluate the infodemic and the performance of our information tools, enabling a clearer view of the big picture.
- ❖ Everyone needs to anticipate the future of mis- and disinformation. It is changing all the time and adaptation is necessary. This will only happen with the help of science – all science.

Technology and platforms

This statement is the result of the discussions in the *Technology and platforms* track.

> ***Building trust is a process, not an end state. It cannot be built overnight.***
>
> ♦ The right information at the right time can save lives. Successful infodemic management helps ensure that people have the information they need at their fingertips to protect themselves, their families and communities from harm.
> ♦ Good information is slow to take precedence. This can be for many reasons – for example, there are few fact checkers who can operate in niche technical health spaces. When it comes to correct health information, WHO must be a key player.
> ♦ Health authorities are normally slow and conservative in how they present health information, and are regularly out-competed by more emotionally engaging and visual misinformation.
> ♦ Work is needed to remove all technical barriers to good information. WHO and tech companies must behave like partners, not strangers or service providers.
> ♦ Organizations and fact checkers must ensure that communities receive locally relevant information, sensitive to context and presented in local languages.

Introduction

The infodemic is as high as it is on the digital health agenda because people are more connected than they have ever been – yet because of the pandemic, in many places they are also more physically and socially distanced than ever before, relying disproportionately on phones and digital devices to connect to the world. The infodemic is propagated through the online information ecosystem, which spreads good and bad information faster than has ever been possible in human history. Infodemics travel fast and widely, and countering them means quantifying and monitoring them, gathering and measuring evidence to build the foundations of data-driven policy. Technology platforms are therefore hugely important stakeholders in the responses to both the pandemic and the infodemic. On one hand, the COVID-19 pandemic has shown it can be strengthened and prolonged when enough people act based on misinformation or lack of trust. On the other, managing the infodemic calls for health behaviour change on a massive scale, something now inconceivable without the effective use of digital tools and channels.

This track looked at how to use the latest data-driven approaches to promote high-quality information and reduce the spread and impact of online misinformation. It also considered what products and partnerships should be scaled up and rolled out to ensure that the digital world combats misinformation and contributes to positive health impacts and outcomes. Participants reviewed how infodemic and health misinformation have been experienced and countered through technology, discussing the most significant changes in infodemic response since start of the pandemic, and what to do in the future. Ultimately, digital health companies, stakeholders and professionals are in a uniquely strong position to help build and maintain trust in the right information, and counter misinformation.
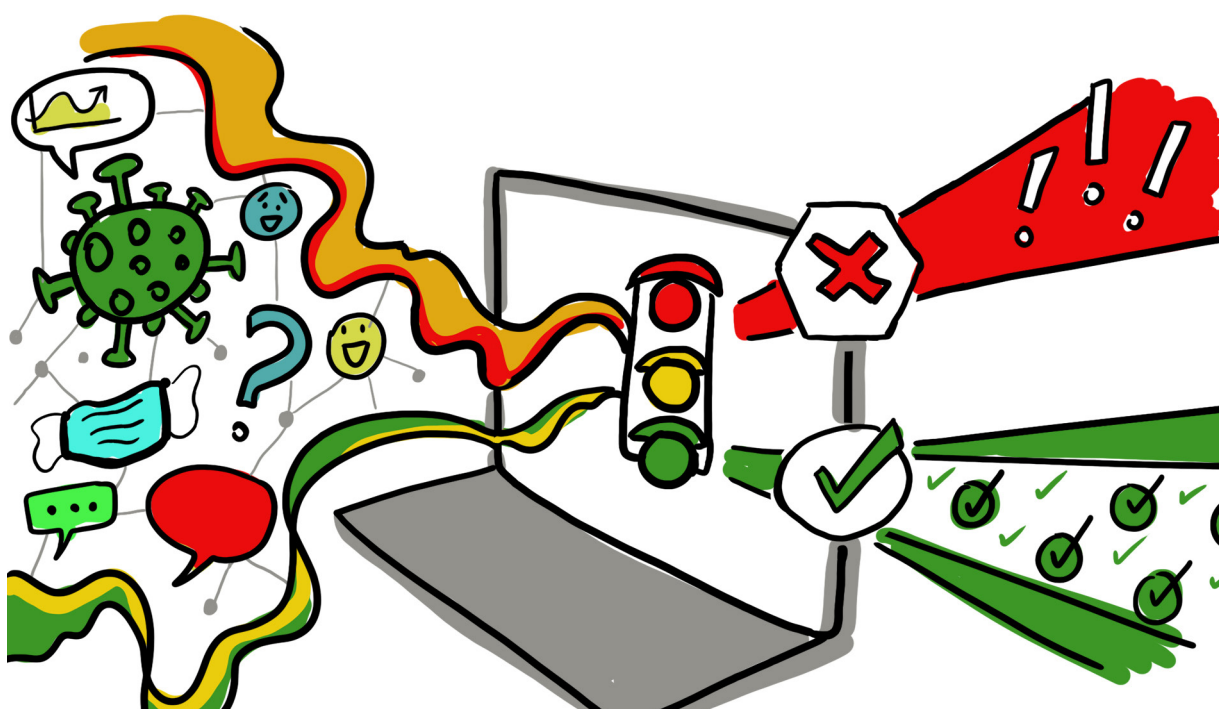
Challenges

Data transparency: The extent of this infodemic is not yet known: it is not clear what individuals see when they use their phones, on their social platforms, or in closed messaging apps. There is an urgent need for access to data on the flow of information through these platforms in a manner that protects individual privacy, because without this insight it is impossible to build evidence-based policy. Better interventions require improved measurement, using enhanced tools and metrics, and based on strong ethical frameworks. The lack of transparency from Internet, information and social media companies currently makes this impossible.

More and better partnerships: Technology companies bear responsibility for providing people with the highest quality of information possible, presented in a manner sensitive to local nuance. To do this, and to achieve sufficient understanding of users and their needs in order to be able to do it, new and better partnerships and collaborations with other stakeholders are crucial. No single organization or sector can deal effectively with the infodemic alone. Each company or platform can take immediate infodemic response measures based on their own products, but the wider ecosystem needs to be supported through partnerships with trusted technical and scientific bodies like WHO, communications experts and civil society organizations that can facilitate outreach in multiple languages. The tech sector needs to improve its understanding of what types of content, delivered at which moments, are most effective in ensuring people receive and absorb the correct information. Then, they must ensure that that understanding is open to other stakeholders and the public.

Literacy and behaviour: People are more likely to believe information or misinformation when they trust the source. They let their guard down around family, friends and colleagues. When people share mis- and disinformation, it often comes from a place of care. The response to information is a matter of human behaviour, and in some ways mirrors how COVID-19 outbreaks can occur in clusters. The infodemic is therefore not only a public communication or digital technology problem, but also a challenge at a behavioural level that strongly underlines the need for media literacy. Information providers can help ensure that people are aware of the sources of the information they receive, whoever forwards it on to them. Information providers are uniquely placed to ensure that when people are exposed to and inspired to share information, it has the appropriate rigour behind it.

Approaches and action points

❖ Better, more immediate real-time insight is required to enable nimble, effective infodemic responses. Better evidence is needed to build resilience to health misinformation in health systems, communities and people.

❖ More high-quality health information is needed online, in places that people can find it quickly and easily, and in formats and channels that compete successfully with the circulating misinformation. Better analytics are needed to understand people's concerns and questions. Better use should be made of metadata, tags and informatics insights to promote appropriate content.

❖ Improved public–private partnerships are needed: digital health stakeholders should work with health authorities to refine their use of technology and analytical insights to disseminate effective health information, counter disinformation, and empower health care workers with knowledge and skills to fight infodemics on the front lines.

❖ Data-driven, evidence-based protocols for clear and effective communication are needed to build citizens' trust. Public–private infodemic response partnerships should be implemented to amplify verified information and counter misinformation.

Country health authorities

This statement is the result of the discussions in the *Country health authorities* track.

> ***Infodemic management could be the most important non-pharmaceutical intervention. Without it, all other interventions are at risk***
>
> ♦ Infodemic management must be part of ongoing risk mitigation and preparedness planning, and an integral part of comprehensive emergency responses, championing health-positive behaviour and health-smart choices.
> ♦ Authorities need to listen to constituents more, prioritizing building relationships and trust among the people they serve.
> ♦ Establishing digital influencers is an excellent way to collect and manage mis- and disinformation.
> ♦ Dealing with misinformation is not about censoring messages that would restrict freedom of expression, but rather about deliberately and strategically sharing helpful information.

Introduction

To ensure that health interventions are effective, infodemic management has to be integrated into the overall emergency response. In this track, country health authorities discussed their experiences and lessons from the pandemic, the most effective ways of listening to constituents, and best practices for building trust among key populations and mainstreaming infodemic management into pandemic preparedness plans. Participants discussed how infodemic management can work with existing epidemiological surveillance and response processes and health system service delivery; how real-time infodemic management insights can support more nimble programmatic responses; and how infodemic management can support trust-building and credibility in health system emergency response, especially among populations that are most at risk.

A range of responses are possible, and there have been many different national approaches to the infodemic, some of which were presented at the meeting. For example, Canada acknowledged the threat of misinformation to epidemic response very early, and responded to that. Finland showed how a lot can be done using existing capacity, and that engagement with the infodemic need not be disproportionately expensive. In New Zealand, there were frequent briefings to government at the highest levels, with relative success in controlling COVID-19. In Niger, a constant cycle of evaluation, action and re-evaluation was put in place to respond to the evolving infodemic. In the Philippines, a campaign set out to saturate the media with helpful messages. Internationally, meanwhile, WHO and others sought to provide more and better evidence-based guidance to all Member States on pandemic control and infodemic management. WHO, for example, has provided frameworks for strategy, mainstreaming and training in infodemic management, along with the action points and research frameworks generated by the first two infodemic conferences.

Challenges

New frontiers: Health ministries around the world are struggling to respond to a range of challenges, some of them new, posed by COVID-19 and the accompanying infodemic. The infodemic arose in a vacuum of knowledge. The pandemic was caused by a new pathogen, and that novelty meant uncertainty around information – transmissibility, immunity, treatment, vulnerability and more were all initially unknown
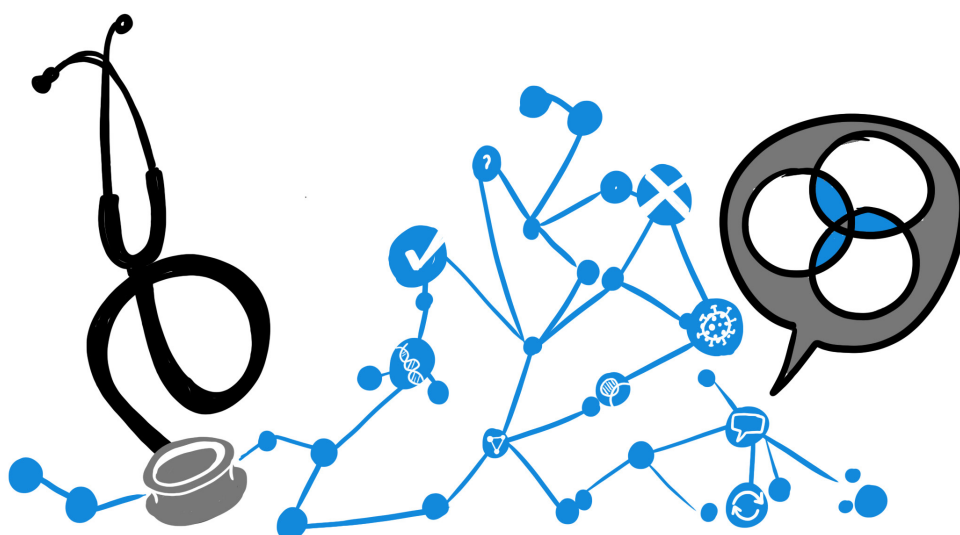
quantities. Given the eventual scope of the pandemic, the resulting infodemic, at the scale it has achieved, therefore became a novel event itself.

The knowledge vacuum slowed or paralysed national and international responses to both the pandemic and the infodemic. Countries sought advice from international agencies facing the same uncertainty and lack of evidence. Add to that the cross-border reach of the infodemic, and the capacity of governments to respond effectively is greatly weakened.

Evolving evidence: New information is continuously emerging. Advice and best practice for individual and national responses are changing with it. Research is being fast-tracked into the public domain in a manner that brings its own challenges, and in this shifting knowledge environment there is dissent even within governments, complicating the decision-making environment for health authorities. In many places, the infodemic has also exposed the need to build new capacities to keep pace with the shifting communications landscape.

Approaches and action points

- ❖ Infodemic management should be acknowledged and prioritized as an important non-pharmaceutical intervention, mainstreamed into existing systems and health systems.
- ❖ Health authorities should base their infodemic management activities and responses on empathic, ongoing efforts to listen to and maintain open dialogue with their constituents, contextualizing health initiatives accordingly and working continuously to build relationships and trust, so that when they need to call for changes in behaviour, people will listen and respond positively.
- ❖ There will always be great value in sharing experiences: many countries have interventions in place already, and while most of these solutions are to some extent contextual, many can be adapted and used in other settings.
- ❖ Infodemic management in response to COVID-19 should have the long term in mind, working to help prevent and build resilience to future emergencies. There will always be the next pandemic to come.
- ❖ In keeping with the fast-moving, ever-changing infodemic environment, country health authorities are best served by continuously evaluating and re-evaluating their infodemic management infrastructure, processes and outputs, with comprehensive, rapid evaluations that prioritize continuous learning and refinement.

Civil society

This statement is the result of the discussions in the *Civil society* track

> **"Civil society" is not homogeneous, but one common understanding unites everyone in the time of COVID-19. Stopping the infodemic means helping communities take action.**
>
> ♦ The golden thread that weaves through all possible solutions places communities at the heart of decision-making. No one part of civil society can act alone; unless everyone listens, speaks and works together as the "whole of society", it will be impossible to mitigate the harmful effects of this infodemic – or those to come.
> ♦ Creating a climate of trust with local communities and citizens is the virtuous path in the fight against the infodemic.

Introduction

"Civil society" is not homogeneous. It does not represent a single view or set of views. But civil society representatives and advocates do share a purpose in the context of COVID-19: advocating for community-led approaches to fighting the infodemic.

A range of civil society representatives came together in this track to discuss and commit to actions necessary to help individuals and communities around the world mitigate the dangerous effects of infodemics, now and in the future.

Though civil society is diverse in many ways – geographically, linguistically, culturally, professionally, socioeconomically, politically – its members share similar challenges when it comes to infodemic management within their respective communities.

Challenges

A lack of localization and nuance: Good quality information is not available in the necessary variety of local languages and digital and non-digital formats. This deficit makes it difficult for good information to reach audiences that need it, and creates opportunities for misinformation and disinformation to thrive. Civil society actors often struggle to tailor whatever information is available to the diverse communities they serve. From refugee camps in Greece to rural villages in Malaysia, communities are in need of reliable, contextualized information.

Just making information available is not enough to address the barriers that communities experience when they try to access, understand and co-create knowledge and content. This is especially true in the marginalized, vulnerable and excluded communities that most need support. Low levels of health, digital, media and information literacy make audiences harder to reach. Inaccessible language prevents broader audiences from understanding the information they need. Furthermore, the considerable influence of Europe and the USA on global health systems excludes people.

These challenges affect everyone. People around the globe are eager to halt the spread of COVID-19, but many are uncertain, concerned, afraid and mistrustful. They want to end the pandemic, but may struggle to find information that is relevant to their lives and situations, and which they can act on. They want to address COVID-19, but have concerns, questions and doubts about preventive measures and potential treatments, including vaccines.
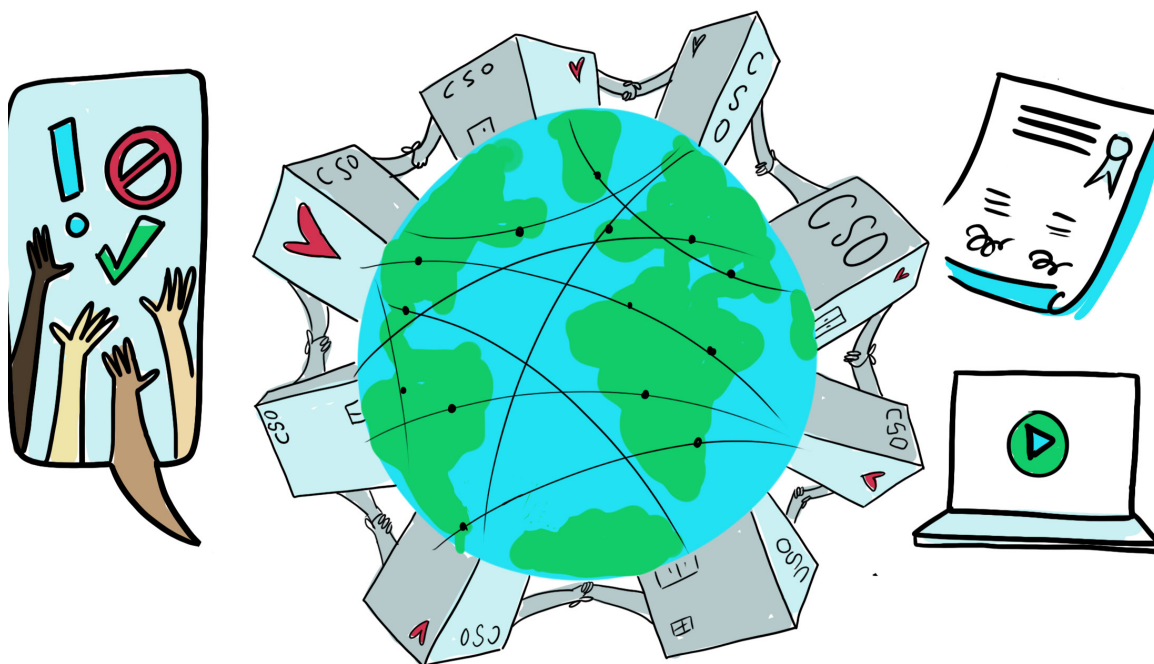
Distrust in authority: Mistrust in government and global health agencies is increasing. Trust is earned through meaningful engagement, action and accountability, not top-down, one-way communication. Individuals and communities across the globe are more and more sceptical of health messages from governments, global public health authorities, and health care professionals – institutions they should be able to trust.

Community involvement: Difficult challenges require innovative solutions, but most importantly they require the will and desire to change. This means a global change from top-down strategies to bottom-up and systems-level approaches that let communities lead their own problem-solving and decision-making.

Until community engagement, support and collaboration are mainstreamed into response efforts, the infodemic will continue.

Approaches and action points

- ❖ An effective infodemic response needs meaningful, engaging, trusting relationships with excluded and marginalized communities – including communities of youth, women, forcibly displaced people, people with disabilities, gender and sexually diverse people, indigenous people – formed on the basis of their intersectional identities. By investing, supporting and leveraging community-based structures, including local media, communities' agency can be advanced through the co-creation, co-development and shared ownership of infodemic solutions.

- ❖ Infodemics thrive in the absence of trust, accountability, dialogue and high-quality, equitable health care. Governments and other authoritative bodies must be held accountable to the communities they serve. They must prioritize action over words, fostering dialogue and building trust, centring communities in decision-making processes and co-creating public health solutions with them in order to respond to their needs, concerns, and ideas.

- ❖ Comprehensive literacy entails critical thinking and analysis, including the ability to discern fact from fiction. Advancing literacy means understanding the key barriers to accessing information and services, including health care. Once these are understood, investment is needed to strengthen literacy and information infrastructure.

- ❖ Information literacy must be developed with and informed by the input, beliefs, attitudes, experiences, perceptions, social norms and capacities of individuals and communities. Information and communication systems should be developed in partnership with communities.

Media and journalism

This statement is the result of the discussions in the *Media and journalism* track.

> *In a pandemic, media leaders and responders can't sing solo, they have to be a choir. There is a need for consistent, clear information that resonates with affected populations.*
>
> ♦ COVID-19 has presented many new challenges for emergency response, but the basics have once again proved themselves anchors of national success: trust, transparency, managing uncertainty, listening and showing empathy.
> ♦ The amount of scientific evidence that is publicly available is overwhelming and sometimes paralyzing. Media stakeholders must work with civil society, scientific and other partners to evaluate the best quality evidence for their audiences. It is important for journalists to produce content that is fact checked and shareable.

Introduction

Participants in this track looked at how COVID-19 and other health misinformation is experienced and countered by and through mass media and fact-checking organizations locally and globally. They discussed challenges and lessons since the beginning of the pandemic and examined how the infodemic is changing the future landscape of journalism and the media.

Challenges

New and complicated territory: Media outlets and journalists are charting new territory in reporting during the COVID-19 infodemic. The demand for answers in an uncertain information environment has been relentless, and media organizations and stakeholders around the world have faced a huge range of new challenges. Making sense of a phenomenon that is not only overwhelming in scale but also novel, complex and quickly evolving, while being able to manage the uncertainty in science and the lack of access to trusted information, has been immensely – sometimes impossibly – challenging. Addressing this is a task for the whole of society; it will take many different actors to flag the best, most trustworthy sources of information and make them available to the media, allowing people to manage the path towards truth and trust together.

Listening to audiences: In the chaos, the importance of listening to and engaging with audiences has never been greater. A lot of the infodemic is based on fear and uncertainty, and it is critically important to understand that and to communicate with compassion for audiences. With such an overwhelming amount of good and bad information so easily available, ingrained habits need to change; media communication can no longer be seen as a one-way process.

Partnership and sharing: The world needs a more open culture of sharing information, based on better collaboration between the media and other parties, better communication – including between the media and scientists and other custodians of essential information – and a better ability to listen to and learn from audiences. Working alone makes infodemic management harder. Media organizations, reporters and other stakeholders must learn about relevant health issues, pandemic response, infodemic management, different communication approaches, and preparedness for future infodemics. To ensure consistent and clear information, local and global collaboration within the media sector is of ever-increasing importance.
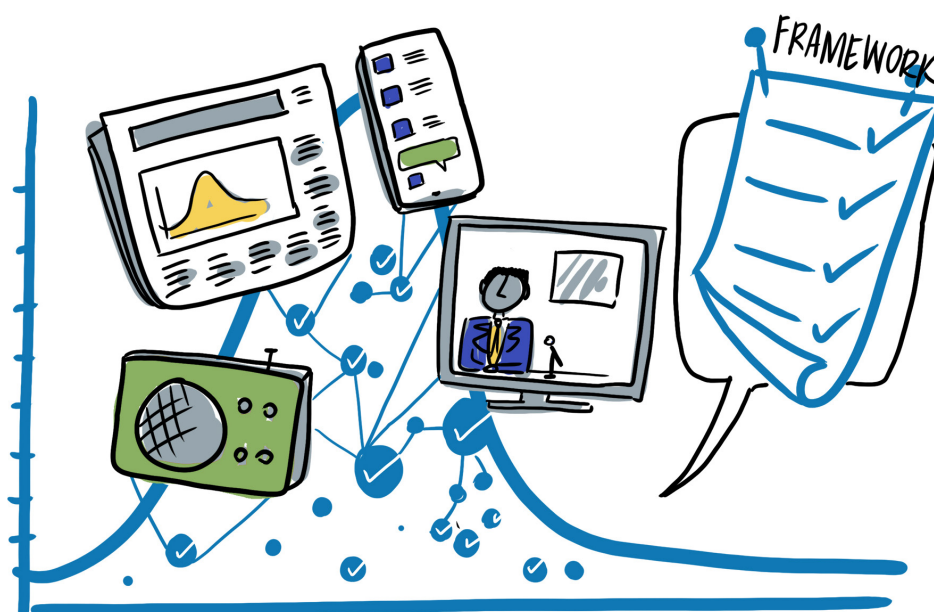
Two-way partnerships with other sectors are also crucial. There is a pressing need for networks of experts and contacts across sectors and communities, including (but not limited to) health, science, pandemic response, vulnerable communities, technology and infodemic management.

If the media is to obtain and communicate a more nuanced understanding of health issues, its members and organizations need training and greater access to expertise, with two-way communication beyond just press briefings. It needs greater access to communicators from the research community to help improve its ability to understand and convey relevant science, and increased access to local expertise from national health authorities. It needs to engage with NGOs, civil society groups and communities so that it is better equipped to meet local communication needs. It needs support from the digital and technology sector to build networks with experts, UN agencies, scientists and researchers, providing media around the world with internationally accessible resources for verified health information. UN agencies and multilaterals, for their part, can increase access to technical expertise, updates and resources, and support media training on communicating health events.

Approaches and action points

❖ Media producers must engage with audiences before producing content, placing a high priority on meeting communities' own needs for information, and setting a high bar for evidence quality when reporting health research findings.

❖ Media stakeholders cannot think of themselves as competitors in infodemic management; they should act as partners and sounding boards for one other, and invest in helping journalists who may not be specialized science reporters improve the quality and trustworthiness of their work.

❖ There is a need to share relevant infodemic resources across different members and sectors of the media, regardless of thematic expertise.

❖ The media should stick to verifiable, reliable sources and take care not to add to the politicization of this pandemic. Journalists and editors should seek out the most prevalent trends in mis- and disinformation and address them.

❖ The media should prepare for the future, anticipating information trends and ensuring the capacity is in place to address them – for example, by making sure that reporters understand issues around vaccine hesitancy and vaccine safety.

Call to action

Throughout this meeting, people came together from across society – including youth activists, community leaders, scientists, journalists, data scientists and technicians, policy-makers, tech companies, NGOs, health authorities and UN staff – and declared a shared commitment to managing and mitigating infodemics in support of equitable health and well-being. This resulted in an important call to action, designed to add momentum to a global movement to manage infodemics, promote access to good quality health information and mitigate harm from health misinformation, online and offline.

This call to action is an invitation to every organization and every person to add their name in a show of solidarity and commitment to the cause.

Please add your name to the call at https://www.who.int/news/item/11-12-2020-call-for-action-managing-the-infodemic

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Since the beginning of the outbreak over a year ago, the COVID-19 pandemic has gravely affected our societies and economies. Likewise, it has deeply disrupted the lives of billions of people across the globe, including the way we consume, produce, and react to information. Thanks to new technologies, we have been able to widely disseminate knowledge and evidence on this new disease. However, social media platforms have also been the carriers of falsehoods and distortions.

Underlining that the world is facing a rapid amplification and circulation of accurate but also false information, the UN Secretary-General and the Director-General of the World Health Organization both declared that we are currently fighting an infodemic in the same way as we are fighting a pandemic. An infodemic is defined as a tsunami of information—some accurate, some not—that spreads alongside an epidemic. If it is not managed accordingly, an infodemic can have direct negative impacts on the health of populations and the public health response by undermining the trust in science and interventions. We are also seeing that infodemics hinder the cohesiveness of societies by increasing existing social inequities, stigma, gender disparity and generational rift.

Although infodemics are not a new phenomenon, the volume and rapid scale-up of facts, but also misinformation and disinformation, surrounding the COVID-19 outbreak are unprecedented. Owing to the opportunities and challenges brought by new technologies and social media platforms, the infodemic

that accompanies the first pandemic of the digital age is more visible and challenging than ever before. Practising information hygiene, just as we are practising hand and cough hygiene, is thus becoming vital to prevent the spread of the virus.

This overflow of information knows no boundaries and affects our physical as well as our digital spaces. By acting together to improve infodemic management online and offline and advocating for continued solidarity, we believe that we can help our communities and those most vulnerable adopt healthy behaviours. As outlined in the Resolution on COVID-19 adopted by consensus at the 73rd World Health Assembly and the G20 Health Ministers' Declaration at the Riyadh Summit, we need to provide populations with reliable and comprehensive information on COVID-19 and take measures to counter misinformation and disinformation.

The response to this infodemic demands the support, development, and application of efficient solutions that equip individuals and their communities with the knowledge and tools to promote accurate health information (upstream) and mitigate the harm that misinformation and disinformation causes (downstream). Fully aware of the limits of top-down approaches, we call upon the implementation of interventions that engage with, listen to, inform and empower people so that they can make decisions to protect themselves and others.

Deeply concerned with the undermining consequences of the current infodemic to the COVID-19 response and acknowledging the great potential for improved risk communication through new tools, we hereby call on key stakeholders and the global community to commit to undertaking the following actions:

- ❖ *Recognize that an infodemic is a tsunami of information—some accurate, some not—that spreads alongside an epidemic and note that it cannot be eliminated but it can be managed*
- ❖ *Acknowledge that infodemic management can reduce the direct and indirect negative impacts on the health of populations, as well as growing mistrust towards governments, science and health personnel which has fuelled the polarization of societies*
- ❖ *Emphasize that everyone has a role to play in addressing the infodemic*
- ❖ *Support a whole-of-society approach and engage with communities in the production, verification and dissemination of information that leads to healthy behaviours during epidemics and pandemics*
- ❖ *Commit to finding solutions and tools, consistent with freedom of expression, to manage the infodemic, embedding the use of digital technologies and data science*
- ❖ *Strive to make science more accessible, transparent and understandable, maintain trusted sources of information and promote evidence-informed policies, thereby fostering people's trust in them*
- ❖ *Learn from the COVID-19 infodemic management practices and share experience on value-added partnerships.*

We encourage other organizations and individuals to join the World Health Organization in making these commitments and holding ourselves accountable to them by signing this statement of commitment.

Links and useful websites

3rd virtual global WHO Infodemic Management conference – conference website:
https://www.who.int/teams/risk-communication/infodemic-management/3rd-virtual-global-who-infodemic-management-conference

1st WHO Infodemiology Conference – conference website:
https://www.who.int/teams/risk-communication/infodemic-management/1st-who-infodemiology-conference

WHO ad-hoc online consultation on managing the COVID-19 infodemic:
https://www.who.int/teams/risk-communication/infodemic-management/who-ad-hoc-online-consultation-on-managing-the-covid-19-infodemic

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