Chapter 1
Infodemic Management in the Twenty-First Century

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1.1 Definition of an Infodemic and the Evolving Information Ecosystem

> An infodemic is an overabundance of information, accurate or not, in the digital and physical space, accompanying an acute health event such as an outbreak or epidemic. (World Health Organization n.d.-b)

An infodemic is not limited to mis- and disinformation but includes all types of information within the information ecosystem.[1] A person's information ecosystem refers to the complex, dynamic infrastructure, sources, and relationships through which information flows and reaches an individual. It includes the digital and physical environments, is influenced by interactions with the health system, is related to social dynamics, health behaviours, and information-seeking behaviours, and acknowledges the structural barriers that can affect access to information.

During an outbreak or an emergency, it is natural, and expected, that with an increase in uncertainty and fear, people seek information differently; they will access different sources, talk more to others about the disease and its impact, and

[1] Misinformation is incorrect or misleading information which can be differentiated from disinformation that is shared with a deliberate intent to deceive for political, financial, or ideological gain (Wardle and Derakhshan 2017).

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listen to opinions, thoughts, and community leaders (Seeger et al. 2020). In such circumstances, people also tend to generate and disseminate information more. The change in information-seeking behaviour that is experienced at the individual level is reflected in changes in the overall information ecosystem. New sources of health information emerge and existing sources transform. There is the simultaneous dissemination of accurate information, misinformation, disinformation, and outdated information from multiple channels. In this context, it is difficult for anyone to identify trustworthy sources, process the information, and make autonomous and informed decisions regarding health-seeking behaviours, services, and interventions. Often, there is a concurrent alteration of the perception of risk (Bhuiya et al. 2021; Erchick et al. 2022; Patterson et al. 2022; Priesemann et al. 2021), which can compromise how health information and guidance are accepted and acted upon.

1.1.1 Characteristics of an Infodemic

- *Individuals have challenges accessing or receiving credible, accurate health information*

This is especially true for communities that are hard-to-reach, who do not have reliable internet access, or who face other access barriers including, for example, people with disabilities, where content is unavailable in appropriate languages, or existing policies exclude certain people from healthcare access.

- *Individuals have challenges discerning between low-quality and higher-quality health information*

Educational status is linked to literacy, including digital, health, media, and information literacy. Inequities in literacy impact abilities to navigate the information ecosystem and differentiate between different types of health information. The sheer volume of information also makes distinction among low-quality, inaccurate, and credible information difficult.

- *Individuals do not always know what health guidance applies to them*

As both the outbreak and the emergency response evolve, so will the science and guidance, which requires issuing updated guidance for different populations. If this is not well executed, this can lead to confusion among individuals and communities who may not understand why there has been a change in guidance or know how to act on the new guidance. Additionally, outdated or contradictory health guidance and unbalanced media reporting can further sow confusion and create feelings of mistrust towards authorities and health services.

- *Individual and community information-seeking and health-seeking needs are constantly changing*

Questions, concerns, narratives, information voids, and circulating mis- and disinformation accompanying an outbreak change, because people's worries and priorities change. Health systems need to ensure that updated communications and guidance address these needs promptly and in a focused and tailored way specific to particular audiences or risk further erosion of trust.

- *Individuals try to make the best health decisions they can for themselves and their families, even if only with limited or low-quality information*

Those caught up in emergencies do not always have accurate information and can be influenced by their previous experience in the health system, their trust in government, and the opinions and actions of their family, friends, or community leaders.

The COVID-19 pandemic presents an unrivalled example of an infodemic. During the pandemic, the generation of scientific evidence and information increased and was distributed widely in both pre-print and publication versions, making it difficult to assess the quality of information. Numerous experts and scientists aired their views and opinions, stimulating a polarised discourse around many pertinent subjects, both offline and online. This was accompanied by an increase in media coverage, with highly sensationalised and potentially manipulative content. Credible health information was 'lost in the noise', and in many settings, the questions and concerns of individuals and communities went unaddressed, creating further space for rumours and myths. This infodemic overwhelmed many individuals, as well as the health systems trying to promote public health guidance and health services.

1.2 Potential Harms Caused by Infodemics

Infodemics are not a new phenomenon and have been witnessed during previous outbreaks of diseases, including Zika, Ebola (World Health Organization 2019), polio, and measles (Datta et al. 2018). For example, during the Yellow Fever epidemic in Angola in 2016, there was a rumour that following vaccination, people could not drink alcohol or might suffer from infertility. This had a negative impact on vaccine coverage, especially in young men (UNICEF n.d.).

An infodemic can cause significant harm to the health of individuals and communities, social cohesion, and the response to the epidemic. However, these dangers are avoidable if certain elements of an infodemic are addressed. The list below details these elements in descending order of magnitude in terms of volume but in increasing magnitude for potential for harm (see also Fig. 1.1):

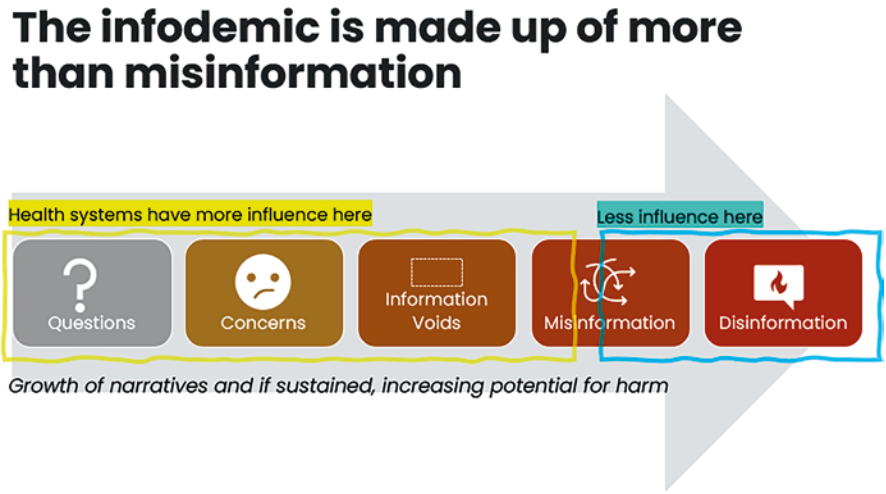

Fig. 1.1 Elements of an infodemic – narratives grow from questions into concerns, information voids, and, if sustained, into mis- and dis-information. The arrow from left to right indicates a growing potential for harm to health and well-being. (Source: World Health Organization (n.d.-b)

- *Questions*

When people do not understand, they ask questions of their friends, family, acquaintances, organisations, and networks they trust. Questions that are not identified, understood, and addressed can evolve into concerns.

- *Concerns*

Questions without satisfactory answers, or with worrying answers (e.g. answers that do not provide solutions or protective actions), can become concerns. Concerns can also reflect frustration or anxiety about a health system's response and serve as a warning signal that population needs are not being adequately met. Concerns, suspicions, and misperceptions are often shared among different groups, which can then become an easy target for sensationalist media coverage and purveyors of mis- and disinformation.

- *Information voids*

These occur when people actively search for information and cannot find an answer from a credible source. Information voids can be identified by monitoring what type of health information is being searched for and rapidly developing content to meet those information needs. Misinformation often appears when information voids are not filled.

- *Misinformation*

Misinformation can be packaged in emotionally compelling ways to speak to the values of specific individuals and communities in formats that are easy to share. Most people who share misinformation are not aware that it is misinformation. Misinformation can be addressed by understanding why a particular piece of

misinformation, or narrative containing misinformation, has been shared widely, to whom and by whom, and by listening to affected individuals and communities, engaging with them, and improving science translation efforts to clarify and address misperceptions.

- *Disinformation*

This is false information created or disseminated with an intention to harm. Disinformation is often motivated by economic or political profit, and is re-shared by people who either believe it or identify with a particular cause. This can include conspiracy theories, calls for violence, or deliberate attempts to erode trust in health services or government. Addressing disinformation requires a more comprehensive approach that may go outside of the health system, legal or consumer protection intervention.

- *Narratives*

As more people become concerned about a specific topic, the discussion that is generated can become a narrative. Narratives are trending topics discussed offline, online, and in the media, and can be influenced by social, political, and economic factors. Narratives shift over time, often in response to national emergency response efforts. Narratives can be positive or negative and can contain accurate and/or inaccurate information. Understanding the values that underpin narratives can be helpful to inform communication efforts.

The different elements of information that make up the infodemic can impact a person's knowledge, awareness, beliefs, intent, and even behaviour at both an individual and a population level. For example a certain narrative can impact adherence to public health and social measures (PHSMs) that have been put in place during an epidemic to slow or stop transmission. This occurred during the early stages of the COVID-19 pandemic when a common narrative emerged (Basch et al. 2021), stating that COVID-19 only affects older people, which led to a lower risk perception among young people and a lack of adherence to PHSMs.

An infodemic can also result in direct harm to health, such as use of unapproved treatments that have been advertised as cures. These are predominantly linked to misinformation. For example, early in the COVID-19, pandemic methanol was touted as a treatment, resulting in a large number of deaths in Iran (Hassanian-Moghaddam et al. 2020). Furthermore, fear and uncertainty associated with an epidemic can lead to behaviours that are not protective of health either for the individual or for the community. This type of behaviour was displayed during the COVID-19 pandemic when individuals who were at low risk from severe disease purchased and hoarded face masks, thus depriving highly exposed caregivers from essential protective equipment. Infodemic management insights can shed light on the drivers, barriers, and enablers of such behaviours, while effective communication can minimise the impact of fear and uncertainty by addressing people's questions, concerns, and information voids.

Infodemics can impact trust in the health system. If the needs of communities are not understood, and the response is not tailored to specific contexts and concerns, there will be a misalignment between the health system and the community. Health systems and public health authorities may deliver inappropriate solutions that are

not accepted by communities. Authorities may then assume that a low uptake of PHSM is due to other factors such as misinformation, and then seek to address that misinformation rather than the acceptability and feasibility of recommendations. This will increase a community's perception that the health system or authority is not responsive. For this reason, meaningful communication and engagement of communities in the design and implementation of an epidemic response is a critical part of infodemic management.

Stigma and discrimination are directly linked to infodemics during epidemics. In most epidemics, there will be certain at-risk groups, such as international travellers during COVID-19 or men who have sex with men during mpox multicountry outbreak. It can be complicated to deliver sensitive, nuanced communication about the risk without increasing stigma or vilifying certain populations. Many healthcare workers also experienced stigma, exclusion, and even physical violence during the COVID-19 pandemic (Bagcchi 2020; Dye et al. 2020; Nashwan et al. 2022). This was in part due to poor messaging and communication, as well as the increased risk of infection for healthcare workers from SARS-CoV-2 through increased exposure to the virus being interpreted as healthcare workers being a source of the virus. Similarly, many health workers delivering or promoting COVID-19 vaccination experienced violence, which was often linked to conspiracy theories about government motives behind advocacy for specific vaccines or prioritisation of specific populations.

1.3 The Importance of Trust in Epidemic and Pandemic Response

The information ecosystem during epidemics is complex, involving large volumes of rapidly generated and disseminated information, a multitude of contradictory voices, sensationalised media content, layers of contextual factors influencing understanding and culture, emotional factors such as anxiety or anti-government sentiment, and all meeting with differing levels of scientific literacy, health literacy, and digital literacy.

For individuals to adopt, change, and sustain new behaviours during epidemics, they need to be aware of the recommendations; understand the context and rationale behind the recommendations; trust the authority/messenger recommending them; and have the ability to enact the recommendations in their living/social/work/faith setting. Trust is an invaluable social capital and is fragile at the best of times. During epidemics, trust in institutions, science, and decision-makers is at even greater risk.

1.3.1 Trust and Science During Epidemics

During epidemics, the volume and speed with which scientific evidence is generated, analysed, published, and shared increases exponentially. During the first couple of months of the COVID-19 pandemic, more than 20,000 articles related to

COVID-19 were published (Teixeira da Silva et al. 2020). Many publications were of suboptimal quality and lacked scientific rigour, leading to misinterpretation of results, confusion, and diminishing trust in science. For example an article published in a reputable journal on the use of hydroxychloroquine as a treatment for COVID-19 (Mehra et al. 2020) was retracted and rumours ensued, stating that scientific information was being manipulated by health authorities. Mistrust in science, and secondarily in the authorities that promote the science, is difficult to shift once established. Communities may refuse PHSM or even come into conflict with other communities or groups. In this way, we see how the infodemic can aggravate social discomfort. This is supported by an increased interest from the media and 'citizen scientists' with little formal scientific training interpreting low-quality studies to support their views.

When a new pathogen emerges, little is known. It is only as the epidemic develops that knowledge of the disease and strategies to manage it increase. However, this time lag between emergence of a pathogen and knowledge generation and guidance development can be perceived by communities as incompetence or ignorance. While the rapid and transparent sharing of scientific information on open access platforms can shift this perception in the scientific and medical community, the speed of publication must not happen at the expense of rigour (e.g. peer review and editorial validation). Furthermore, even with high-quality scientific publications, intentional efforts are needed to translate the science into different contexts and cultures in order to make the science relevant and actionable. This can be supported by interventions to build scientific literacy, as this will enable an understanding of the iterative process of evidence generation, interpretation, and evaluation, which, in turn, helps to build trust in science and resilience to misinformation (World Health Organization n.d.-a).

1.3.2 Trust and Communities

Pandemics and epidemics are evolving situations characterised by high levels of uncertainty and variable levels of societal and individual-level disruption due to the impact of the disease itself, as well as the interventions (PHSM) put in place to stop transmission. Trust is an essential part of the epidemic response. However, trust is complex; it can take a long time to build but can be destroyed very quickly. It is context specific and dynamic. Trust in institutions and leadership can wax and wane as an epidemic or pandemic evolves and information changes. Traditional risk communication aims to encourage change in people's behaviours to protect their own individual health and that of their community. Less considered is the impact of these changes on social cohesion, on broader mental health and well-being, and on people's trust in authorities.

Within each information ecosystem, there are trusted voices (individuals or institutions) that influence communities and individuals. Where there is mistrust in governments, there will be challenges to an epidemic response. This is especially true if the words or commitments made by health authorities are not followed by

appropriate action or if public health recommendations are unimplementable in a person's setting or with the resources available. For example, during the COVID-19 pandemic, certain politicians were exposed as hosting parties and dining in restaurants despite the social distancing and entertainment closure measures. When decision-makers do not lead by example, trust in authority figures decreases.

Trust needs to be understood and strengthened between crises precisely because it is at risk during crises. There are sources of trust and protective factors of trust; there are also those that protect trust and those that destroy it. For example it is more common to trust someone known or someone with legitimate knowledge and authority such as a doctor or caregiver. Building trust is an important component of epidemic and pandemic preparedness efforts, particularly for leaders and decision-makers. Trust is an underpinning value of all infodemic management approaches and is considered a valuable social capital that must be nurtured.

1.4 Strategies to Manage Infodemics During Health Crises

Infodemic management requires a comprehensive understanding of infodemics, the overall information ecosystem, and the interdependency with epidemics (Rubinelli et al. 2022; World Health Organization 2020b). Infodemic management includes the following 4 essential components:

- *Listening to concerns*

Listening increases understanding of the concerns of communities, the contexts within which they live, and their experience and knowledge related to the outbreak or epidemic. Listening is the first step towards formulating interventions, guidance, and communication in a way that is more relevant, implementable, and acceptable to communities. For this reason, infodemic management prioritises listening. In the current information ecosystem, much listening can occur on social media platforms, and incorporating sentiment analysis to social digital listening can generate useful insights. Other offline or interpersonal platforms for listening can be built into physical spaces such as workplaces, health or community centres, places of worship, or schools. For social listening to be useful and effective, however, it needs to happen in real time and must also be grounded in an analytical framework that makes it possible to operationalise the knowledge that is generated rapidly.

The World Health Organisation (WHO) has invested in the development of taxonomies and methodologies for integrated analysis and infodemic insights generation (World Health Organization and Organisation mondiale de la Santé 2022), as well as online social digital listening tools (WHO-EARS n.d.) that are being refined to enhance listening at a global, regional, or national level. It is possible with these tools to understand the prevalent questions, concerns, information voids, narratives, and circulating mis- and disinformation within certain population groups.

In general, during epidemics, questions can be grouped into four categories: the disease (its symptoms, the sequalae); cause and aetiology of the disease (e.g. the

virus) and explanation of the disease (why me, why us?); treatments; and public health interventions (personal protective equipment, vaccines, masks, etc.). By grouping questions in a limited number of categories, health authorities can prepare communications that are tailored and encompassing at the same time.

- *Communicate risk and translate science*

Risk communication is a core capacity within the monitoring and evaluation framework of the International Health Regulations (World Health Organization 2005). At certain times in history, health authorities have been inclined to hide the facts regarding an outbreak or epidemic. Aside from the negative impact on trust and legitimacy, this approach would be impossible to maintain in the current information ecosystem. Regular, transparent, communication that acknowledges uncertainty is most certainly a more effective method of reassuring communities and keeping them informed. Effective risk communication is always timely, accurate, credible; shows empathy; promotes action; and is delivered with respect. Risk communication must include efforts to translate scientific concepts into messaging that is understandable and relevant to target audiences. Science translation is challenging in epidemics where the science evolves quickly and is generated rapidly. Interventions may need to be adapted based on evolving evidence and there is a risk that without appropriate communication, these changes are misinterpreted. Translating science into operational knowledge is, to an extent, an art that combines not only an excellent understanding of scientific phenomena but also an ability to share knowledge in a format that can be understood and operationalised. WHO has developed strategies to support science translation, such as 'Science in 5', EPI-WIN webinars, and regular press conferences. These events have made it possible to inform different communities and networks of evolving knowledge.

- *Promote resilience to misinformation and disinformation*

In many circumstances, individuals are able to differentiate between correct information and misinformation. During an epidemic, people tend to seek information actively, thereby increasing their exposure to all types of information. In addition, fear and uncertainty impact a person's ability to analyse information objectively. Infodemic management includes dimensions of preparedness such as strengthening health and digital literacy. These capacities are often under-valued as epidemics are considered rare events and the perception of risk decreases sharply once the crisis has passed.

To build resilience to misinformation at an individual level, it is important to strengthen an individual's ability to distinguish between accurate and inaccurate information; recognise media manipulation; and successfully debunk misinformation with friends and family. However, at a community level, resilience to mis- and disinformation requires structural approaches. A resilient community has both access and ability to disseminate credible, accurate information that is tailored and acceptable to the population. A resilient community also has a localised ability to fact-check claims, has access to trusted messengers who have been trained in effective infodemic management principles, and has a feedback loop with the health system to share rumours, questions, concerns and elicit rapid responses.

- *Engage and empower communities*

Active engagement of communities is essential to epidemic response. During an epidemic, there is individual experience and responsibility, as well as community/collective experience and responsibility. In the current information ecosystem, the concept of communities is evolving. In localised epidemics, geographical communities are an important focus. However, in the hyper-connected modern world, each individual belongs to multiple communities, including traditional communities (neighbours, friends, family); virtual communities (social media platforms and networks); and communities defined by similar vocations or interests (faith, sport, workplace).

Community engagement in the twenty-first century must account for this new network structure and WHO has formed different global networks that enable the engagement of different types of communities: for example a Health in the World of Work Network that connects employers, business associations, and labour unions to discuss the preparedness and response to infectious diseases in the workplace. Another example is the WHO Faith Network that includes faith-based organisations and religious leaders that work together to support the engagement of faith partners in local responses to epidemics and pandemics. Youth are another important constituent with whom WHO works closely in infodemic management, for example through the WHO Youth Council and the Collaboration with International Federation of Medical Student Associations.

These WHO networks represent not only a new approach to community engagement but also are platforms for two-way dialogue, knowledge exchange, and science translation. The co-development of technical guidance (World Health Organization 2021b) within these networks to ensure that technically correct recommendations can also be properly adapted to different contexts, settings, and cultures is an important step towards increasing the reach and relevance of WHO's messaging. Without the knowledge, expertise, and experience of these networks feeding into the 'operationalisation' of scientific knowledge and technical guidance, there is a risk that it remains too technical or its implementation is not feasible (Fig. 1.2).

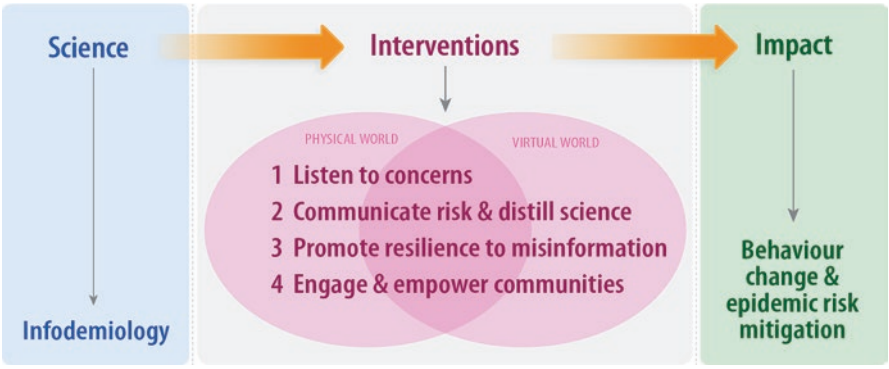

Fig. 1.2 Infodemic management – from science to interventions in order to have impactful behavioural change and epidemic risk mitigation. (Source: WHO n.d.-b)

1.5 Tips to Implement Infodemic Management

Infodemic management is a public health practice which must be embedded within health system structures. This is important for the effective monitoring of information and for generating insights, producing high-quality communications and programming, adapting the design and application of infodemic interventions, and promoting the resilience of communities and networks. Infodemic management must account for each person and their ability to use the tools and strategies available to manage the infodemic within their own information ecosystem. There is also a need for institutions, decision-makers, and those with influence to shoulder their civic and moral responsibility in managing infodemics. There are many tools and resources developed by WHO that can support infodemic management activities for a diversity of stakeholders (Fig. 1.3).

In the modern digital information environment, it is insufficient to focus solely on the dissemination of health information as a strategy to reach people with public health recommendations (World Health Organization 2021d). Successful infodemic management, while reliant on multi-stakeholder engagement, must be health-authority-led and requires a comprehensive strategy that includes the following practical steps:

(i) *Engage health workers in infodemic management*

Health workers are often the first point of contact that an individual will have with the health system. In addition to the vital services they deliver, health workers play a critical role in communication, allaying fears, and understanding individual and community information needs during epidemics. Health workers can be

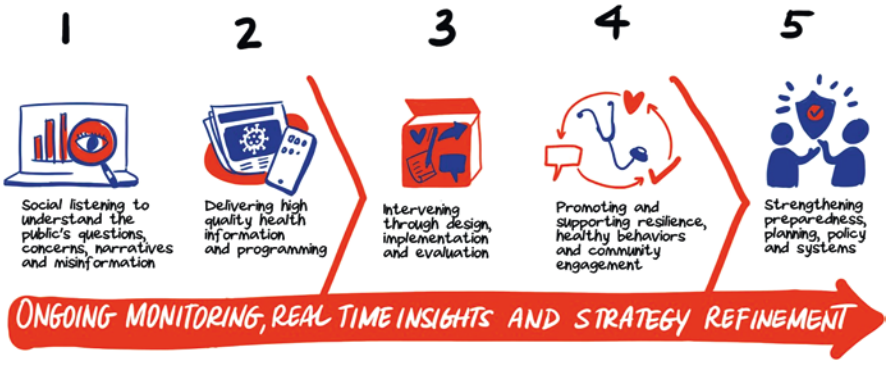

Fig. 1.3 WHO infodemic management process in a health authority. (Source: World Health Organization 2021c)

supported in this role through expanded pre-service, in-service, and continuing education training opportunities that include evidence-based 'listening and responding' techniques (e.g. motivational interviewing) and misinformation management techniques. These techniques may be specific to the carer-patient interaction but could also be expanded to include interactions with the broader community (OpenWHO n.d.). For each health event, health workers will require updated tools and resources for addressing the event-specific misinformation narratives and responding to frequently asked questions (World Health Organization 2022a). As the infodemic management response matures, health workers could also receive training in techniques and approaches for monitoring infodemic-related indicators relevant to the country, context, and epidemic (World Health Organization 2022b).

(ii) *Improve the quality, accessibility, and acceptability of health information*

Infodemic management requires a multisector response. All people, institutions, governments, and networks can contribute towards managing the infodemic. However, national health authorities retain the primary responsibility for ensuring that all people have access to the right information, in the right format, and at the right time.

As a baseline, health authorities must ensure all interventions during epidemics and pandemics are evidence based and accompanied by transparent communication. In addition, communication should be tailored to different audiences, languages, and cultures. An infodemic will impact different communities in different ways. Certain groups such as migrants, minority language communities, and hard-to-reach populations may be more vulnerable during an infodemic due to limited or restricted access to credible, accurate information or to a platform for voicing concerns and questions. This isolation may impact the uptake of (possibly) already limited health care and acceptance of PHSM.

Infodemic management requires that these communities are identified and supported through intentional and respectful efforts to facilitate listening, increase access to credible health information, and build resilience to misinformation. Often peer-to-peer approaches (Chaney et al. 2021) are effective in these situations and, thus, those involved in infodemic management are encouraged to prioritise and sustain partnerships with trusted decision-makers and community leaders, including the following: the identification of communities disproportionally affected by infodemics; the co-development of efforts to increase resilience to misinformation among communities; the establishment of safe platforms (virtual and physical) for dialogue and learning; and the provision of resources to carry out infodemic management interventions.

It is widely acknowledged that health information travels further when people adapt and share it. This form of knowledge generation can be encouraged by disseminating health information in formats designed for reuse and sharing, as well as being meant for digital spread through social networks. Inaccurate, stigmatising, or potentially harmful content can be replaced by accurate, high quality-content that has been adapted and repurposed (World Health Organization 2021a). Strategically, it is important, therefore, for health authorities to build mutually respectful

partnerships with new types of communities both online and offline to foster a healthier information environment, such as professional networks, dating social networks, and interest-based social networks (World Health Organization 2022a).

Media, including journalists, are key partners that can be encouraged to avoid over-sensationalised content, use a range of trusted sources, uphold impartiality, and employ a proactive approach to addressing common rumours, information gaps, questions, and concerns. The education, telecommunications, food and medicine, and consumer protection sectors can also be engaged in infodemic management; for example health literacy and digital literacy built into education curricula, food and medicines safety organisations partnering with programmes that provide access to credible health information, and the private sector called on to link to government public health sites or other credible websites or posts and content related to the emergency or health topic (World Health Organization 2021e).

(iii) *Take actions to build a positive digital information ecosystem*

Digital platforms can be an ally when managing an infodemic, and digital tools such as SMS-based prebunking courses, next-generation conversational chatbots that mimic natural human conversation, and gamified learning through apps are available for refinement and dissemination (World Health Organization 2021d).

Simple actions such as reviewing, updating, and translating national or local public health authority websites and increasing their social media presence will make health information easier to find and more accessible to local populations. Content should also be adapted to mobile devices, which are used by the majority of people worldwide to search for health information (World Health Organization 2021a).

In addition, efforts to remove outdated health guidance and information that could cause confusion and fuel misinformation are simple but effective in 'cleaning' the digital information ecosystem (World Health Organization 2021a). Other opportunities include the establishment of partnerships with fact-checking organisations, social media platforms, and media to promote accurate, credible information, prioritise communications from trusted voices and sources, and invest in mis- and disinformation monitoring. In the digital ecosystem, it is also important to ensure policies and strategies are in place to protect trusted voices and sources from harassment and trolling, all while protecting 'freedom of expression' and avoiding where possible the exclusion of dissident voices.

(iv) *Establish an infodemic workforce for rapid infodemic insights generation and response*

Although many health authorities are already responding to health misinformation, few have designated infodemic management staff or teams. Initial efforts to establish an infodemic workforce can include the upskilling of existing staff, and the provision of resources and capacities to implement basic infodemic management interventions. Subsequent steps will include the development of a human resource plan, based on a competency framework to implement the infodemic management strategy (World Health Organization 2021c). Once the human resources have been identified and trained for flexible deployment within the emergency

response structure, health authorities can develop SOPs for rapid infodemic insights development for high priority public health issues: for example SOPs to mitigate the impact of the infodemic in the context of a specific treatment or health-promoting behaviour (World Health Organization and Organisation mondiale de la Santé 2022).

(v) *Establish and develop infodemiology – a transdisciplinary approach to infodemic management*

Infodemiology is a new scientific discipline that brings together a large variety of scientific disciplines to address the complexity of infodemic management. It includes elements of data science, epidemiology, physics, chemistry, anthropology, behavioural sciences, sociology, psychology, philosophy, political science, and communication. Investment in research is needed to increase the evidence base for infodemic management, including, but not limited to, exposure to information, effectiveness of interventions and policies, impact of health misinformation, and the effectiveness of strategies, tools, and interventions (World Health Organization 2020a, 2021d).

1.6 Conclusion

Infodemic management is still a developing field of public health practice. There is still much to learn about how human populations communicate during acute health events, both online and offline, and how this affects behaviour and resilience both of individuals, communities and health sytems when faced with epidemics and pandemics. A universal lesson from the COVID-19 pandemic is the importance of preparedness. The next pandemic will be accompanied by an infodemic. Pandemic preparedness includes preparedness for infodemic management, and the building of a community of practice and research is the first step towards the development and evaluation of effective evidence-based measures and practices to detect, understand, and respond to infodemics.

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