



NUDGING
KNOWLEDGE

Tackling health misinformation in humanitarian settings using behavioral science

Playbook

Table of contents

Introduction | 3

What does this guide do? | 5

How to use this guide | 6

Framework for understanding how information spreads | 7

Behavioral insights on humans' beliefs and behaviors | 10

Checklist for designing information campaigns | 34

Conclusion | 41

Acknowledgments | 44

References | 45

Introduction

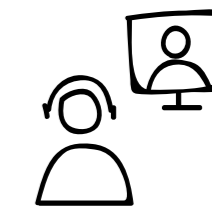
Misinformation refers to **the sharing of inaccurate and misleading information in an intentional way. It has led to a number of claims during COVID-19**, such as, different people have different kinds of immunity, or that natural remedies can offer protection.



The pandemic has been marked by a flood of misinformation, all with one consequence; to discourage people from actively pursuing preventative and health seeking behaviors, thus exposing them to health risks and potentially making it longer. How to judge the quality of information and act only on what is credible is crucial, yet addressing how people do so is a challenge.

Conventional approaches to tackle this tend to first show that a piece of information is inaccurate and then provide a scientific explanation that is contrary to it. The assumption here is that people will consider scientific information objectively, and course correct by taking the recommended action. However, this approach has a significant behavioral science blind spot; it ignores how people think and behave.

Behavioral science is the study of why people behave as they do, how such behavior is based on what they believe and how they form these beliefs. In this case, why they are inclined to believe a specific piece of information over another.



This book is a guide on six curated behavioral insights to help you better understand how people form the beliefs that guide their behavior. Whether or not someone believes a piece of information depends;

- 1 *How they feel when they receive a piece of information (feelings);*
- 2 *Whether they trust the source of information (trust in source);*
- 3 *How often they have heard the information before (mere exposure effect);*
- 4 *The information which comes to mind quickly and easily for them (availability bias);*
- 5 *Whether the information supports their existing beliefs (confirmation bias);*
- 6 *What others around them believe (social norms).*



These insights are likely to apply in how people form beliefs in humanitarian emergencies, especially displacement settings; where people have been forced to leave their home, or the place where they live, because of war or a natural disaster. People in these settings often find themselves in extremely uncertain circumstances. Certain feelings for instance fear and anger might be prevalent and are presumably further amplified by a health emergency such as the COVID-19 pandemic. Such environment are also closed and give people little opportunity to interact with outsiders. Meaning that people are frequently exposed to and likely to repeat rumors, making them top of mind. Additionally, group identities can be strengthened in such situations of duress, where being part of a group can be a survival mechanism.

Behavioral science teaches that these feelings and situations are likely to influence people's general beliefs and reaction to health information.

Furthermore, people are prone to return to their existing beliefs when evaluating new information. New information therefore needs to support what they already know. This chain of events is even more likely if low levels of education are seen to contribute to beliefs that are less complex with information that is coherent in its own logic.

What does this guide do?

“ This guide unpacks behavioral insights that influence how individuals perceive, retain, use and act on information. Its goal is to provide operationally-relevant information - to humanitarian actors - on how to design information campaigns that lead to better health outcomes.

Understanding that humans process information imperfectly and that social, political, and psychological factors can make certain pieces of information more powerful than others is a crucial step towards drafting a realistic, evidence-based Theory of Change for communication campaigns in humanitarian settings.



THE GUIDE:

- Provides a structure for how information spreads
- Breaks down the important elements that need to be considered when delivering a piece of information
- Maps six behavioral insights that influence people's beliefs and behaviors
- Outlines the different ways information (including misinformation) becomes credible knowledge
- Gives recommendations on how these insights can be applied to developing Theories of Change
- Change for impactful communications that can directly and positively influence health-seeking behaviors

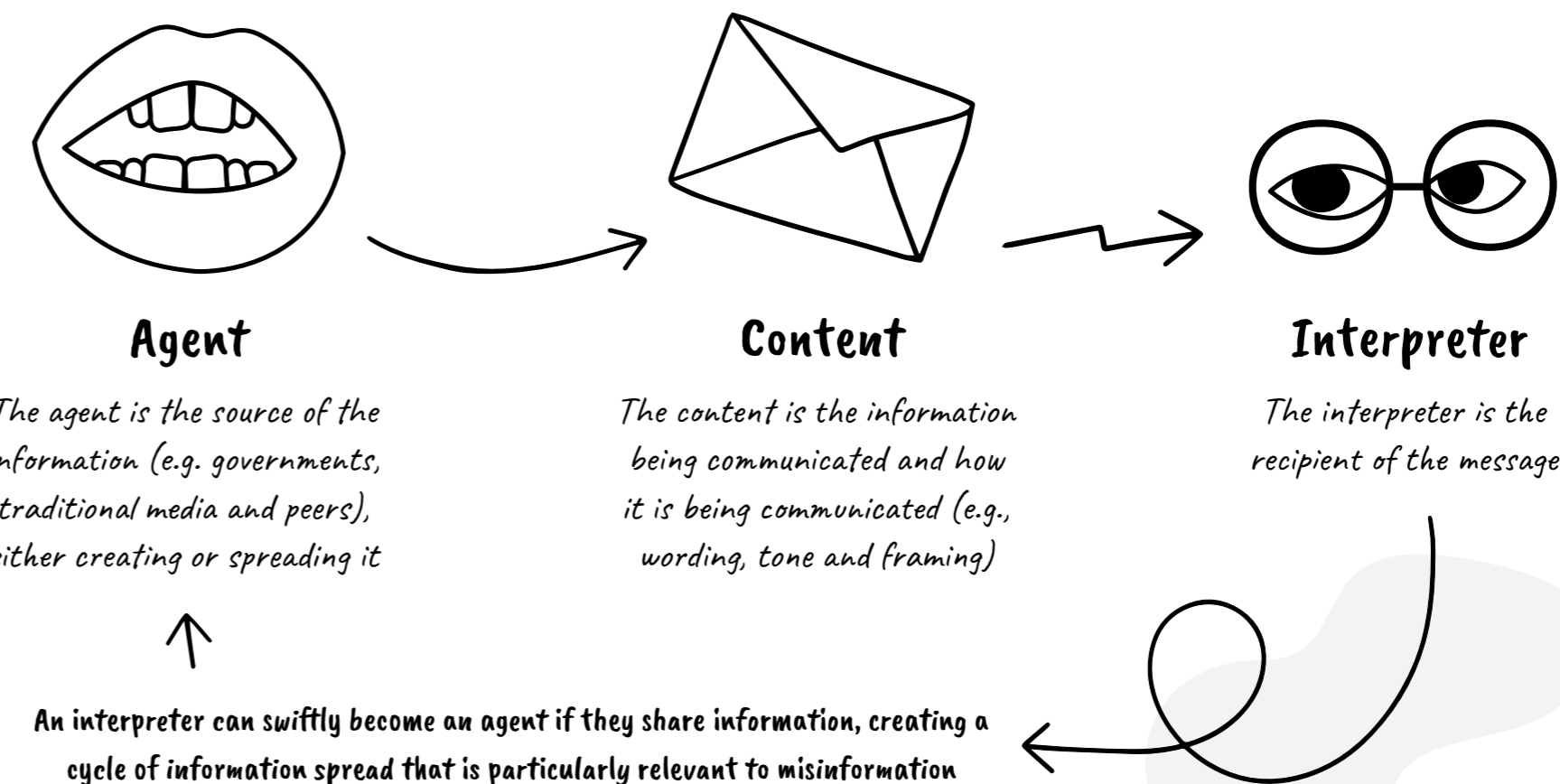
How to use this guide

This guide does not require prior knowledge or experience in behavioral science. It will be relevant for you if you are an actor in a humanitarian setting look to:

- Design a Theory of Change for a program aiming to change people's beliefs or behaviors:**
This guide can be used by several actors. For instance, program managers seeking to increase the uptake of COVID-19 vaccinations by countering scientifically incorrect information can rely on the insights provided here. Or it can also be used by a humanitarian who is developing a Theory of Change for promoting preventive health behaviors. This guide offers practical entry points to take into account when identifying what factors will influence how your information might develop the impact you are hoping to have and ultimately achieve the change you are pursuing.
- Design communication strategies or information campaigns:**
This guide can be used by anyone who is grappling with the question of how to make an information campaign more effective by outlining concrete steps that new or existing communication interventions can take to effectively change people's perceptions, beliefs and behaviors, within humanitarian settings.
- Think about how to contextualize behavioral insights to design better information campaigns:**
It is necessary to ask afresh in each situation how exactly context influences the behavioral insights that determine uptake or dismissal of information. This guide provides a checklist for how to contextualize behavioral insights to specific social, political and cultural situations of humanitarian settings. In program design phase, where feedback is gathered from communities for co-created solutions, this checklist can help with deeper and behaviorally-informed contextualisation.

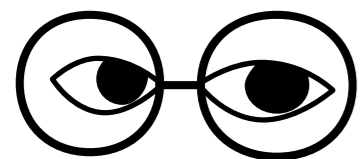
How does information spread?

Information, whether scientifically substantiated or classified as misinformation, has three elements: agent, content and interpreter. In this 'Information Disorder Framework' (Wardle and Derakshan, 2017), each element influences how information is processed and acted on.



Six behavioral insights that influence the impact of information

Behavioral science sheds light on the extent to which the impact of a piece of information depends on how the information is shaped by the individual characteristics and the situation in which the interpreter finds themselves. Thus, in this guide, we have adopted a user-centric lens and will focus on six behavioral insights that influence how an interpreter receives and acts on information.



Interpreter

- 1 Feelings:**
How someone feels when they receive a piece of information, which depends on how it is framed, can affect how they think about the information
- 2 Trust:**
Who someone perceives as the source of a piece of information, and whether they trust them, affects whether they believe the information
- 3 Mere Exposure:**
People are likely to believe information which they have heard repeatedly
- 4 Availability Bias:**
People form beliefs based on the information that comes to mind quickly and easily
- 5 Confirmation Bias:**
People evaluate information in ways that correspond to their existing beliefs
- 6 Social Norms:**
People's beliefs depend on what those around them believe and do





Behavioral insights to help understand the role of the recipient

1 Feelings



What is it ??

“ **How someone feels when they receive a piece of information can affect how they think about the information and whether they change their behavior in response to the information.** *Their feelings after receiving information depend on how they were feeling before receiving the information and what feelings the information triggers in them, that is, before they begin thinking and reflecting about a piece of information. When a person's feelings are based on misinformation, their feelings can cause them to behave in ways that might later turn out to be unhelpful or even harmful.*

For example, people might assess the risks of suffering serious side effects from a COVID-19 vaccine according to how worried they generally feel about side effects. If they feel worried, they think the risks are high; if they do not feel worried, they think the risks are low.

FEELINGS

These feelings can also influence people's judgement of the benefits of vaccination.



If they feel worried, they think the benefits are low; if they do not feel



worried, they think the benefits are high.

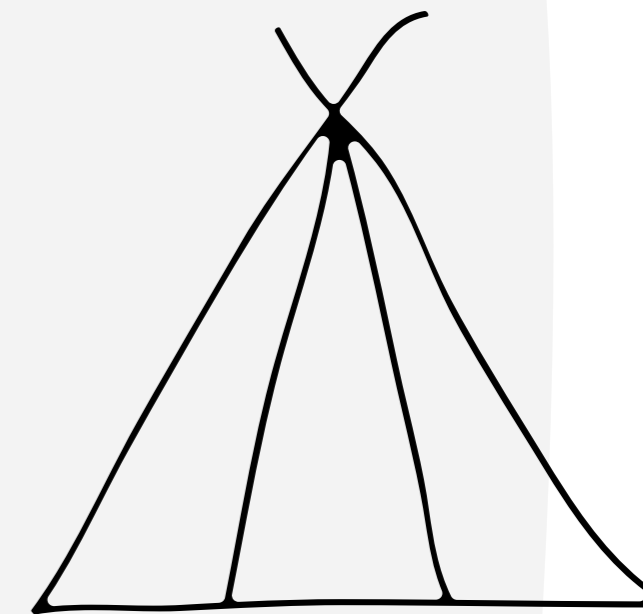
It is as if the mind automatically decides whether something is good or bad and then evaluates risks and benefits accordingly. Even if they know what actual risks and benefits are, it is likely that their feelings will determine their behavior if their feelings are inconsistent with the information (e.g., they feel worried about something they know is unlikely to happen). Thus, even if a person rationally knows that vaccination carries low risk but offers high benefits, if they do not feel this positively about vaccination, they are unlikely to get a vaccine and thus expose themselves to a higher risk of infection.



How do feelings apply in displacement settings?

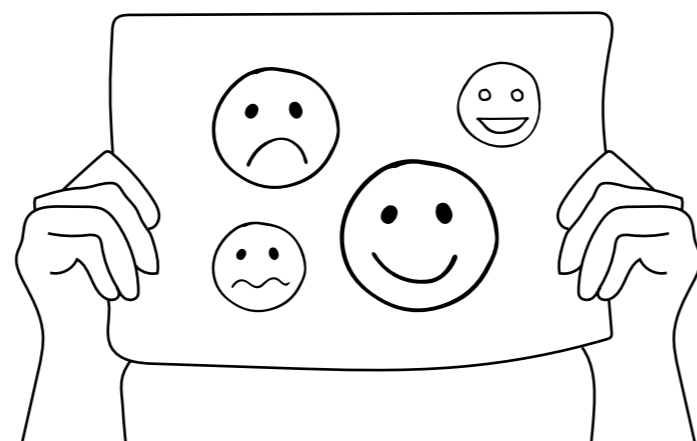
Fear and uncertainty surrounding the pandemic can lead people in displacement settings, who are in already stressful situations, to seek information that appears to give them a feeling of closure, regardless of the quality of the information.

Examples of information that allows such closure (as it suggests either an easy way to act or makes a person feel immune to harm) are beliefs in natural remedies such as locally-available fruits like bananas or ginger, and beliefs in immunity due to skin colour, religion or local weather conditions. People also often have strong and negative feelings towards formal authorities, like local and national government. This could mean that communications from authorities are unlikely to be effective and may even backfire if people's automatic feelings toward the communications are negative because of their feelings toward the authority. In Kenya, state response in the form of heavy policing and brutality to enforce the curfew generated anger against the authorities, causing people to be skeptical of COVID-19 in general and reject preventative behaviors.



Incorporating **feelings** into communications

If communications are to influence people's beliefs and behaviors, then, in addition to providing them with the relevant information about a topic, like the risk of contracting COVID-19, communications must change how recipients of information feel about the topic. This can be done by:



Providing vivid descriptions through personal stories:

One of the best ways to influence how people feel is to provide them with vivid descriptions. This can often be achieved by using personal anecdotes or stories rather than population-level statistics. Concretely, this could mean to relay stories about **infection** by providing examples of people's personal experiences with COVID-19 (e.g., how they felt, how it impacted their family) or about **vaccination** by providing examples of positive changes in people's lives after getting the vaccine (e.g., lower anxiety and greater peace of mind for themselves and their family or less severe disease).

Harnessing negative feelings:

Information that uses negative framing to make people aware of high risks could create such awareness, but could also simultaneously make people feel powerless and unable to control such high risks, thus causing people to reject or avoid the information. In order for information campaigns to promote positive behaviors by harnessing such negative feelings in constructive ways, messages could prime a feeling of fear of COVID-19 and its consequences by highlighting risks through negative framing, but then give people concrete advice what they can do to manage the risks, thus making them feel empowered to do something to reduce this feeling (e.g. by taking the vaccine).

2 Trust in the source



What is it??

TRUST IN THE SOURCE

“ Who someone perceives as the source of a piece of information, and whether they trust them, affects whether they believe the information.

Their level of trust depends on whether they think the source is similar to them, likely to act in their best interests, and knowledgeable about the topic the information concerns. When they trust the source of inaccurate information and distrust the source of accurate information, people are likely to hold inaccurate beliefs. These beliefs can alter their risk perceptions, meaning that they might over- or underestimate a risk, which can lead them to behave in ways that can be harmful.



For example, a person might believe misinformation about natural remedies for COVID-19 because it comes from someone they or their friends and family trust.

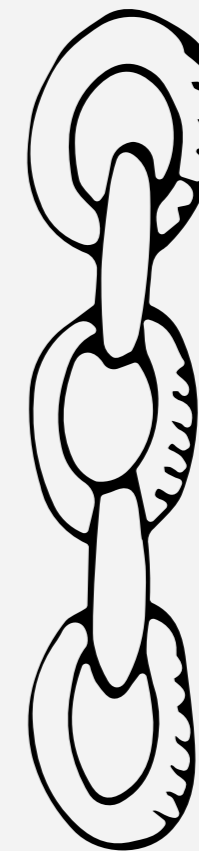
Similarly, it can be very difficult for that person to believe accurate information about the low risk of side effects from a COVID-19 vaccine if they do not trust the perceived source of the information, e.g. a government authority. In each situation, their trust in the source alters their risk perceptions. This can lead them to engaging in risky behaviors by taking a remedy that cannot protect them and foregoing a vaccine that can.



How might trust in information sources play out in displacement settings?

People in displacement settings can hold strong in-group and out-group identities, meaning they have an acute awareness of which group they are a member of and who the people are that are members of a different, possibly even adversarial, group.

These group identities can mean that information that is perceived to come from a source linked to an out-group, such as a radio station affiliated with a person's political opponent, is likely to be immediately discredited and discarded, regardless of whether the information is true. Whilst the level of trust in different sources varies according to people's age, identity and situation, there are some common patterns. Individuals in displacement settings tend to trust informal sources, such as religious leaders, community leaders and local media outlets, and distrust formal sources, like local and national government, and perceived outsiders, such as international NGOs unless they have deep and stable community ties.



Incorporating **trusted sources** into communications



To believe information that humanitarian agencies share, people need to see the information as coming from a trusted source. This requires that humanitarian agencies understand who the trusted sources are and whether they can incorporate them into their communications.

Once trusted sources have been identified, humanitarian agencies need to work out if they can use a source, and if so, how. There are different ways of doing so.

For example:

- Collaborate with trusted sources on developing communications (e.g., preparing an SMS or voice recording by the source).
- Share examples of information that the source has already shared or endorsed (e.g., sources might engage in public events, like radio interviews, where they endorse information; humanitarian agencies can forward on this information to their target population by, for example sharing audio recording of the interview)

A two-step process can help identify who trusted sources are:

- 1** Prepare an initial list of sources who people are likely to trust (e.g., community leaders, religious leaders, etc.)
- 2** Get feedback or conduct research on this list involving the target population to find out who they trust and to what extent.

Regardless of how the source is used, **it is worth checking** whom people recognize as the source of information in a piece of communication, as recipients of information might not always identify the source in expected ways. In a recent research project with a humanitarian agency, Busara piloted an SMS that explicitly referenced the World Health Organization as the source of the information. However, a number of recipients attributed the information in the SMS to a local NGO with no relation to the information. To check who people identify as the source of information, humanitarian agencies can first share the communication with a small number of individuals from the target population and see who they locate as the source. This may be particularly valuable when there is a chance that important health information might be misattributed to a source people do not trust.

3 Mere exposure effect



What is it ??

MERE EXPOSURE EFFECT

“ Repeating a claim makes it more believable than mentioning it only once. Hearing the same piece of information multiple times suggests that the information is accurate and truthful, both characteristics that influence beliefs. This holds true for information that contradicts a person’s prior knowledge as well as novel information. For repeated exposure to influence perceptions of accuracy, the message has to contain the same type of information each time. With social media and platforms such as WhatsApp, exposure of similar, related information with greater frequency can be achieved effortlessly. While it is observed that a minimum number of exposures is needed to produce this effect, the effect itself seems to decrease in size after 10-20 exposures.

This mechanism is very challenging for communication campaigns because the information that a person is exposed to—misinformation or not—is sticky: Even after people receive clear and credible corrections about a misbelief, misinformation continues to be perceived as true and influences their beliefs and decision-making if they have been exposed to it enough. This challenge grows with increased exposure to the misinformation.

For example:

Information about local cures to prevent and treat COVID-19 has been **repeated several times**, contributing to the widespread belief of their superior effectiveness over, e.g. prevention through vaccination. **Repeated exposure** to the same message generates cues that influence people’s judgement about truthfulness of the information.



Repetition makes information more familiar, easier to process and understand, as well as making it stick in people’s memory.

Another effect of repetition is that people start believing that multiple sources have quoted the same information, even if they have heard the information from the same source repeatedly, which is a mechanism that contributes to the growing credibility of factually incorrect information.



How does the mere exposure effect apply in displacement settings?

As internet penetration increases among displaced communities, and WhatsApp and social media use become major or dominant means of communication, excessive exposure to misinformation can lead to more familiarity and fluency with factually incorrect information.

This was seen in Kenya as rumours were spread on WhatsApp groups, or channels like Facebook groups with repeated exposure to the same types of rumours including non-verified remedies for COVID-19.

Using **exposure** in communication

Mere exposure can cause campaigns against misinformation to backfire. This is counterintuitive, but behavioral insights do not discriminate between good and bad information. This means that repeating a claim, even a claim that debunks another piece of information, could make the original misinformation more familiar, top-of-mind, or fluent.

This behavioral mechanism then contributes to tricking people into believing the factually incorrect information.



To negate the effect of the mere exposure effect requires ensuring that the positive health-promoting information is offered with even more exposure: to negate the effect of increased frequency of false information requires giving even more of the good information, for example by;



1 Increasing exposure to campaigns showcasing positive health behaviors:

Exposing people as much as possible to campaigns that widely promote and popularize consistent counter-information to readily accessible misinformation. This requires using multiple platforms such as social media, traditional media and local awareness campaigns, for example through public gatherings. Non-profit organizations such as FilmAid, Africa's Voices Foundation and Kakuma Hub are championing this approach in displacement settings, relying on social media platforms, SMSs, WhatsApp groups, loudspeakers and radios to reach large audiences using multiple channels.



2 Create positive feelings through repeated exposure:

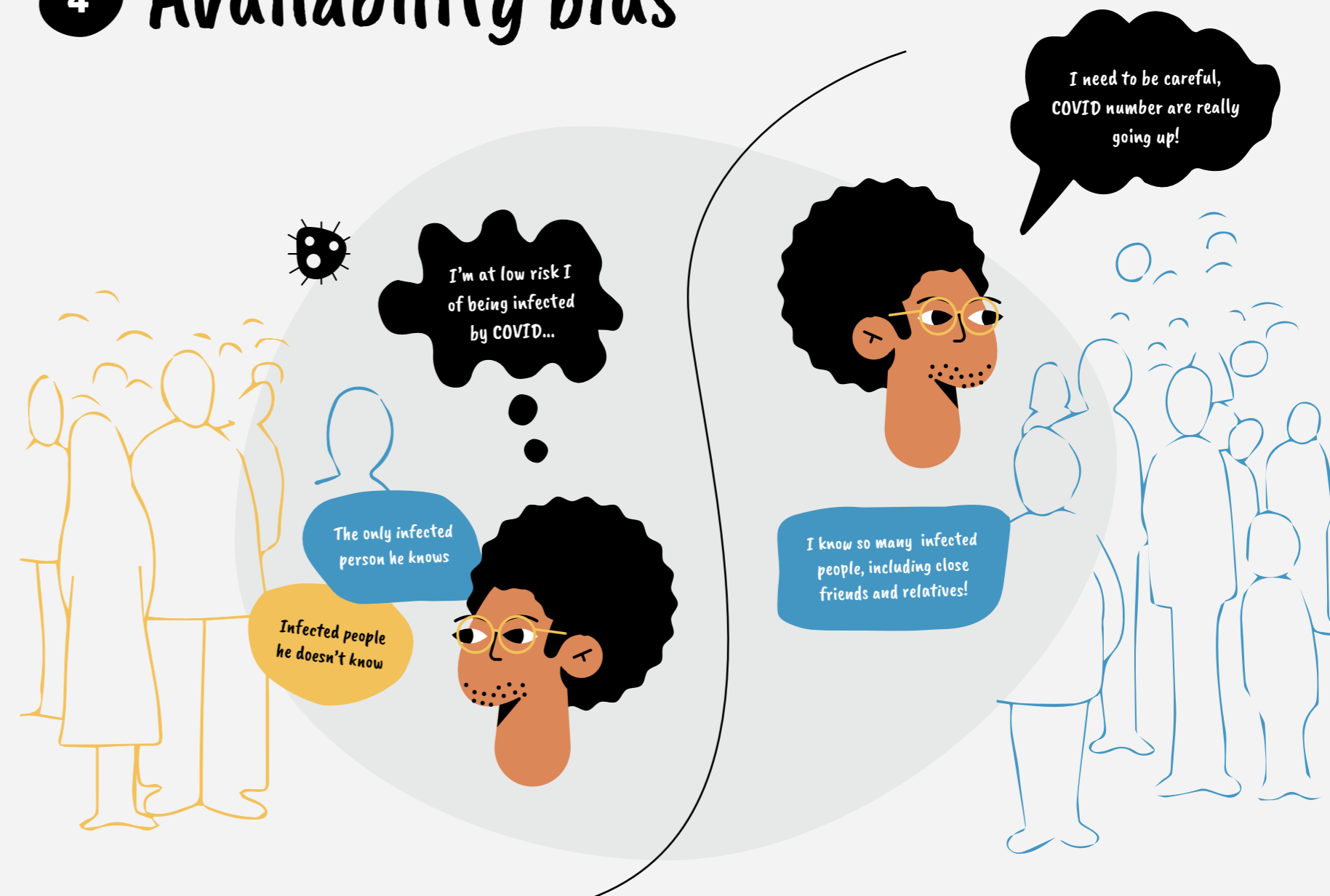
People prefer things they have seen before or with which they are familiar. Campaigns can cultivate positive feelings towards these behaviors by increasing exposure to information that shows several individuals wearing masks or getting vaccinated. Testimonials showing people talking positively about the behavior on multiple channels such as local radio and demonstrations could increase familiarity with the positive message, combining exposure with a positive stimuli.



3 Avoid repeating the misinformation in campaigns:

Campaigns can minimize the mere exposure effect of misinformation by focussing only on presenting alternative arguments and behaviors to the misinformation, rather than directly debunking it.

4 Availability bias



What is it ??

“ When people form beliefs and make decisions, they tend to focus on the information that is top of mind, meaning information which comes to mind quickly and easily. People rarely consider the validity of this top-of-mind information or reflect on whether they require additional information. As a result, when the information that is top of mind is lacking detail or is plain wrong, people make mistakes.

For example, people might assess the risk of getting infected with COVID-19 according to the number of people of whom they can quickly and easily think of who have been infected.

This will likely depend on infection rates among their social network: friends, families, neighbors, etc. If few people in their social network have been infected, they might believe that the risk of infection is low, regardless of the actual risk. They may then unknowingly expose themselves to unnecessary risk as a result, by not wearing a mask, not maintaining social distance, or declining to be vaccinated.

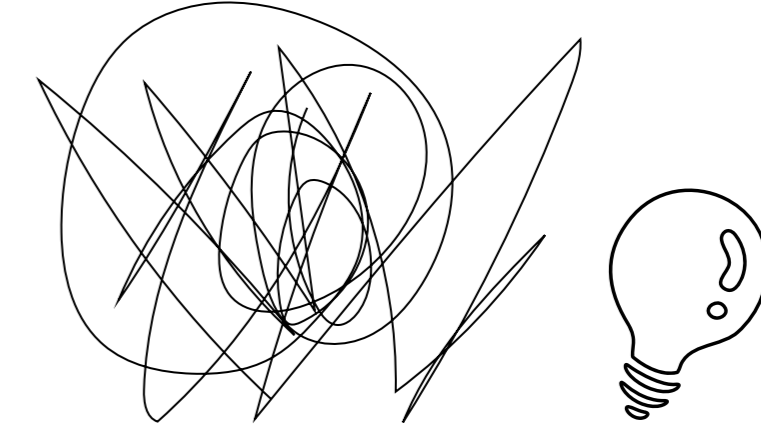
How might **availability bias** play out in displacement settings?

Displacement settings can act as amplifiers of misinformation through a vivid rumour mill, which turns into an echo chamber since people have most of their interactions with a limited set of people.

As people repeatedly hear simple and easy-to-remember rumours about COVID-19, such as using local foods as remedies, this information is likely to be top of mind and influence their beliefs and behavior.

Incorporating the availability bias into communications

People’s beliefs and behaviors depend on the information that is top of mind for them (i.e., information which comes to mind quickly and easily). Communication campaigns can take advantage of this in two ways:



Share information that will be easily remembered

For example, communications aiming to encourage vaccination could provide examples of well-known individuals who received the COVID-19 vaccine without serious side effects. This could make vaccines appear safer by reducing the perceived risk of serious side effects.

Time communications to coincide with a moment in which people are able to take action so that information is fresh when it comes to a decision

For example, time communications about the risk of infection to coincide with when individuals are likely to be exposed to risk (e.g., days of religious worship, festivals and food distribution days) or information about positive vaccination experiences just before a vaccination drive.

5 Confirmation bias



What is it ??

CONFIRMATION BIAS

“ People have a tendency to seek, interpret and remember information that supports their existing belief and tend to ignore information that does not confirm or contradicts what they believe. This means that, no matter what information is on offer, people only see what they want to see and only believe what they want to believe, no matter how strong the evidence is that supports other ideas.

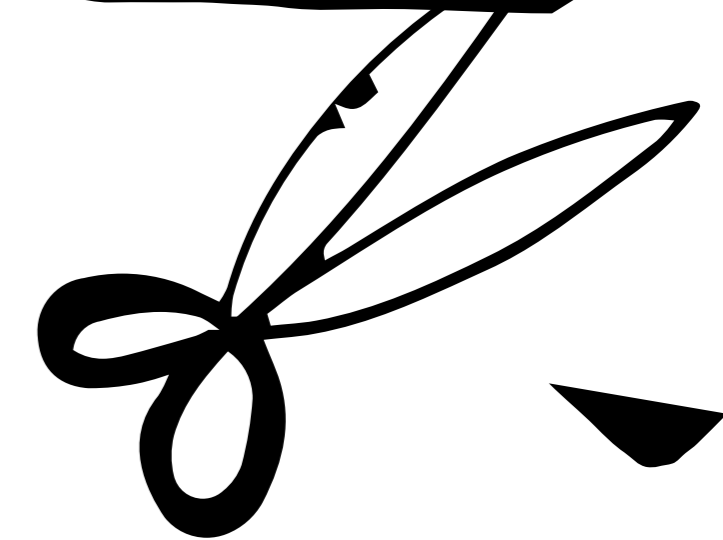
For example:

If a person skeptical of a COVID-19 vaccine hears a story (on the internet, news or through a friend) about a small group of people dying from COVID-19 despite vaccination, **they would experience this evidence as confirming their beliefs.** Even if there is a lot more information about people who were spared COVID-19 due to vaccination, that person will systematically (consciously or subconsciously) ignore pieces of evidence that challenge their beliefs that vaccination is pointless.



They will evaluate a piece of information according to what they want to see in order to confirm their anti-vaccine sentiments.

Due to confirmation bias, people start privileging sources of information that reinforce/confirm their worldviews and ideological standpoints. This is problematic as individuals and groups only seek information from their in-group, limiting their exposure to differing viewpoints and resulting in a polarized understanding of the world. It contributes to the phenomenon of echo chambers and filter bubbles, where people only take in information that confirms their views, rather than challenges it.





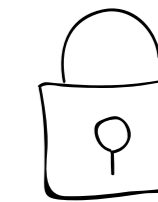
How does **confirmation bias** apply in displacement settings?

Strong group identities coupled with negative feelings about an authority (for example, when a community feels aggrieved by how it has been treated by the state) can amplify the role of confirmation bias in humanitarian settings.

In DR Congo, a distrustful relationship with authority and preventative practices that violated local customs (e.g. dealing with corpses) fueled conspiracy theories about the existence of the disease during Ebola. The same beliefs resurfaced during COVID-19, spreading anger against authorities (e.g. violence against health workers) and fueling scepticism of the disease.



Overcoming **confirmation bias** in communications



To ensure that provided information is not driving extreme disagreement and automatic rejection, information might be more effective if it is packaged in ways that do not drastically challenge people's existing beliefs and worldviews. Possible ways of doing that are:

Choosing the right agent for communicating information:

Information coming from a local, relatable source (**one identified, for example, by implementing previous recommendations on how to identify a trusted source**) might be more effective at reaching target communities and encouraging critical reflection on challenging information, thus overcoming confirmation bias. The Kakuma News Reflector (Kanere), is, for example, a refugee-led media initiative in Kenya's Kakuma refugee camp. Run by resident refugee journalists, Kanere provides information on regional developments and relevant information to the community from localized sources, thus capitalizing on its writers' in-group status as fellow refugees and the use of trusted, local sources.

Presenting content and agent as neutral:

Since confirmation bias kicks in early on (**it is a strong emotional reaction, rather than a considered and reflected one**), presenting information with a more neutral fact base can help in countering outright rejection and gain a little bit of time needed to get people to reflect on a situation. Having multiple outlets that report on information from different angles might help in forming a more objective body of evidence; this could be supported through organizations that are specifically mandated to collect and evaluate information.

Use language that is inclusive and does not stigmatize groups that hold inaccurate beliefs:

Calling out people's deeply-held beliefs as wrong and imprecise can be painful and make people feel excluded, rejected and even more unwilling to reconsider their beliefs. This will make them more averse to new information. Instead, information can lead to what is called '**belief updating**' if it is communicated using language that is inclusive, non-righteous and is not taking sides between groups.

6 Social norms



What is it ??

“ Individuals are guided by and follow what others in their community are doing. People more readily hear and react to information shared by their social community. If people experience others in their social group exchange information, they may perceive the information as accurate without feeling the need to evaluate its authenticity. Each person who accepts an idea or an ideology within a group adds more validity to the information (regardless of the quality of information) and cascades the information to more people in the group). Individuals may also conform to the information or group norms as a way to fit into the group and avoid rejection from their friends and family.

For example:

One person floats the idea that COVID-19 is a government conspiracy targeting their social group (based on shared religion, origin, language, identity as a refugee etc) and spreads this idea among the community.



This creates growing adversarial relationships between members of that group and representatives of the state, leading to tension and possibly violence.

People from the identity group might be more likely to participate in violence if others do, as they want to conform to the group's beliefs. **This cycle of events polarises the group further.**

The influence of social norms can be particularly damaging when it comes to the spread of misinformation when central nodes in the community, that is, people who are established in a community and have influential contact with multiple people, signal unfavorable norms or spread misinformation. They influence people directly by passing on information to a larger group of people and indirectly by setting a precedence of spreading such information that others will emulate.



How do **social norms** apply in displacement settings?

Experiencing violence or conflict can make people more partial towards their own local group and biased towards other groups in the community.

At the start of the pandemic, this was observable in Kenya and DR Congo, where incidents of violence against health workers and COVID-19 patients were reported, who were perceived by local communities as being the out-group.

Incorporating **social norms** into communication

Social norms prompt herd behavior and agencies can leverage such norms and the behavior it nourishes to promote positive outcomes. Social norm interventions have been successful across multiple domains, for example in reducing energy consumption, increasing tax compliance, promoting HIV prevention, or uptake of menstrual hygiene products.



Social norms might be applied to the problem of misinformation by:



1 **Combining correction techniques with information about what others are doing or believe:**

In addition to diffusing correct information among communities, communicating what others in the community are doing could reinforce health-promoting norms. For example, an information campaign might state that **'90% of parents in your community are getting their children vaccinated'**, which establishes vaccination as a social norm. However, this approach is only helpful in cases where there is a high prevalence of the desired behavior that can be reported on. It can backfire if people feel that what is promoted is not actually desired by their community. One entry point towards using correction techniques has been used by the NGO **The Sentinel Project**.

Crowdsourcing and verifying rumors by asking community members means that the NGO can leverage social norms to communicate to people that a particular piece of information has been tagged as a rumor by members of their own community, thus triggering social norms behavior in how that information is viewed.

2 **Combining correction techniques with information on what is perceived as the right thing to do:**

In instances where the majority of the local group is not practicing a desired behavior, communicating that others in the group approve of the behavior as the right thing to do can prompt positive health behaviors. For example, communicating that getting vaccinated is the right thing to do for your community or that 70% of your community believe that COVID-19 vaccinations can stop the spread of the virus can establish vaccination as the dominant social norm.

3 **Using central nodes to model positive norms:**

Instead of seeing influential people within a community as potential barriers to ward off misinformation, such central community nodes can offer an opportunity to actively spread correct information and model desirable behaviors to a large number of people (e.g. respecting local curfews, endorsing mask wearing and getting vaccinated). These central nodes could be local agents of change (or the trusted sources established earlier) such as religious leaders, community chiefs or other well-connected people in a community without a formal designation.



Applying behavioral insights for better design of communication and anti-misinformation programs

A checklist for designing information campaigns

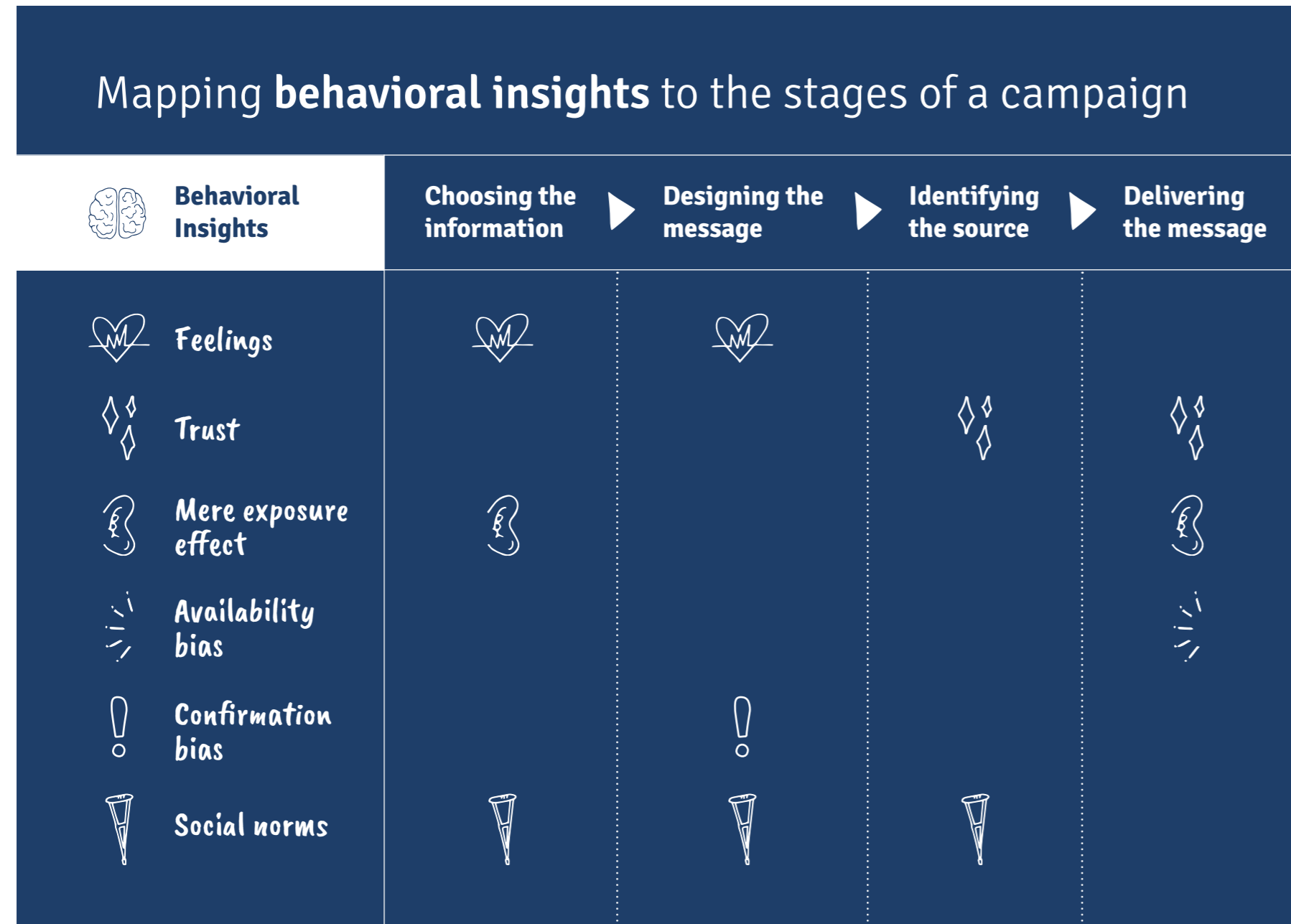
Checklist

6 *behavioral insights* can help to better understand how people form the beliefs that ultimately guide their behavior

Here we present a simple checklist for thinking through how you can apply these behavioral insights across the different stages of an information campaign. We present a series of questions you can ask yourself at every step of the campaign design and implementation phase to deliver information tailored to the interpreter (target audience). **These questions will help tailor the insights to be appropriate and optimised for a specific community, region, country.**

It is recommended to administer this checklist to a comparable pool of ‘interpreters’ whom the intervention will ultimately target. You may find that answers to some of these questions are already in hand from previous engagement efforts. Some of the factors in the checklist (such as the most trusted messenger) might have remained unchanged over time. However, it is useful to be cautious when assuming that things are still the same. Contexts, especially those of emergency humanitarian settings, are dynamic. **Insights from this checklist are likely to be most helpful when gathered within the same time period of or very close to the point of intervening.** This is especially the case as it relates to the feelings of the interpreter and in identifying prevalent beliefs.

The checklist can be integrated as stand-alone questions in a survey or interview format, or used to structure co-design sessions with members from the target audience.



Questions to ask

When choosing the information

Feelings

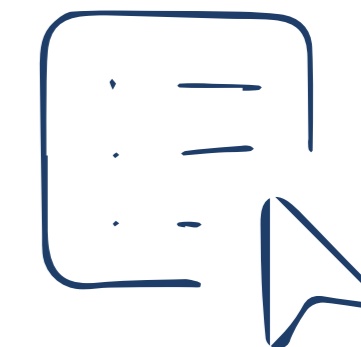
- If a specific action is being called on, is it assured that individuals are able to take this action or do obstacles need to be removed first?
- How can individuals be prompted to overcome the obstacles?
- Can a communication campaign be coupled with a separate intervention that increases people's agency to act on their feelings?

Social norms

- What are the prime identities or social groups that the target audience identifies with?
- What are the popularly held beliefs and behaviors propagated by the group on the health topic?

Mere exposure effect

- What existing information about the health topic are people exposed to?
- What is the magnitude of this exposure?



Questions to ask

When designing the message



Feelings

- Do people have negative feelings towards the information that could influence judgement and encourage retention of misinformation?
- Does the message need to downplay fear or loss and frame the information positively?
- Are there stories or experiences within the community that can be highlighted to balance positive and negative feelings?

Confirmation bias

- What do people currently believe that is a neutral fact?
- What prior beliefs can interfere with the information provided?
- Does the language used in the message exclude or call-out certain groups of people?

Social norms

- How can people's identity be used in the message to speak more personally to them?
- Are there desirable actions that fellow members of the community are taking?
- How can desirable actions of community members be made more visible?
- If others in the community have positive opinions, how can these be highlighted?

Questions to ask

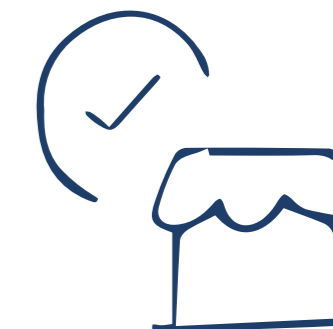
When identifying the source

Trust

- Who or what authority is trusted at the individual and community level?
- Is the messenger trusted for communication related to health behaviors?
- How would the receiver know that a message has been communicated by a trusted source, that is, how are you signalling the source?
- When is the source most effectively mentioned (e.g., at the beginning or end of the message)?
- How should the source be mentioned in the message? (e.g. do people recognize the local NGO by its official name or is there a local name)?

Social norms

- Are there influential and powerful people within the community (e.g. religious leaders, community leaders, celebrations, public figures) who can be leveraged to deliver and endorse the message?
- Should these public figures be specific to community sub-groups or can they cut across national audiences?



Questions to ask

When delivering the message

Trust

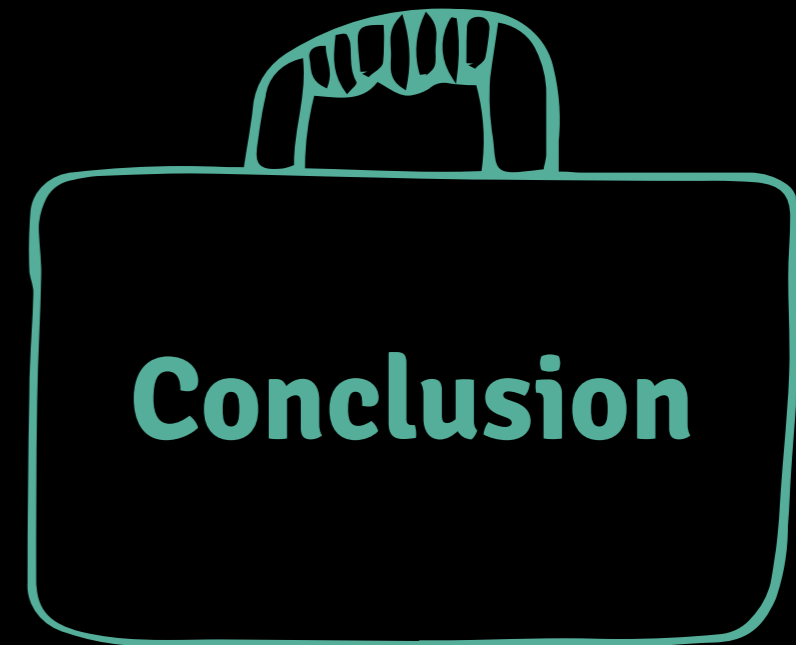
- From which channel(s) should people receive the message?
- Which channels - online and offline - are visited most frequently and seen as credible?
- What community locations are frequented by individuals, and when?

Mere exposure effect

- How often should people receive the message to keep the message salient without causing message fatigue?
- Can we use multiple channels for delivery to reinforce the same message?

Availability bias

- What moments or instances in the day/week/year will the topic be most salient in people's minds?
- How can the message be best timed to facilitate individuals to register it and take action if needed?



In times of a disease outbreak, fear, panic and mistrust can fuel the spread of false information and beliefs, deepening communal tensions and worsening health outcomes. **In humanitarian settings, these cleavages can be made worse due to strong group identities, exclusion from host and other communities, and internalized prior beliefs.** Spreading awareness and knowledge about symptoms, prevention, transmission and treatment of a disease during a public health crisis is the responsibility of grassroots organizations, civil society organizations, governments and community leaders. These organizations have to survive in an environment of misinformation and social extremities to offer factually correct information to different factions of society.

If you are an organization who finds itself in the middle of this puzzle, this guide can help you rethink and structure communication campaigns more effectively, beyond offering scientifically proven alternatives.

This guide presents three key elements of information exchange: **agent, content, interpreter.**



Since behavioral science offers theories to understand human behavior, **the guide focuses on the interpreter of the information and presents six behavioral insights that influence how an interpreter engages with their information environment.** Understanding the mental, emotional and social make up of your audience, beyond using broad demographic categories such as age, gender, education, and religion, will enable organizations to structure information according to the needs, beliefs and preferences of their target group, making the information they deliver more powerful.

The **6 behavioral insights** presented in this guide manifest in different ways across various stages of a campaign.

For instance, when choosing what information to disseminate, understanding the social groups and their prior beliefs will be instrumental in selecting information that does not alienate communities and spur negative feelings of exclusion or disrespect. Similarly, when designing the specific message, focussing on which social identities can help promote positive behaviors and how to spotlight these identities can determine the success of the message.



The information in this booklet is a starting point and an attempt to infuse a more **human-centered approach** to designing information campaigns.

Although these six behavioral insights are rooted in rigorous academic literature, they have not been applied and tested with specific Somalian refugees in Kenya or asylum seekers in Democratic Republic in Congo. These insights need to be tailored to the individuals and the context within which the information is being delivered before being scaled. **The guide presents a toolkit (questions and information organizations should collect) that should be deployed at the start of designing information campaigns to ensure the behavioral insights are being applied in a contextually relevant manner.** As organizations have the closest ties with and solid understanding of the community, they are best placed to apply the information in the toolkit to the populations they serve.

Acknowledgements

A big thank you to **Dhwani Yagnaraman**, **Freddie Carver** and **Francis Mutua** who offered their generous time and knowledge to the guide.

We would like to thank **Elrha** for supporting this project. In particular, we would like to thank the R2HC team - **Simon Pickard**, **Jessica Brown** and **Cordelia Lonsdale** - for their constant guidance and support.

We would also like to thank our partners - **Danish Refugee Council** - who were involved in the initial phases of the research, which helped identify information included in this report.

References

Introduction

- I1. World Health Organization (2020). Cross-Regional Statement on “Infodemic” in the Context of COVID-19. C. Australia, France, Georgia, India, Indonesia, Latvia, Lebanon, Mauritius, Mexico, Norway, Senegal, South Africa. Geneva, WHO, page 1.
- I2. Schomerus, Mareike, Krittika Gorur, Pooja Gupta, Daniel Hernandez, Sandhya Srinivas, Alice Escande, Mark Milrine, Chang Tang, Lara Tembey (2022). A complicated relationship: Bringing behavioural science into the fight against COVID-19 misinformation in displacement settings Nairobi, Busara Groundwork 1. Nairobi: Busara Center.

How does information spread?

- S1. Wardle, C., & Derakhshan, H. (2017). Information disorder: Toward an interdisciplinary framework for research and policymaking. Strasbourg Cedex: Council of Europe.

Feelings

- F1. Loewenstein, G. F., Weber, E. U., Hsee, C. K., & Welch, N. (2001). Risk as feelings. *Psychological Bulletin*, 127(2), 267; Slovic, P., Finucane, M. L., Peters, E., & MacGregor, D. G. (2004). Risk as analysis and risk as feelings: some thoughts about affect, reason, risk, and rationality. *Risk analysis: an official publication of the Society for Risk Analysis*, 24(2), 311-322.

Trust in the source

- T1. Maclean, J. C., Buckell, J., & Marti, J. (2019). Information source and cigarettes: Experimental evidence on the messenger effect (No. w25632). National Bureau of Economic Research.
- T2. Maier, M., Adam, S., & Maier, J. (2017). Does the messenger matter? A comparison of the effects of Eurosceptic messages communicated by mainstream and radical right-wing parties on citizens' EU attitudes. *Journal of Elections, Public Opinion and Parties*, 27(3), 330-349; Schomerus, Mareike, Krittika Gorur, Pooja Gupta, Daniel Hernandez, Sandhya Srinivas, Alice Escande, Mark Milrine, Chang Tang, Lara Tembey (2022). A complicated relationship: Bringing behavioural science into the fight against COVID-19 misinformation in displacement settings Nairobi, Busara Groundwork 1. Nairobi: Busara Center.

Mere exposure effect

M1: Pennycook G, Cannon TD, Rand DG. (2018) Prior exposure increases perceived accuracy of fake news. *J Exp Psychol Gen.*147(12):1865-1880.

M2: Ecker, U.K.H., Lewandowsky, S., Cook, J. et al. (2022) The psychological drivers of misinformation belief and its resistance to correction. *Nat Rev Psychol* 1, 13–29.

M3: Bornstein, R. F. (1989). Exposure and affect: Overview and meta-analysis of research, 1968-1987. *Psychological Bulletin*, 106(2), 265–289.

M4: Begg, I. M., Anas, A., & Farinacci, S. (1992). Dissociation of processes in belief: Source recollection, statement familiarity, and the illusion of truth. *Journal of Experimental Psychology: General*, 121(4), 446–458.

M5: Wei-Chun Wang, Nadia M. Brashier, Erik A. Wing, Elizabeth J. Marsh, Roberto Cabeza. (2016) On Known Unknowns: Fluency and the Neural Mechanisms of Illusory Truth. *J Cogn Neurosci*. 28 (5): 739–746.

M6: Unkelbach, C. & Rom, S. C. (2017) A referential theory of the repetition-induced truth effect. *Cognition* 160, 110–126.

M7: Lewandowsky S, Ecker UK, Seifert CM, Schwarz N, Cook J. (2012) Misinformation and Its Correction: Continued Influence and Successful Debiasing. *Psychol Sci Public Interest*. 13(3):106-31.

M8: Schomerus, Mareike, Krittika Gorur, Pooja Gupta, Daniel Hernandez, Sandhya Srinivas, Alice Escande, Mark Milrine, Chang Tang, Lara Tembey (2022). A complicated relationship: Bringing behavioural science into the fight against COVID-19 misinformation in displacement settings Nairobi, Busara Groundwork 1. Nairobi: Busara Center.

M9: Schomerus, Mareike, Krittika Gorur, Pooja Gupta, Daniel Hernandez, Sandhya Srinivas, Alice Escande, Mark Milrine, Chang Tang, Lara Tembey (2022). A complicated relationship: Bringing behavioural science into the fight against COVID-19 misinformation in displacement settings Nairobi, Busara Groundwork 1. Nairobi: Busara Center.

M10: Giroux, M., Park, J., Kim, J. E., Choi, Y. K., Lee, J. C., Kim, S. S., Jang, S., Gonzalez-Jimenez, H., & Kim, J. (2021). The Impact of Communication Information on the Perceived Threat of COVID-19 and Stockpiling Intention. *Australasian Marketing Journal*, 183933492110286.

Availability bias

A1. Tversky, A., & Kahneman, D. (1973). Availability: A heuristic for judging frequency and probability. *Cognitive Psychology*, 5(2), 207-232.; Tversky, A., & Kahneman, D. (1974). Judgment under Uncertainty: Heuristics and Biases: Biases in judgments reveal some heuristics of thinking under uncertainty. *Science*, 185(4157), 1124-1131.

Confirmation bias

C1. Nickerson, R. S. (1998). Confirmation Bias: A Ubiquitous Phenomenon in Many Guises. *Review of General Psychology*, 2(2), 175–220.

C2, C3: Sikder, O., Smith, R.E., Vivo, P. et al. (2020) A minimalistic model of bias, polarization and misinformation in social networks. *Sci Rep* 10, 5493).

Social norms

SN1. Bicchieri, C. (2004). Rationality and game theory. In P. Rawling & A. R. Mele (Eds.), *The Oxford Handbook of Rationality* (pp. 182--205): Oxford: Oxford University Press.

SN2: Miller, D.T. & Prentice, D.A. The construction of social norms and standards. in *Social Psychology: Handbook of Basic Principles* 799–829 (Guilford Press, 1996).

SN3: Bikhchandani, S., Hirshleifer, D., Tamuz, O., & Welch, I. (2021). Information cascades and social learning (NBER Working Paper 28887). NBER.

SN4: Wood, W. (200) Attitude change: persuasion and social influence. *Annu. Rev. Psychol.* 51, 539–570.

SN 5: Mironova, V., & Whitt, S. (2018). Social Norms after Conflict Exposure and Victimization by Violence: Experimental Evidence from Kosovo. *British Journal of Political Science*, 48(3), 749–765. Cambridge University Press.

SN6: Schomerus, Mareike, Krittika Gorur, Pooja Gupta, Daniel Hernandez, Sandhya Srinivas, Alice Escande, Mark Milrine, Chang Tang, Lara Tembey (2022). A complicated relationship: Bringing behavioural science into the fight against COVID-19 misinformation in displacement settings Nairobi, Busara Groundwork 1. Nairobi: Busara Center.

SN7: Schultz, P. W., Nolan, J. M., Cialdini, R. B., Goldstein, N. J., & Griskevicius, V. (2007). The Constructive, Destructive, and Reconstructive Power of Social Norms. *Psychological Science*, 18(5), 429–434. <https://doi.org/10.1111/j.1467-9280.2007.01917.x>

SN8: Bavel, J.J.V., Baicker, K., Boggio, P.S. et al. (2020) Using social and behavioural science to support COVID-19 pandemic response. *Nat Hum Behav* 4, 460–471. <https://doi.org/10.1038/s41562-020-0884-z>





To Cite:

Busara.
Nudging knowledge.
Tackling health
misinformation in
humanitarian settings
using behavioral science.
Playbook.

Nairobi: Busara (2023)

Busara

contact@busaracenter.org
busaracenter.org



Human Illustrations by Blush.Design

