

SOCIAL LISTENING AND INFODEMIC INSIGHTS FOR A HEALTHIER INFORMATION ENVIRONMENT

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Vaccine Acceptance Meeting Series, Les

Pensières Center for Global Health

30 Oct – 1 Nov 2023



The machine runs amok



[Body](#)

Producers &
amplifiers

Designed
environment

Social norms,
relationships, and
interactions

Skills,
resilience,
literacies

Inequities

Not all information is produced or amplified and
acted on equally.

Relative contributions of multiple determinants to health outcomes

CLINICAL CARE



20%

PHYSICAL ENVIRONMENT



10%



30%



40%

HEALTH BEHAVIORS

SOCIAL AND ECONOMIC ENVIRONMENT

An unmanaged information environment can impact adherence to health guidance and lead to adverse social, behavioral and health outcomes.

McGovern, L., Miller, G., & Hughes -Cromwick, P. (2014). The relative contribution of multiple determinants to health. Health Affairs Health Policy Brief, 10(10.1377).

Information environment x health system



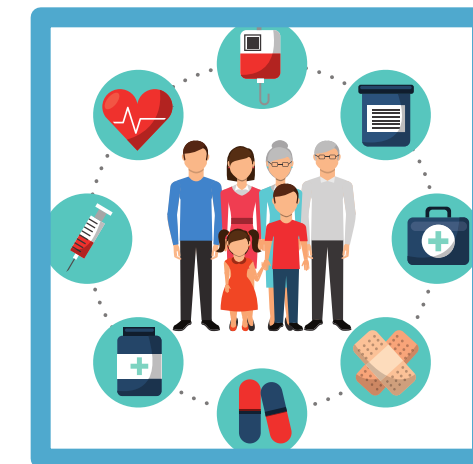
Health system

- Trust in policies and governance related to health care, supply, service delivery
- Asymmetries in demand for care and prevention
- Asymmetries in demand for supplies and health technologies



Health workers

- Trust in health workers; doxxing and harassment
- Health worker own confidence in products and services, in own knowledge about guidance and information



Health behaviors

- Risk perception of disease
- Trust in and acceptability of recommended behaviors and public health and social measures
- Trust in, safety and acceptability of devices, diagnostics, treatments and vaccines
- Social cohesion

Information environment x health system

designed and distributed to
address population information
needs and promote healthy
behaviors

Credible,
accurate health
information

Health
information
equity

availability and accessibility of
health information and
infrastructure to all
populations everywhere in
formats and channels that are
acceptable and actionable

Digital, media,
information, science
and health literacy

end users' ability to understand
and act on health information
and recognize health
misinformation

Commercial
determinants of
health
information

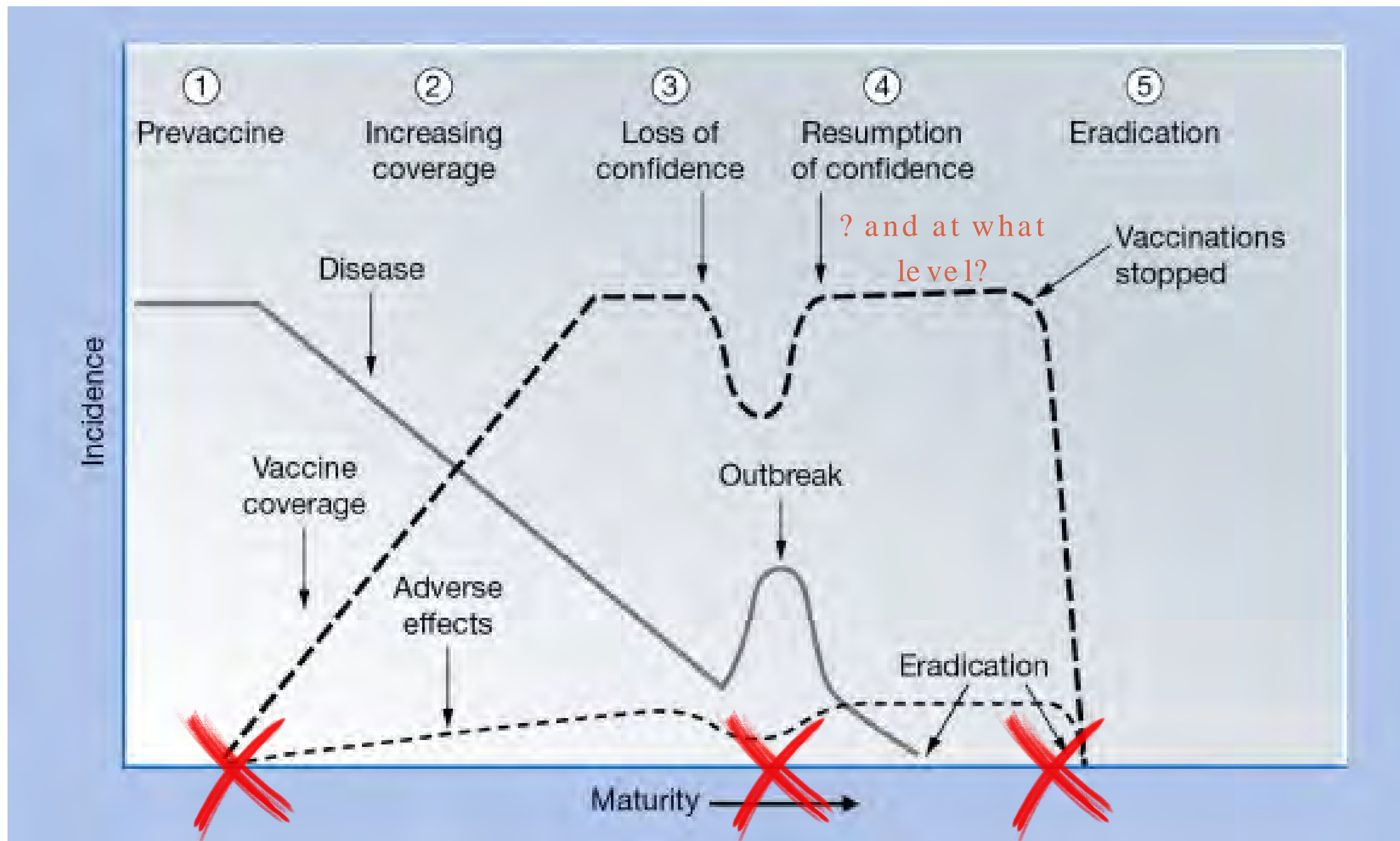
private sector forces
that impact health
information quality,
distribution and
amplification

Policy

who is responsible for
providing credible,
accurate health
information



As the immunization programme matures, it becomes more vulnerable to the changing information environment.



Inconsistent investment in social listening and integrated analysis and socio-behavioral data collection to inform communicating and engaging with communities throughout the life course can be more costly as compared to routinizing these functions.

Massive awareness campaign at the introduction of vaccine

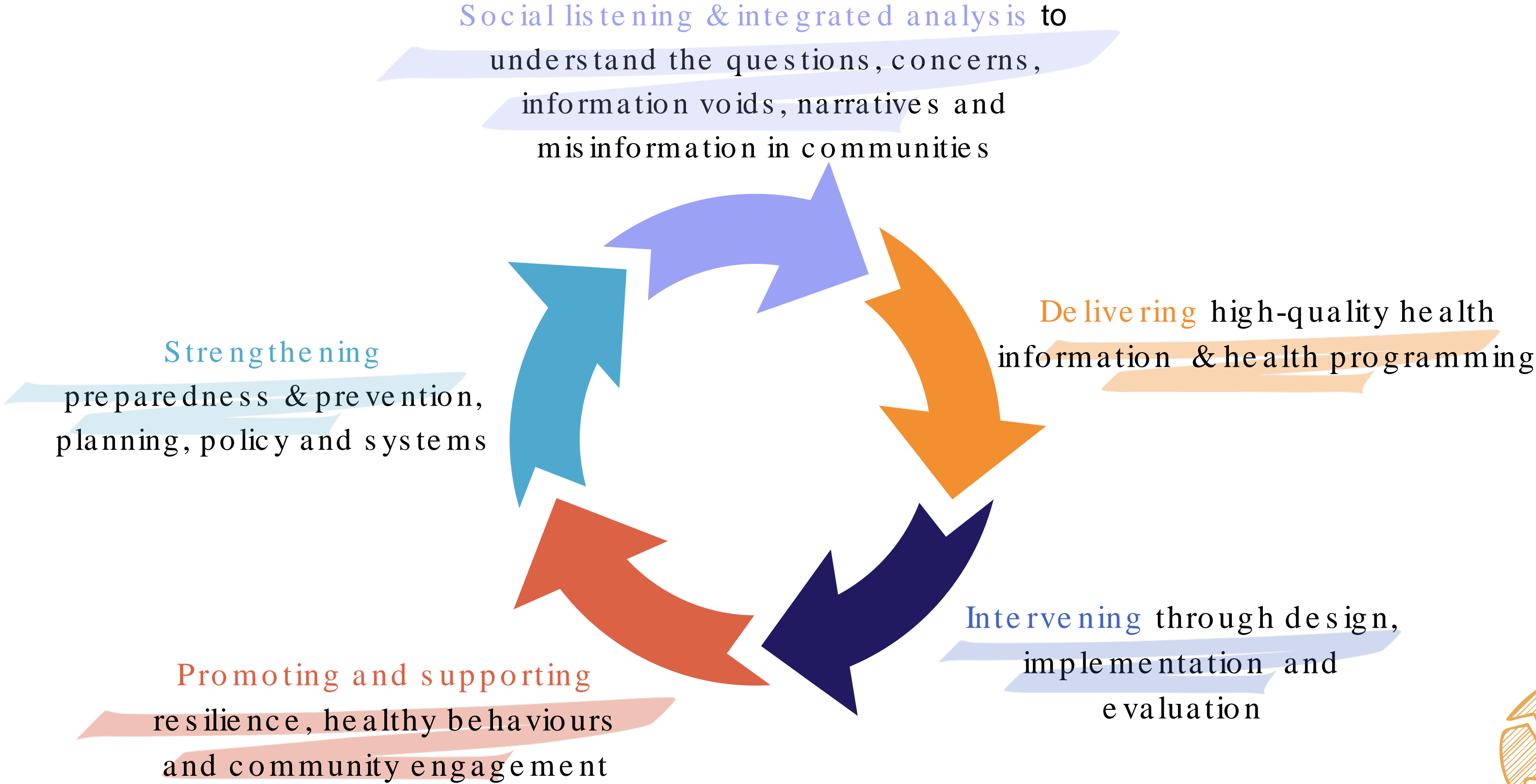
Complacency, supply and access issues trigger an outbreak, which requires another campaign to promote vaccine demand.

In the last mile, extremely expensive outreach to reach few remaining unvaccinated.





Better evidence is needed to mitigate how the information environment impacts health outcomes.



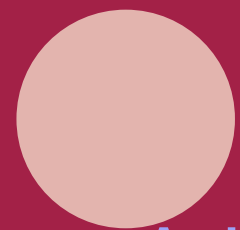


Additionally...

Health evidence is only as good as the **questions** that are asked, **assumptions** made, and the **analytical tools and methods** used.

Poorly designed questions for investigation:

- How many pieces of misinformation exist about HPV vaccine?
- How are parents talking about the keywords “AEFI” and “adverse events following immunization”?
- Where did this piece of misinformation [fill in the blank] come from?
- Who is getting the most likes and comments on MMR vaccine misinformation in Spanish?
- What kind of COVID-19 vaccine disinformation is being spread on “dark social” platforms like WhatsApp, Signal, and Telegram?



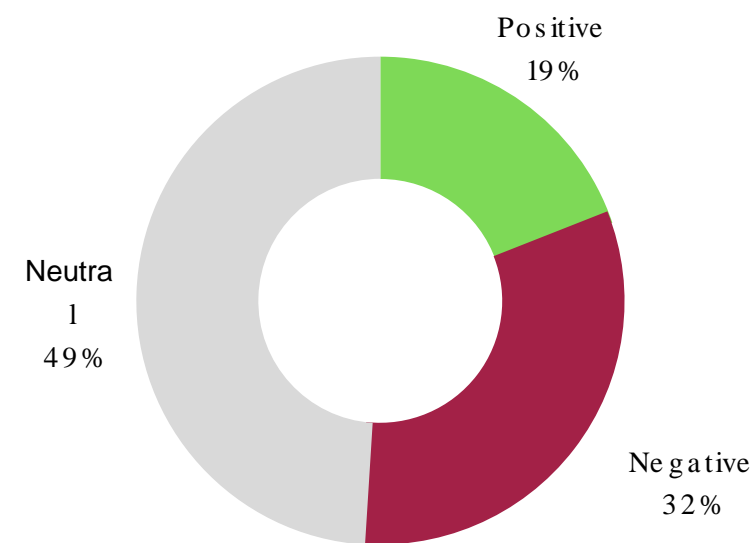
Additionally...

social listening

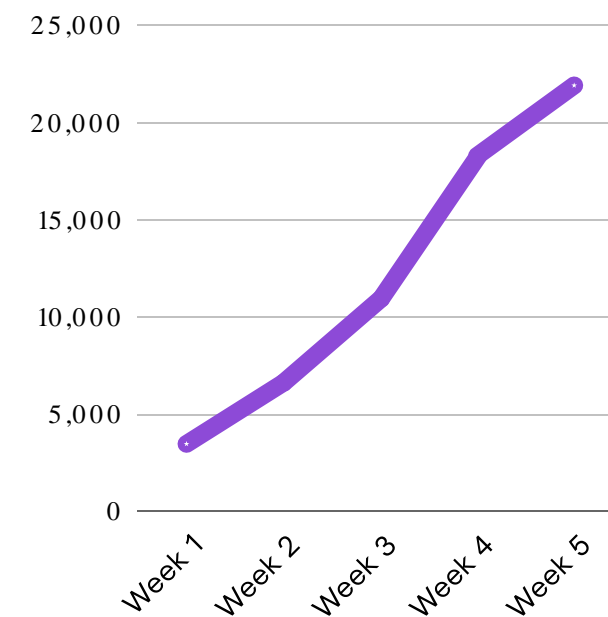
integrated analysis

infodemic insights

AI tools sometimes spit out irrelevant analyses that are not useful for public health action.



Sentiment analysis

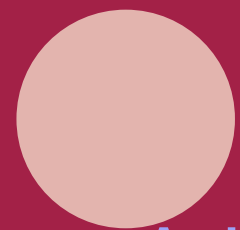


Reach metrics



Hashtag tracking

The reason these don't make sense is because they were built for commercial brand promotion.



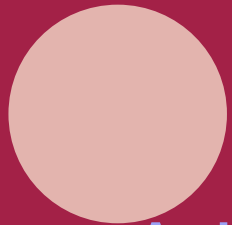
Additionally...

social listening
integrated analysis
infodemic insights

Dashboards consisting of socio-behavioral indicators that are more than 3 weeks old are less useful for action.



Sufficient subnational or population or community-specific analysis is rarely available to understand vaccine hesitancy.



Additionally...

social listening
integrated analysis
infodemic insights

Social Listening Report on COVID-19: Vaccine trends and rumors in WCAR October 2022

These trends and posts have been collected via CrowdTangle, Talkwalker, Facebook, and Google Trends for the past month of October in 2022. Compiled by UNICEF/WCARO Social and Behavior Change (SBC), WCARO. Email: jacob@unicef.org

LATEST TRENDS AND SUMMARY OF DISCUSSION FOR THE WCAR REGION:

Sentiment: The negative sentiment in Covid-19 vaccine conversations has increased by 57% over the past month to almost 39%. The conversations tagged as having a neutral sentiment were 47%. The share of positive sentiments positively influenced sentiment in the entire WCAR. This month they did not campaign as extensively, thus the general negativity in social media posts has returned. The sentiment percentages can only be moved via the efforts of influencers, bloggers and online SBC and External Communication activities. Thus, online allies need to be cultivated and nourished to change the tide of vaccine negativity.

Gender: The gender gap represented in the Covid-19 conversation reflects the social and economic inequality of women that limits their access to both technology and social media, which in turn limits their social media "voice". The percentage of the conversation driven by females is 28% compared to males at 72% percent. This is important on key gender related issues like vaccine trials and menstruation (page 8).

Mentions and Engagement: Conversations about Covid-19 in the WCAR region have remained steady during October with engagement (shares, comments, and reactions) at 108 thousand and 54 thousand mentions. This month an alphabet soup of new variants were announced and alerts have been the subject of numerous posts. **Subtopic - Vaccine Related Issues:** The subtopic most discussed in online news and social media remains safety of the vaccine (33%). Both safety and efficacy could be considered drivers of uptake and amounts to 61% of analyzed subtopic conversations this past month. The topic of **access to the vaccine** (20%) and **availability of the vaccine** (18%) is also important to consider that both access to the vaccine, thus unfulfilled expectation, may present a barrier some WCAR countries, thus unfulfilled expectation, thus unfulfilled expectation, thus unfulfilled expectation. The three Covid-19 vaccine uptake and routine immunization. The conversations around the topic of **cost** (8%) represents a smaller percentage, but nevertheless cost (direct and indirect) represents a disincentive. The issues related to operationalizing health systems to provide access and logistics related to operationalizing health systems to provide access and logistics.

54.1K (+32.3%)
108.1K (+4.3%)

Africa Infodemic Response Alliance
A WHO-HOSTED NETWORK

AIRA Infodemic Trends Report
September 19 (Weekly Brief #39 of 2022)

CDC's State of Vaccine Confidence Insights Report
Routine Immunizations on Schedule for Everyone Report
November 10, 2022
Date Range: August 1, 2021 - August 10, 2022

Centers for Disease Control & Prevention,
COVID-19 Response, Vaccine Task Force
Vaccine Confidence & Demand Team, Insights Unit

The findings and conclusions in this report are those of the author(s) and do not necessarily represent the official position of the Centers for Disease Control and Prevention (CDC).

health
REPUBLIC OF SOUTH AFRICA

STAY SAFE
NDP

South Africa Social Listening and Infodemic Management Report
22 August 2023, Report #89

This is the weekly RCCE Social Listening and Infodemic Management trends report on COVID-19 vaccine and other health emergencies, tracking and responding to public concerns, sentiments, rumours, and misinformation in South Africa. It provides key trends and analysis of online and offline content. Thanks to all contributors to this weekly report.

KEY TRENDS | COVID-19

New COVID-19 strain. This week saw a high volume of COVID-19 related calls and enquiries following the publicity of the new COVID strain, EG.5 SARS-COV-2 Subvariant and the announcement of the rollout of the COVID-19 vaccination of the 5-11-year-olds with immune-compromised conditions. This includes the following enquiries:

- Can you confirm what was reported today on current news about a new COVID variant which is easily transmissible to those who have not vaccinated for COVID-19?
- Is it true that a new variant has been detected in the country and do we need to worry?
- In so as the latest variant of the EG.5, where do we stand as a country? I haven't seen much surveillance data thus far.
- I see reports of EG.5 that have been recorded in SA, is this true and is this a cause for concern?
- So, quiet on all the info coming out worldwide about the negative effects & even deaths related to the COVID-19 vaccine?
- Have our politicians all kept up to date with their vaccines, all triple boosted? Better get them their 4th shot.
- Please I lost my contact number and I need to download vaccine certificate; can you help me to update this contact please?
- Where can we find the latest figures for active cases of COVID-19, please? Also, who is tracking sequelae and developing diagnostic processes to determine SASSA grant eligibility for post viral chronic illness as disability?

COVID-19 treatment. There are trends and sentiments associated with the FDA approval of the Veklury (Remdesivir) for COVID-19 treatment in patients with severe Renal Impairment, including those on dialysis. The online conversations about this being the first approved antiviral treatment that can be used across all stages of renal diseases, provides insights into the public's attitudes and opinions, based on their publicly available online interactions. [View](#)

The following are some of the expert views:

- "People with kidney disease and other severe chronic medical conditions are at higher risk for more severe illness" [View](#)
- "People on dialysis can have weaker immune system, making it harder to fight infections" [View](#)
- "Older adults and people with kidney disease or other severe chronic medical conditions are at higher risk for more serious COVID-19 illness" [View](#)

The misleading sentiments on social media are:

- "I hear Veklury has been authorized on 12th July by FDA for covid on patients with renal failure. It is another name for Remdesivir and people are not aware"

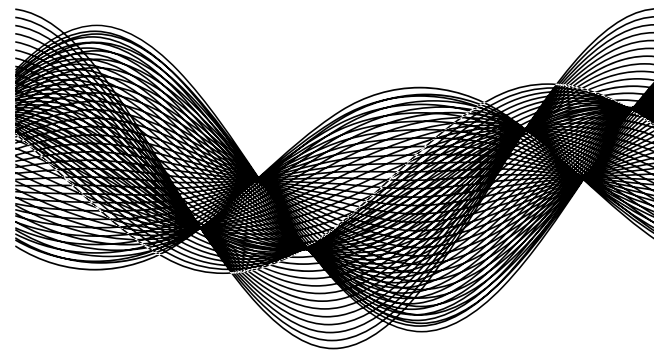
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Health-related challenges of the information environment require a change in our evidence generation and analytical practices



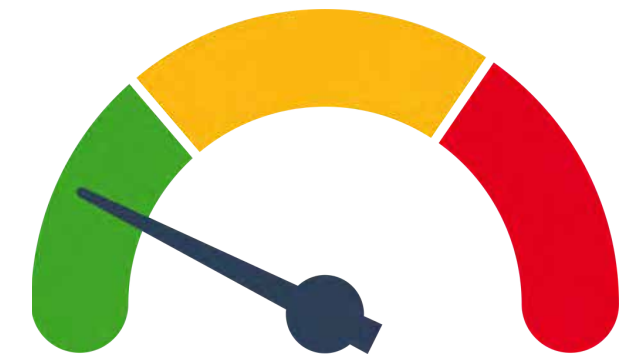
Speed, context and directionality

- Prioritize speed over precision
- Triangulation of data sources
- Characterization of insights in context and direction of change is more useful than descriptive analysis



Method and reproducibility

- Data source assessment for quality and relevance
- SOPs for analysis and reporting



Aimed at action

- Analyzing insights with a risk matrix - not all narratives are potentially equally harmful to health
- Analyze only narratives and behaviors that health authorities can do something about.

Infodemic insights analysis and reporting



TOOLS



Includes:

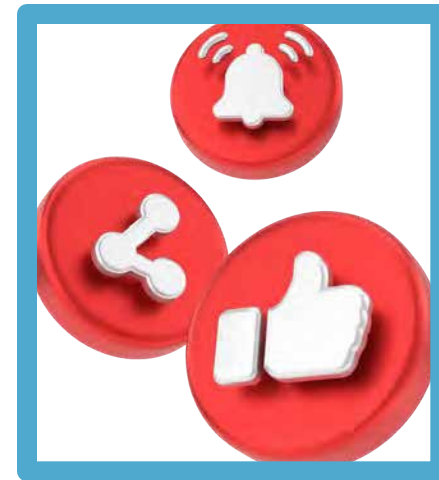
- Manual
- Editable templates
- Workbook
- Teaching simulation
- eLearning modules
- Annex with emergency, outbreak response and immunization resources



What kind of challenges can developing infodemic insights solve?



Answer programmatic questions on why there may be a gap between health guidance and behavior



Monitor change in conversations and sentiment in a population



Investigate anecdotal reports that misinformation or concerns are causing vaccine hesitancy



Understand information seeking behaviors of individuals



Identify information voids where misinformation may take root

Six steps to build an infodemic insights report

- STEP 1**  Choose the question
- STEP 2**  Select and plan analysis for data source s e
- STEP 3**  Conduct an integrated analysis across data sources
- STEP 4**  Develop strategies and recommendations
- STEP 5**  Develop an infodemic insights report
- STEP 6**  Disseminate and track actions taken



STEP 2 

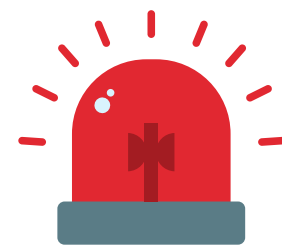
Identify and select data sources and develop an analysis plan for each data source

health behaviours and downstream health system effects related to this topic

people's questions, concerns, information voids, narratives, and circulating mis- and disinformation



Health systems and routine health data



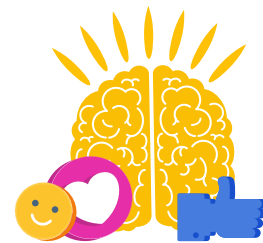
Emergency response



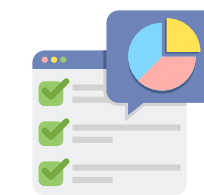
Society and community



Health system communications



Sociobehavioral data



Research



Digital environment and user behavior



Media



Conduct an integrated analysis across data sources

Risk assessment to aid in prioritization of narratives requiring action.
Context-specific.



low risk

Narrative does not:

- apply to population
- have widespread circulation
- provoke strong or emotional reactions
- have evidence of negatively impacting health behavior.



medium risk

Narrative has some:

- application to population.
- modest amplification/ message adaption
- evidence of provoking strong or emotional reactions
- anecdotal evidence of negatively impacting health behavior.



high risk

Narrative has widespread:

- amplification/ message adaption
- strong or emotional reactions
- evidence of negatively impacting health behavior.



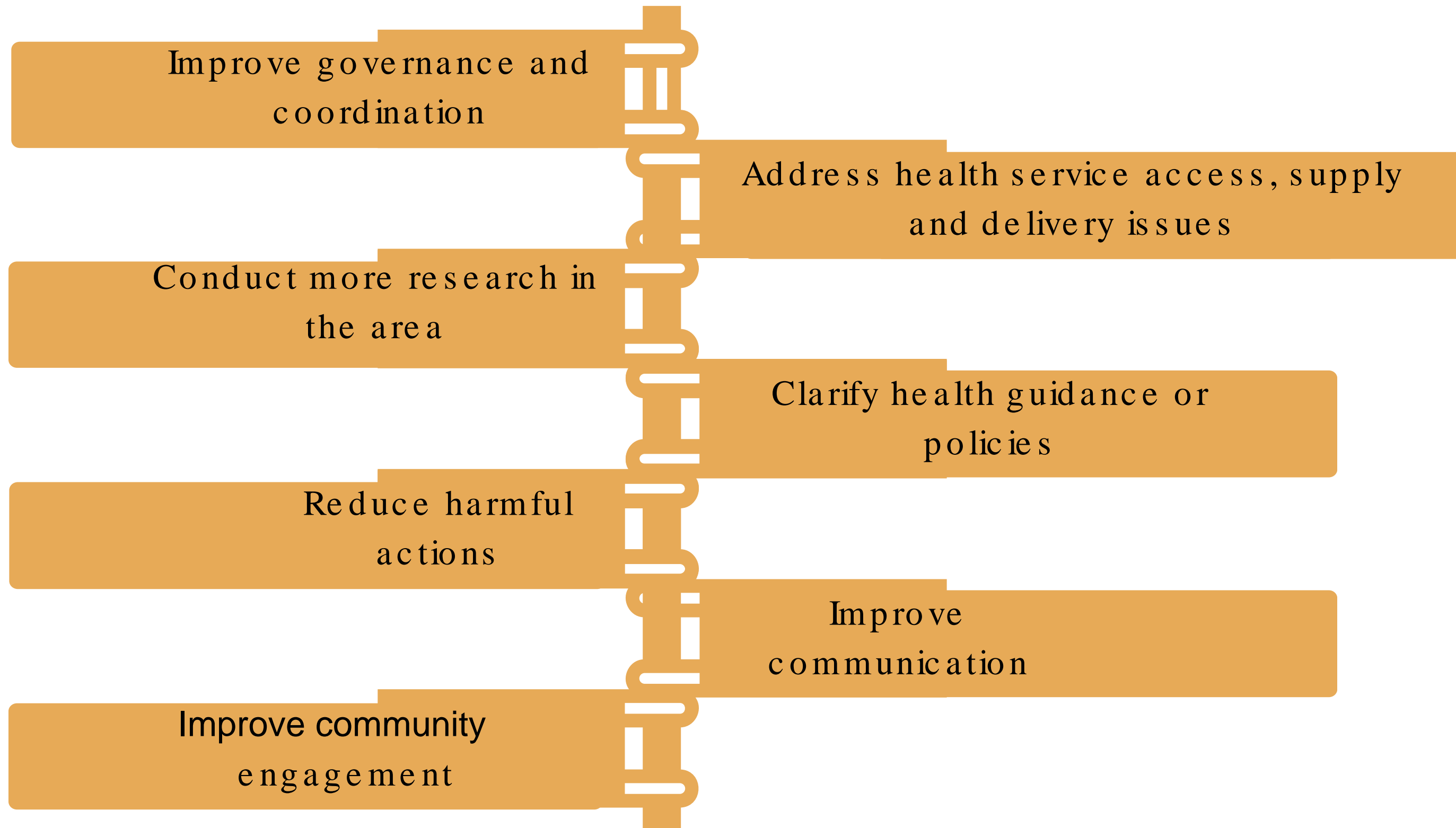
positive sentiment

Rare, but:

- pro-healthy behaviors are encouraged
- trust in health systems or government is reinforced
- adherence to health guidance is encouraged.

STEP 4 

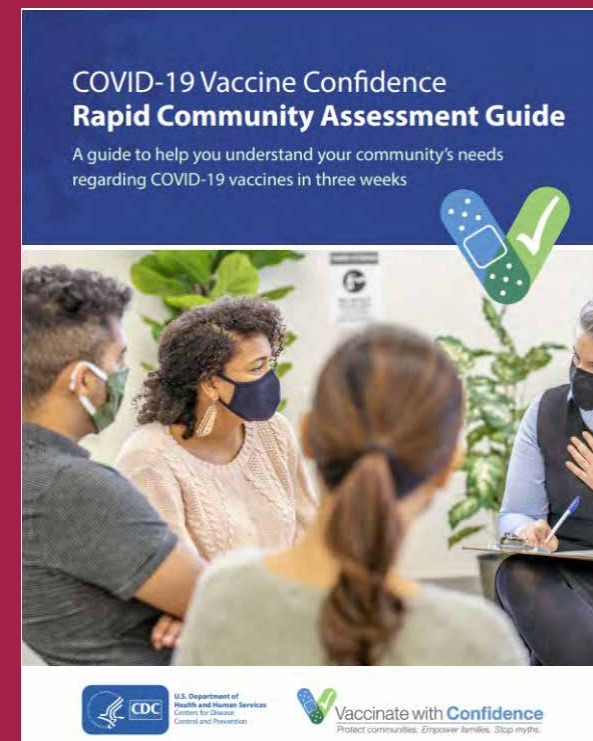
Develop strategies and recommendations



Other tools that might be helpful



TOOLS



Rapid community assessment tools can also include information environment components. See US CDC's RCA toolkit and addenda for adolescents and digital spaces.



Digital anthropology puts the community experience at the center of analysis of the information environment.

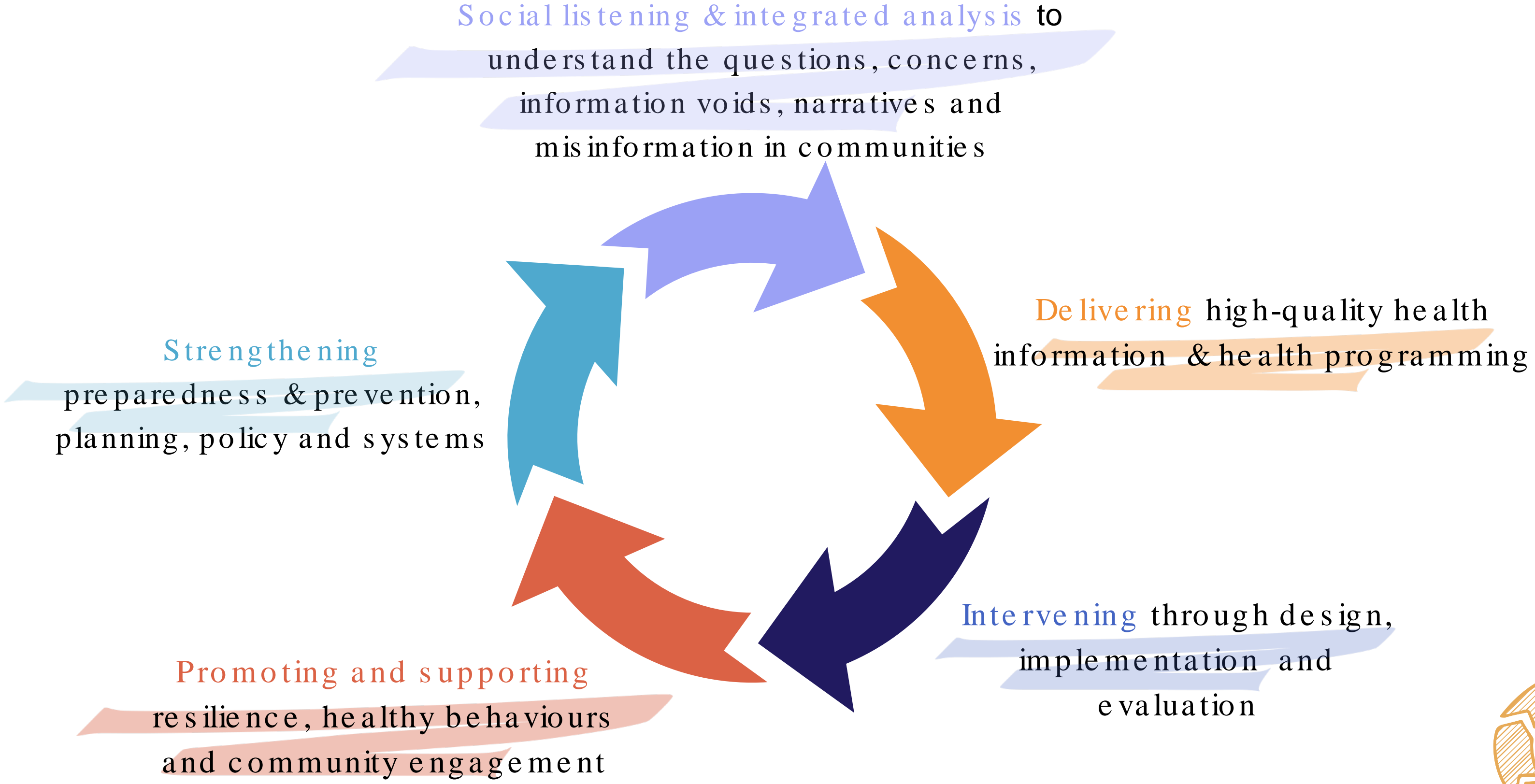


TOOLS



At the end of the day, a
human analyst is needed
to integrate and
interpret insights, and
derive
recommendations.

Better evidence is needed to mitigate how the information environment impacts health outcomes.





Thank you
very much!

tinapurnat.com



Resources on infodemic
management