# Welcome to Samorog





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## Samorog at a glance





## Samorog at a glance: geography & society



- Samorog is a middle-income country with a bucolic series of 26 islands off the coast of Elnor in the Narwhal Ocean.
- Switching from mainly agrarian culture to heavy investment in education, tourism and services.
- Tension among family farmers and large industrial multi-national farming operations.



## Samorog at a glance: tourism & society

- Globally renowned foodie destination: national dish is tamarind-spiced chocolatesmothered grilled chicken.
- Current efforts are to boost tourism to the islands and ramp up food exports as Samorog emerges from the COVID-19 pandemic.
- Tourism Minister is announcing campaign of the first 100% organic travel destination.
- The country has several ethnic groups, including the Cheels, the Ploks, and the minority community, the Plef. The Plef have historically experienced discrimination and have worse health outcomes than other populations. However, a decade ago, efforts to increase economic opportunities for the Plef has encouraged investment and training of Plef-owned small businesses in farming.



## Samorog mascot: Biscuit

The tourism "birdbassador" for Samorog is a Giant Samorog Blue chicken, named Biscuit, a beautiful blue and green-tailed rooster.

His 23-year-old owner hand-raised him on Big Island on a small family farm.

He loves biscuits and has had his antics captured on social media platform SmashSmash with 3 million followers.





## Samorog at a glance: communications

- The leading social media channel, similar to Facebook and WhatsApp with ability to publicly post content to an online feed and have private group chats, is WassapShare, used most commonly among all countries in the region.
- WassapShare is used by the general public, but the new video-based platform SmashSmash, similar to Tiktok, attracts a younger user base that emphasizes video posts with music clips.
- SmashSmash also has "disappearing" content and strong privacy settings that allow for anonymous sharing of content. The most popular search engine in the region is Smoogle.



### Samorog at a glance: health system & epidemiology 1

- Low COVID-19 immunization, coming from island mentality of "it doesn't happen here," and shipping and supply chain disruptions have affected all sectors, including healthcare and agriculture.
- The health sector has experienced high burnout and working to switch from pandemic response to restoring routine healthcare, including routine immunization.
- Routine disease surveillance systems have been weak. Worrying reports of polio being detected in wastewater in the city of Veena from a sample in August have prompted plans for a national catchup campaign for polio and measles and rubella, planned to start Dec 15 targeting all children under 5. The last time Samorog had a polio case was in 1999 and few people remember what a polio case looks like or what the consequences of infection can have on a child.
- There is a large urban-rural divide in attitudes toward public health guidance. In rural areas, COVID-19 restrictions and ill-timed vaccine mandates have led to popular protests against government meddling and widespread circulation of conspiracy theories of promotion of "unnatural cures for unnatural events" by multinational corporations exploiting Samorog. In urban areas, higher fatality from COVID and higher reliance on global trade and travel have led to higher compliance with COVID-19 restrictions and higher vaccine uptake.

### Samorog at a glance: health system & epidemiology 2

- In March 2022, a scandal involving faulty COVID-19 test kits, expired COVID-19 vaccines, and embezzled social protection funds for elderly people and feeding programs in schools within the government has led to the Minister of Health being fired and the Minister of Social Protection being taken to court on charges of fraud. A new Minister of Health has since been appointed, a surgeon with little public health experience.
- Rural communities, especially in small islands, experience access barriers to healthcare, including access to vaccines, which has led to a major decline in vaccination coverage of more than 30% since before COVID-19.
- Reports surface in early January that family farmers are experiencing an epidemic among chickens in several rural districts which is killing off their stock - but it's kept quiet by local authorities to prevent government interference, as the Plef especially has historically had adverse experiences with government.



## Instigating Event

- On September 24, Biscuit falls sick after acting very strangely, having difficulty walking and keeping balance. After his owner rushes him to the best veterinary hospital in Samorog's capital of Veena, other reports surface. Adults who are working on chicken farms develop mild flu-like symptoms but younger family members who have been infected have been hospitalized. The Ministry of Health reacts strongly and steps over district leadership to enforce culling of thousands of chickens from farms on Big Island and instigating travel restrictions similar to COVID-19, which has led to furious protests from farming communities. There are worries that travel restrictions will impede commerce between islands.
- Rumors start to swirl that the combined polio-measles campaign is a cover for administering a new experimental flu vaccine against the influenza affecting birds. The Ministry of Health is dealing with twin challenges of addressing bird flu and ensuring a successful immunization program at a time when popular trust in government is sinking.

## Your role in Samorog



#### **Current Priority**

Ministry of Health colleagues are worried that between COVID-19 pandemic fatigue, the growing threat of avian influenza, and low vaccination coverage especially in rural areas that the upcoming measles-rubella-polio campaign will have difficulty achieving 95% coverage among children under 5.

#### Your Task

Conduct an integrated analysis to develop infodemic insights for the Ministry of Health on conversations about vaccines and avian flu to help the immunization program and emergency response better prepare for the upcoming combined immunization campaign and avian flu outreach effort.



## Applying the 6 steps of infodemic insights report development to help Samorog address their infodemic

- We will walk through the 6 steps of the analysis process
- For most of the questions:
  - Discuss with your group, fill in the table or vote on slido
  - 5 min plenary to discuss the results



You will receive updates and information from Samorog via this WhatApp group – please join now:



MOROS NOROS

https://bit.ly/Samorog-Annecy2023

Hint: use your phone or go to web.whatsapp.com

## Samorog example and the "real world"

- Note that due to the short length of time of our session today, we have pre-digested some key data for you in the simulation
- A "real world" infodemic manager would be given far more complex data to work with and some of the outputs you will see would have been the result of several days and team meetings worth of work
- In the "real world" data can be of poor quality, lead to conflicting observations and conclusions, and an infodemic manager would also look for "missingness" to identify what is not there, which can be highly relevant to parsing a complex information environment with imperfect tools and data sources



#### 6 steps to build an infodemic insights report



- Step 1: <u>Choose the question</u> that infodemic management insights could help answer
- Step 2: <u>Identify and select data sources</u> and <u>develop analytic plan</u> for each data source
- Step 3: <u>Conduct integrated analysis</u> across data sources
- Step 4: <u>Develop strategies</u> and recommendations
- Step 5: Develop an infodemic insights report
- Step 6: Disseminate the infodemic insights report and track actions taken



### Step 1: Choose a question of concern to investigate

You want to answer a **specific question that helps address a particular health challenge** that is affected by the information environment.

Make sure you choose a question that is going to be **relevant for public health action**. You need to **define the population and the information-related perception or behavior** that you want to better understand.







### Step 1: Choose a question of concern to investigate

DO

- Make sure you define your population in the question of concern.
- Choose a topic that has experienced change to allow for directionality in analysis (e.g. investigating a spike in demand for antibiotics despite recommendations against antibiotic use for a current outbreak pathogen).
- Identify the gap that you're trying to address in the question of concern (e.g. questions are being asked that suggest confusion about recommended public health guidance).
- Ask a question that can be addressed by public health interventions.



- Choosing very broad questions that are difficult to answer and too general to inform public health action (e.g. how many pieces of misinformation are there about bananas causing COVID-19?).
- Trying to investigate issues related to the reputation of your organization, because this is not the objective of infodemic management (though it is the job of your external communication team).
- Attempting to investigate individual behaviors, because infodemic insights look at the population level.



## Step 1 - INFO DROP #1

- A colleague in the immunization program office has already begun pulling together background documents to get your team up to speed about the situation in Samorog.
- They kindly compiled key information from the following sources
  - Ministry of Health draft immunization campaign demand strategy
  - Avian flu sitrep from WHO Samorog country office
  - Routine immunization status report from Samorog Ministry of Health Immunization Program



## Step 1 - INFO DROP #1

#### Page 4





## Step 1 - Question 1:

• We have chosen a question for you that will be the prompt for the insights report:

"What are the main questions, concerns, circulating misinformation and behavior that different communities in Samorog have related to the avian influenza outbreak and how it may impact vaccine uptake during the immunization campaign?"

Review all the data currently available to you. Identify what information is relevant to the question above. Discuss with your group - **5 min** 



#### Step 1: Templated "starter" questions to tailor to your question

- Despite widespread availability of [service] and strong recommendations for people in [population/community] to receive [service], why is [population/community] still not taking up the service?
- What questions or concerns do [population] have about [disease] infection and prevention measures?
- How did the misinformation narratives about [misinformation] circulate within communities and affect perceptions of [health intervention]?
- How well do [population] understand the changing guidance about [health topic]?
- What concerns do religious leaders and religious communities have about [health topic]?
- How are people hearing, sharing and reacting to [news development about health topic]?
- What alternative cures, treatments, or preventives are being discussed, marketed or sold to a target audience? How is this affecting people's perceptions and health behaviour related to [pathogen/health topic]?
- What are the values or reasons that people in [community] are raising in their discussion of [health topic]?
- What emotions and reactions are associated with the latest major event related to [health topic] online?
- What offline actions in response to [health topic] are being advocated for by [community]?
- Which communities are adjacent to the community where the harmful narrative on [topic] is spreading? How are they responding and reacting to it?
- How is [narrative/meme/piece of misinformation] changing and evolving over time, and how is it appearing in different communities and what responses does it generate?



# Step 2: Identify and select data sources and develop analysis plan for each data source

Who is monitoring or tracking people's questions, concerns, information voids, narratives, and circulating mis- and disinformation?

Who is tracking health behaviours and downstream health system effects related to this topic?





#### Potential data sources on people's information behaviors...

Health System Communications

Hotline call log

Email/chat queries

**Press inquiries** 

Patient feedback surveys

Other formal feedback mechanisms

NEWS FEED Dever 1 areas Digital environment & user behaviour

Website analytics

Search trends

Social media monitoring

**Discussion forums** 

Other digital data sources

Society & community

Media monitoring

Feedback from community events

**Opinion polls** 

Mobility data and reports



#### ... potential data sources from the health system





### Use a taxonomy for social listening

- for automated data analysis for social media
- in integrating data across data sources

A taxonomy is a system of classification or structure.

A taxonomy for social listening is not the same as for epidemiology:

- People don't talk in medical terms about their questions, concerns and fears
- The majority of conversation online is done in memes, emojis and video

#### Using a **public health** taxonomy will allow you

- to align your search strategy
- to capture breadth of conversations
- to identify structure and changes in narratives



### Use a public health taxonomy for social listening



#### **Objective:**

Monitoring millions of conversations related to a **health topic** 



Concentrate **search within thematic categories** relevant to public health response



#### The subtopics are to:

- Capture breadth of conversations
- Help identify structure and changes in narratives



#### Remember...

#### THERE IS NO PERFECT DATA SOURCE

It does not need to be representative of an entire population to be useful



GOOD PRACTICE



Choose at least 3 data sources per population of focus!



#### Limitations of a data source





## Step 2 - INFO DROP #2



Current mobile subscriber base

Cockadoodledoo Telecom **Coverage and Mobility Report** 

> **RCCE WORKING GROUP** 5 ((

Community rumor log tracker for September 2023

Frequency of rumor reported indicated in brackets | \* indicates a new rumor not previously reported

Rumor 3

ernment is estricting

Dominant Loca

Language

District

Categorization

Notes



Summary of National KAPB Survey **Results on Behavioral and Social Drivers of Vaccination** 

Nationally representative telephone survey (n=1,452) conducted August 15-17, 2023. Published August 23, 2023.



Ministry of Health of the republic of samorog

Media Monitoring Report October 12-18, 2023

verall Media Mentions

47 mentions of "Ministry of Health" in print and digital press



#### Ministry of Health of the republic of samorog Web Analytics Report Sept 1-28, 2023

#### www.ministryofhealth.gov.sam

- 787.391 hits
- 58.2% bounce rate
- Average pageviews per session: 3.4
- Most popular pages:
  - Home Page
  - COVID-19 Vaccine Locator
  - Avian Flu FAQ
- Job Opportunities
- Measles-Rubella Vaccination Recommendations

- Most common inward-bound Smoogle search terms:
  - ministry of health
  - COVID-19 vaccine
  - avian flu samaroq
- immunization schedule
- Most popular social media platforms for sharing website content:
  - SmashSmash (top pages: Avian Flu FAO, COVID-19 Vaccine Locator)



Publ

Report issued by the Samorog Foundation for Health on nationally representative poll of Samorog citizens (48% Cher

unicef 🥴 for every child

Monthly social listening report on vaccine topics

Compiled by UNICEF Samorog Country Office SBC Team October 15, 2023. Content sourced from English-language social media posts.

Smash and WassapShare data

#### **Smoogle Search Trends**

Report prepared by the Samorog Health Tech and Factchecking Alliance for Time Period of Sept 1-28, 2023

Analysis focused on health topics of concern identified by Ministry of Health, including: measles, avian flu, COVID-19 and routine immunization. Smoogle captures 93% of all search volume in Samorog. However, Plef-language search volume too small include in any analyses.

Search 



Breakout Cheel-language searches

# Step 2 – Assess relevance and decide to use it or not – 10 min

- Use the table pages 6 to 9 to organize your thoughts and fill out the last two columns about relevance to the question and whether you choose this specific data source
- Decide on 5 data sources from full list
- Note the data source characteristics, which will be important for your data analysis later on

Data source	Agency and officer's role responsible for data source	Data source description	Data source assessment and quality	Relevance to infodemic insights question	Choose this data source for integrated insights analysis? Y/N
Samorog Trust Index	Samorog Foundation for Health	Nationally representative poll conducted on an annual basis on topics of current interest; published on September 1, 2023	Robust methodology and data collection methods; publicly available; independently funded by a non-partisan public interest research organization; only a		



# Step 2 – Question : Which three data sources will you exclude?

- a. Samorog Trust Index
- b. Social media listening report on vaccine topics
- c. Media monitoring report
- d. Smoogle search trends
- e. KAPB survey on COVID-19 vaccination attitudes
- f. Rumor tracking log
- g. Ministry of Health web analytics and chatbot stats
- h. Cockadoodledoo Telecom coverage and mobility report



### Limitations of relying only on a rumor log

- the representativeness of the data,
- how fresh it is (when was it collected?)
- the quality of how it is updated and maintained, and possible to reproduce
- was it collected online, offline?
- directionality of narratives or overall conversations that are taking palace in communities?
- might miss positive developments or narratives that could be leveraged

Place rumors into context of the wider conversation about a topic Encourage triangulation and integrated analysis of multiple data sources



### Step 2: Key takeaways

- Choose your data sources carefully so they match your analytical capacity and skills (consider analytical burden).
- Carefully consider the ethical aspects of choosing and analyzing a data source.
- Try to use as many routinely collected data sources as possible.
- The strength and breadth of your relationships dictates the type of data-sources available to you. Make new friends, build new partnerships, even during emergencies.
- Infodemic insights complement other types of health and data analysis. Infodemic insights should not be a quick fix for a lack of field or desk research, but instead complement longer-term and routine data collection, analysis and use. Data sources that you develop through insight development can become part of routine health information systems.



### Time to run after your data source providers!



Look for the colleagues that can provide you with the five data sources you have selected.

They are in the room!







Compiling data source intelligence								
Data source	What questions do people have?	What concerns do people have?	What information voids are there? (people can't find information they are looking for)	What are the narratives circulating on this topic? (explanations for motivations and reasons for current state)	What mis- and disinformation are circulation on this topic?	What other beliefs or behaviors do people have on this topic?	Other relevant observations	Summarize the theme/gist in one sentence



Below are the broad categories of risk that make up a risk assessment matrix. Each matrix should be customized according to country and program context.



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:

- relevance to population
- amplification/ message adaption
- strong or emotional reactions
- evidence of negatively impacting health behavior



Rare, but:

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



#### 10 min

Identifying major themes across data sources and intelligence and prioritizing by risk					
Major Themes	Theme emerged in what data sources?	Overall, what level of risk should this			
		theme be assigned?			



Step 3: Key takeaways

- **Developing themes in integrated analysis is a team sport.** You will need multiple types of professional fields involved to successfully analyze diverse data sources.
- You want to create a reproducible analysis process. This means developing robust SOPs and training new analysts and team members for consistency and quality assurance.
- Identify narratives and themes that you can support with evidence.



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### Step 4: Develop strategies and recommendations



## Step 4: Ensure strategies are effective

#### Impact-effort matrix

• Short and medium-term actions

- Feasible
- Evidence-informed



## Step 4: Common pitfalls to avoid



Defaulting to communicationsrelated recommendations

Not engaging communities

Not providing evidence and recommendations that would improve health service delivery, including through policy & guidance



## Step 4 – Develop your recommendations!



Theme title	Risk assessment level (low, medium, high, positive)	Recommendations for action
Fill in this tabl	le JD	
You will find it on th WhatsApp group	e	

20 min



## Step 4: Key takeaways

- When developing risk assessments, just like when developing epidemiological risk assessments, **consider vulnerable groups first.**
- The epidemiological risk assessment considers time, place and person. An infodemic manager considers the following:
  - **Time:** How fast is the narrative spreading
  - **Place:** How many different platforms or channels are involved?
  - **Person:** How many different communities, especially vulnerable communities, are involved?
- When developing recommendations, involve subject matter experts to ensure appropriateness and feasibility of strategies.

#### Step 5: Develop an infodemic insights report Step 6: Disseminate the infodemic insights report and track actions taken

Outline of the infodemic insights report

- Executive summary (bottom line up front)
- Explanation of purpose of insights report
- Major themes with recommendations for action
- Persistent themes
- Provide updated recommendations
- Methods



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#### Other components that may appear in an insights report may be

supporting materials

points of contact

links for addressing specific infodemic issues



#### Steps 5 & 6: Major themes and recommendations for action

#### Gist of important themes or intelligence

Directionality & risk assessment for theme

Community or stakeholder involved

Platform / data source

Questions, concerns, information voids, narratives and circulating mis- and disinformation

Confusion/gaps between official guidance & reactions

Illustrative, anonymized example

#### **RECOMMENDATIONS FOR ACTION**



#### Steps 5 & 6: Methods section of the report



#### Analytic method used



Narrative or table of data sources, and relevant links and information



Explanation of risk matrix



Statement of limitations



Date and post permalink



Steps 5 & 6: Disseminate the infodemic insights report and track actions taken

Improve distribution of the insights report by:

- Offering insights in a variety of formats
- Promoting subscriptions to updates
- Presenting insights at regularly occurring meetings where operational and programmatic decisions are made
- Embed insights into existing communications products and channels
- If appropriate, publish insights reports online for the public and other stakeholders to access

Track action taken by identifying and following up with report focal points and identify and record any related recommendations, actions taken, and any measures or associated outcomes.



## Step 5 & 6: Key takeaways

- **Be scientific and evidence-based in writing infodemic insights reports.** Be conservative in your language and don't talk past the evidence.
- Write for your audience. Focus on what insights are most relevant for them and would help them do their job more effectively. You may need to train staff who are new to this space on how to understand and utilize infodemic insights.
- Focus on informing short and medium-term actions. In emergencies, speed
  matters in infodemic response, and so your reports should be as rapidly developed
  as possible with practical actions to be useful.
- **Build on what you learned.** Every time a report is published, understanding how people use it and getting their feedback on how to improve it, can help make the next report more useful.



Last question: Could you see an infodemic insights report like this adding value to your work? If so, how might you leverage such reports in the future?

• Give you individual answer on Slido

Sli.do #samorog







### Infodemic insights report examples



#### 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). Questions/comments can be sent to Johary Randimbivololona, Social and Behavior Change (SBC), WCARO. Email: irandimbivololona@unicef.org

#### LATEST TRENDS AND SUMMARY OF DISCUSSION FOR THE WCAR REGION:



Sentiment: The negative sentiment in Covid-19 vaccine conversations has increased by (9%) over the past month to almost 39%. The conversations tagged as having a neutral sentiment were 47%. The share of positive sentiments stood at 14% this month. Last month the Africa Youth Partnership 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 stant on key gender related issues like varrine trails and menstruation (nage 8)



Mentions and Engagement: Conversations about Covid-19 in the WCAR region have remained steady during October with engagement (shares, comments, and reaction) 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 (38%). The second most discussed topic is efficacy of the vaccine (23%). Both safety and efficacy could be considered drivers of uptake and amounts to 61% of





Many Ministries of Health, WHO and UNICEF regional and country offices and CSOs publish regular infodemic insights reports



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#### OpenWHO course

on the infodemic management channel about

how to develop

an infodemic insights report



openwho.org/courses/im-insights-report

#### OpenWHO course

on the infodemic management channel about

how to develop a taxonomy for social listening



https://openwho.org/courses/im-taxonomy

#### **OpenWHO course series on the infodemic management channel**



E P I D E M I C & P A N D E M I C P R E P A R E D N E S S & P R E V E N T I O N





#### • Infodemic management 101

- Infodemic management: developing an infodemic insights report
- Infodemic management: addressing health misinformation
- Infodemic management: using human-centered design good practices
- Infodemic management: designing strategies and using the toolbox
- Infodemic management: social marketing and message testing methods
- Infodemic management: defining a taxonomy for social listening
- Infodemic management: working effectively in the field



openwho.org/channels/infodemic-management

#### Subscribe to the WHO infodemic management news flash

Mastering the metaphor



ZZZ before FWD – or: rest before you share



What predicts misinformation-sharing behavior?



Infodemic Management News Flash

Friday 03 March 2023 | Issue #51



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# Thanks for riding in Samorog with Biscuit today!!

