Issue 1
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IOA Field Exchange

Integrated Outbreak Analytics (IOA)

Partnership under **GOARN**

In this issue

Case studies from

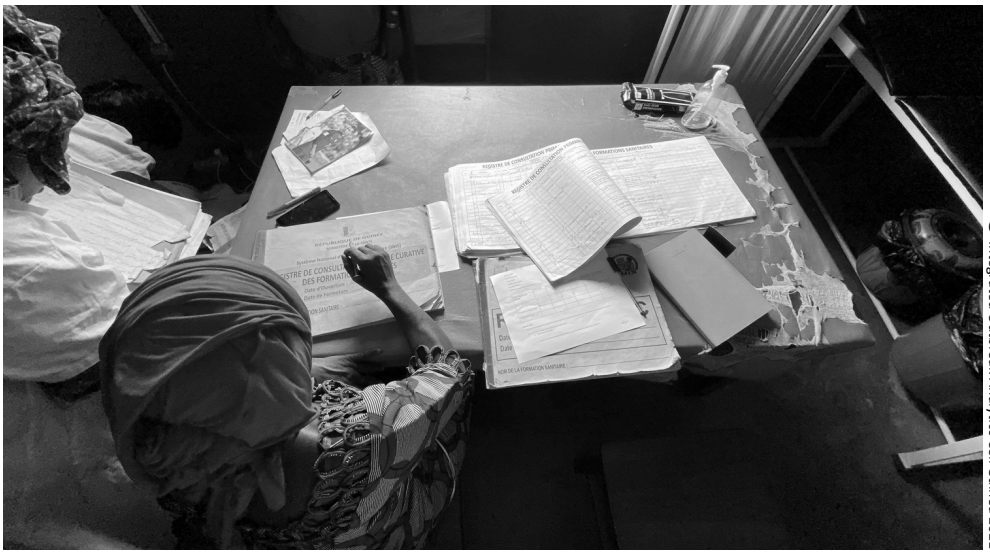
1. PERC (Africa regional/country)
2. Royal Holloway University
3. Mercy Corps (Haiti)
4. Cellule d'Analyses Intégrées CAI (DRC)

The IOA Field Exchange

The aim of the IOA Field Exchange is to share Integrated Outbreak Analytics (IOA) initiatives and experiences from across the world, at different levels, to facilitate dialogue between and learning opportunities for individuals and organisations working in IOA. We aim to highlight the benefits of IOA to public health emergency response and evidence-based decision-making but also to discuss the realities of IOA in practice, the challenges and lessons-learned. IOA will always vary context to context and we respect and encourage that diversity.

IOA is not a standardized methodology but rather an approach, a partnership, a better way for using evidence. This means, remaining flexible to the country, context and partners working in IOA and supporting the various mechanisms and mixed methods, different available datasets and multiple disciplines that are available, for a context-specific understanding of an outbreak's dynamics to better support the Ministry of Health (MoH) and their partners in response.

Applying an Integrated Outbreak Analytics lens to COVID-19 Vaccination

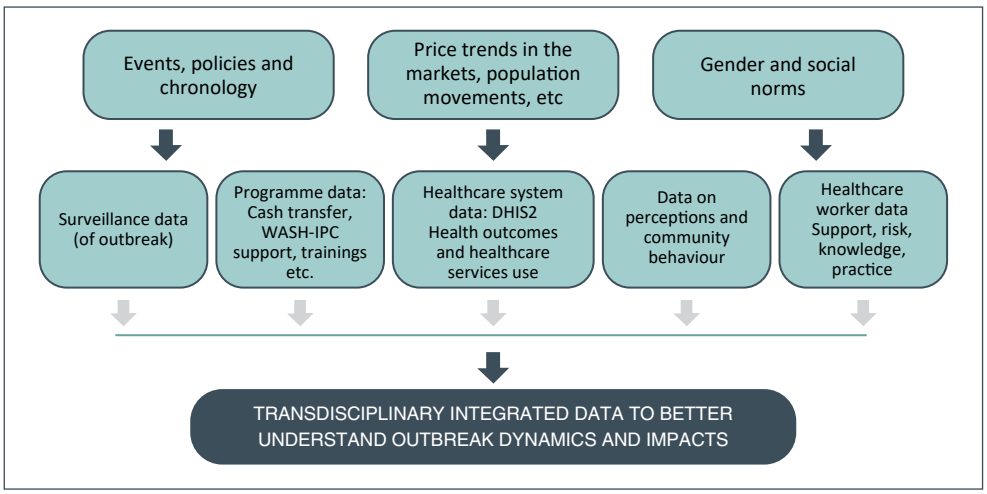


IOA teams looking at patient registers to understand impact of Ebola on healthcare services use, IOA Cell Guinee 2021

Integrated Outbreak Analytics (IOA)

Integrated Outbreak Analytics (IOA) applies a multidisciplinary approach to understanding outbreak dynamics and to inform outbreak response. It aims to drive comprehensive, accountable, and effective public health and clinical strategies by enabling communities, and national and subnational health authorities to use data for operational decision-making. IOA embraces a holistic perspective of outbreak dynamics throughout: from the research questions to the data that are collected or accessed, to the interpretation of results and the recommendations that follow (Figure 1). In addition, IOA promotes co-development of evidence-informed recommendations by including communities, civil-society, local and international Non-Governmental Organisations (NGO), United Nations (UN) agencies as well as different actors and partners within Ministries of Health (MoH).

Figure 1. Examples of key data sources that achieve two primary objectives of IOA



Vaccine hesitancy and acceptance: why this misses the whole picture

Vaccine uptake is not simply a case of acceptance by communities, but rather a more complex web of decision-making steps. Accessibility of vaccination centres (distance, time, cost, opportunity cost), vaccine availability (supply, staffing, cold chain, equipment) and acceptance (social factors such as personal beliefs, community (family/friends) beliefs and proximity to or perceived risk of a disease) all play an important role in the decision to get vaccinated.

Stand-alone or global-level perception surveys lack contextualisation and may not be representative of all communities. These surveys often ask: 'would you accept a vaccine if it was offered to you'. But being able to hypothesize is linked to education, age, risk perception and awareness, limiting many individuals from responding. Additionally, there are no specifics in the question e.g. if the vaccine was approved by your government, available in your local healthcare facility, free to access, easily accessible etc. Often there is no understanding of how much information the respondents have received, their perceived proximity to the disease, their perceived cost-benefit analysis of vaccination or very real barriers they may encounter, such as undocumented individuals who may be afraid of having to give a name and address, or frail elderly people who cannot easily travel to a vaccination centre. In the context of COVID-19, where socio-economic impacts have demonstrated decreased use in routine healthcare services, a respondent may be prioritizing the cost of getting their child vaccinated over their decision to take the COVID-19 vaccine.

Instead, such surveys should rather ask: 'What are your concerns regarding the vaccine (thus opening a safe space for people to express their concerns and ask questions) and what do you need (information, services, other) to consider the vaccine'.

How IOA can help to untangle the issues contributing to vaccination uptake?

As we recognise that vaccination uptake is context-specific, IOA can help us better and more holistically understand the factors which should be considered for adapted and appropriate vaccine programming. IOA starts at a local level, gathering data from local sources. IOA will gather surveillance and epidemiological data and compare against the timelines of policy events such as vaccine availability or how community mobilization for vaccine uptake has been conducted. Positive and negative trends in vaccine engagement or uptake can be analysed against local qualitative data regarding access and availability, healthcare data on services availability, pre-existing routine vaccination use, training and support to healthcare workers. Data should be analysed against event timelines (policy changes, programme adaptations and response initiatives) which may extend beyond the country (e.g. decisions in one country can influence both individual and policy decisions in another). All this data should be considered within socio-economic contexts, contexts of displacement, gendered dynamics and social norms.

An IOA lens can help differentiate between the various factors that contribute to low uptake, so that a local response can be targeted and comprehensive. There is never one single solution and even within the same population, individuals may not vaccinate for different reasons, or make different decisions for different vaccines. Vaccination programme strategies need to be data-driven, community-centred, and context-specific.

Training on data collection for healthcare worker surveys, IOA Cell Beni 2021

1 https://preventepidemics.org/covid19/perc/

Preparing for COVID-19 vaccines in Haiti: Mercy Corps' approach to community-led and data driven responses.

Judes Jonathas, Senior Program Manager, Mercy Corps Haiti; Nicole Grable, MPH, Social and Behavior Change and Public Health Consultant, Mercy Corps COVID-19 Technical Response Unit

Context

The same factors that contribute to Haiti's high mortality rates from natural disasters make it equally susceptible to the grave impacts of a pandemic. Poverty, food insecurity, lack of sanitation and clean water, lack of health infrastructure, limited resources for health, limited access to epidemiological data, political division and densely populated slums controlled by gangs make facing COVID-19 and prioritizing vaccine acceptance an immense challenge.

In spring 2021, the government was in discussions with COVAX about receiving vaccines. However, misinformation was rampant and vaccine confidence was low. Mercy Corps, who have supported the Ministry of Public Health and Population (MSPP) since the initial COVID-19 response in spring 2020, explored vaccine engagement using an integrated outbreak analytics (IOA) approach.

Data analytics

Reliable data are extremely limited and can be challenging to access in Haiti. We utilized a variety of data sources including MSPP's epidemiological and health outcomes data, Mercy Corps LAVE project findings from spring 2020[1] and vaccine acceptance data from community-based assessments[2] and community feedback[3] in MSPP target areas. Analysis was disaggregated by gender and geography.

Key findings

We identified low trust in traditional media outlets and distrust in government related to their response which affected trust in the vaccines overall. There was low agreement to vaccination and worries related to not knowing where the disease or the vaccines came from or the effects the vaccine will have on their body; fear of death after vaccination; and fear that the vaccine manufacturers were looking for 'guinea pigs' to experiment on. Not having access to reliable information and circulating misinformation was exacerbating distrust. There were also outstanding questions related to COVID-19 overall including concerns of different blood types or racial groups being more susceptible to COVID-19; who to call in an emergency, where treatment and testing centers were located, the most serious symptoms and when a person should seek treatment.

Response

In response to our findings, we created a multi-faceted approach at the national and community level. At the national level we updated COVID-19 and vaccines content for a national hotline which included Krik Krak messages, a traditional call and response storytelling approach, quizzes and survey questions. Responsive content was created leveraging insights from co-creation sessions with community members. In addition to the hotline, we worked with digital influencers to share content widely.

At the community level we led nearly 100 community leaders through a human centered design (HCD) collaborative workshop and COVID-19, misinformation and vaccines training. The process enabled them to develop hyper-focused and context-specific engagement strategies that they would then implement. We also led them through a content / message co-creation process using WHO and MSPP content to design localized information that would be more accepted in community. We leveraged skills training on interpersonal communication, group discussions and role play exercises to ensure the leaders felt equipped to carry forward discussions in community. One hundred community leaders ultimately reached nearly 20,000 people through community dialogues related to COVID-19, prevention behaviors and vaccines.

Lessons learned

When raising awareness for vaccines, it is important that we use a mechanism to have discussions. The exchanges, questions and answers, and clarification allow people to process information and gain deeper learning, it also builds resilience to future misinformation, especially when people have been exposed to high amounts of circulating mis- and disinformation.

Judes Jonathas facilitating training and human centered design activities in Canaan, Haiti. March 2021

1 https://viamo.io/newsletter-archives/covid19-response-update-10/
2 Mercy Corps community assessment in Canaan, Bas Ravine, Jerasulem, Petite-Anse (N=220, March 2021).
3 Mercy Corps community feedback during community leader training sessions and ongoing dialogues.

© Mercy Corps

A community leader reviewing the co-created risk communication and community engagement framework in Canaan, Haiti. March 2021

"Now we know what Corona is and look at all of these post-its and the work is amazing - this is us."
Canaan Participant

Combining diverse data to highlight underlying causes of low vaccine take-up and testing for COVID-19: a UK case study

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(This article presents a summary of the research methodology and findings presented in full in this report: https://pure.royalholloway.ac.uk/portal/files/42084849/COVID_19_in_Slough_Final_Report_V2.pdf)

In late 2020/early 2021 incidence of COVID-19 in Slough, a town in South-East England, was considerably higher than the national average, reaching a peak of more than 1000 per 100,000 in a single week in January 2021. Cases were particularly high in the over-65 age group and those aged 17-24, and were proportionately higher in communities classified as Black and Minority Ethnic (BAME) than in those classified as White British (75% of cases, compared with 64% of the population). Slough Borough Council commissioned Royal Holloway, University of London (RHUL) to investigate the reasons.

The research conducted by RHUL integrated existing data sets on local and national COVID-19 incidence rates, vaccination and testing uptake, housing density, employment and deprivation levels, with a social insights survey conducted by in late 2020. Layered on top of this was primary data from field observations, focus groups, surveys and key informant interviews. Participatory research included 'Community Champions' (community representatives, who conducted informal social listening in their communities[1], reported issues back to the council public health office through an online platform, and received support with generating messages and answering queries to disseminate back to their community). COVID-19 Community Officers and staff at a lateral flow testing centre were shadowed during their daily duties. Surveys were conducted with test centre users and the Community Champions.

At the time of the consultation, Slough had several neighbourhoods in the lowest deciles on the UK's Index of Multiple Deprivation (IMD, see Fig 1)[2]; the UK's 7th highest level of people (8.4%) claiming unemployment-related benefit and the 5th highest rate of workers (16.8%) 'furloughed' on the UK Government's Job Retention Scheme[3]. This suggested a high level of income precarity, which usually goes hand-in-hand with high levels of

1 https://sentione.com/resources/social-listening
2 http://www.sloughboroughcouncil.net/council/joint-strategic-needs-assessment/deprivation.aspx
3 https://www.centreforcities.org/data/uk-unemployment-tracker/
4 Clark, I., 2019. Informalisation in Work and Employment: A Permissive Visibility or Another (Hidden) Inequality? *In Inequality and Organizational Practice* (pp. 199-219). Palgrave Macmillan, Cham

workers employed in gig or grey economies, which is known to make compliance with safety regulation, access to sick pay and other in-job benefits challenging (Clark et al, 2019)[4]. The town had three times the UK national average of multi-generational households (13%) and a high level of Households of Multiple Occupancy (HMO),[5] suggesting very real barriers to social distancing.

Primary data collected from focus groups and surveys allowed assumptions made from analysis of the existing data to be quantified and tested. Surveys reported that 55% of respondents (in an online survey with Community Champions) knew people who were reluctant to test due to being unable to afford to take time off work if they tested positive. Focus groups further reported fears that taking a vaccine or a test recorded one's name and address and passed this to authorities, which disincentivised undocumented individuals as well as those concerned about housemates being prevented from working if they tested positive. Frail elderly people in multi-generational households without a car could not easily travel to vaccination centres; healthcare staff needed to go to them.

Vaccine concerns were largely not irrational: most could be addressed and very few were unfounded conspiracy or anti-vaccination. Concerns over vaccine ingredients challenging religious or ethical dietary restrictions were reported by 12.5% but 42.5% expressed concerns over how the vaccines could have been developed so quickly. This showed which concerns needed to be prioritised (Table 1).

The integration of these diverse data sets to dig down into the reasons for low uptake in cultural and geographic communities where incidence was high demonstrated how IOA can be used to identify the context-specific explanations for epidemiological trends in vaccine uptake.

Table 1: Challenges to COVID-19 vaccine uptake identified in Slough, UK

Underlying challenge	Range of data sources	Intervention
Frail elderly in multi-generational homes (especially without cars) cannot easily travel to vaccination centres	Data showing low vaccine uptake in older age groups but high in younger age groups within the same community; data on household occupancy; focus groups with Community Champions.	Healthcare workers to vaccine elderly in their own homes; vaccine centres kept open later to make it easier for working younger family members to assist/take elderly relatives "out-of-hours".
Working age residents in precarious jobs reluctant to test due to fear of losing wages	Data on percentage of furloughed workers; observations and survey at lateral flow test centre; survey with Community Champions; identified as a particular issue in multi-generational homes where one positive test may require several working adults to isolate.	Clear messaging that testing can be undertaken without registering name and address; anonymous testing available. Suggestion to provide emergency welfare provision (e.g. food bank access, energy payments) for precarious workers.
Concern over vaccine ingredients in groups with religious dietary restrictions.	Reported through Community Champions' social listening activities and in focus group.	Posters produced by Public Health England; images and language tested with Community Champions; placed in Halal-compliant food shops (see Fig 2).
Low trust in authorities amongst Afro-Caribbean communities fuelled by legacies of structural racism and exacerbated by 'BAME' distinction.	Data showing cases proportionately higher in some communities than others; focus groups with OneSlough and Community Champions reported higher hesitancy in Afro-Caribbean community; Key informant interviews explained mistrust legacies.	Suggested more sensitive use of ethnic distinctions in how data is presented – not 'BAME' and 'Other' or 'White British' and Other. Support trusted voices from within the community (e.g. Afro-Caribbean doctors).

5 http://www.sloughboroughcouncil.net/council/joint-strategic-needs-assessment/housing-and- homelessness.aspx

Fig 1: Information on levels of absolute and relative deprivation were considered alongside information on number of cases, percentage of furloughed workers, percentage of overcrowded housing, car ownership and distance to vaccination centres (Source, Office of National Statistics, UK Government).

https://www.ons.gov.uk/visualisations/dvc1371/#/E06000039

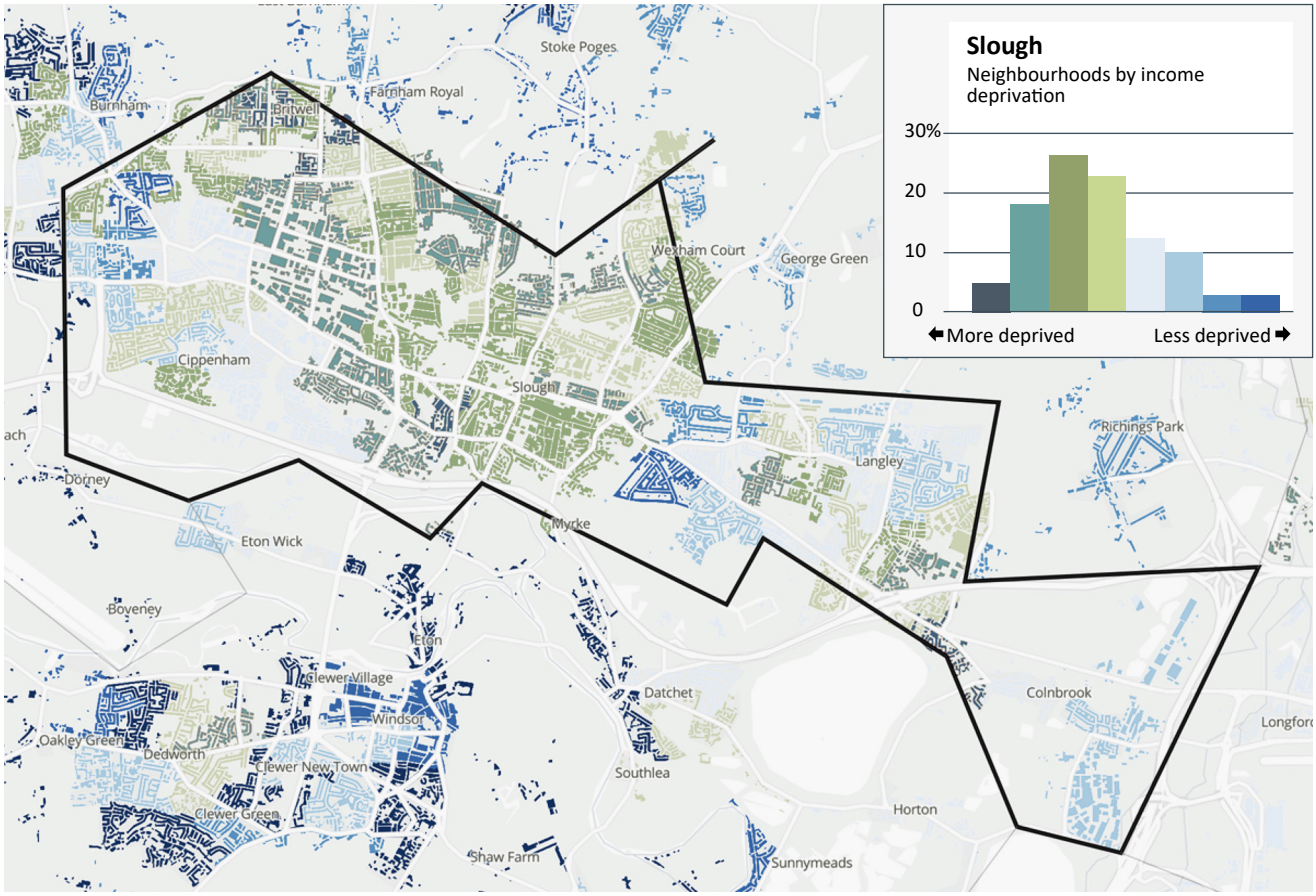

Fig 2: Concerns around vaccine ingredients that were in fact not prescribed by religious dietary laws were addressed by posters that were co-designed with the community and placed alongside dietary compliance information in food shops.

Poster on religious acceptability of vaccines, co-designed with OneSlough and Public Health England, available for download at: https://www.healthpublications.gov.uk/ViewArticle.html?sp=Scovid19vaccinationandramadanposterb

Vaccine Acceptance in Context: Results from the Fourth PERC Survey

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Robert Rosenbaum, MPA / Technical Advisor
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The Partnership for Evidence-Based Response to COVID-19 (PERC) has fielded four rounds of survey data and analysis between March 2020 and September 2021 to guide decision-making to reduce the impact of COVID-19 across African Union Member States. The public-private partnership collects social, economic, epidemiological, population movement and security data, and data on vaccine uptake, to help officials determine public health and social measures for COVID-19. PERC takes a similar approach to IOA, and works closely with the network in key countries, in ensuring multidisciplinary data is analyzed, with the appropriate audience in mind, to influence more holistic decision-making on preparedness and response strategies.

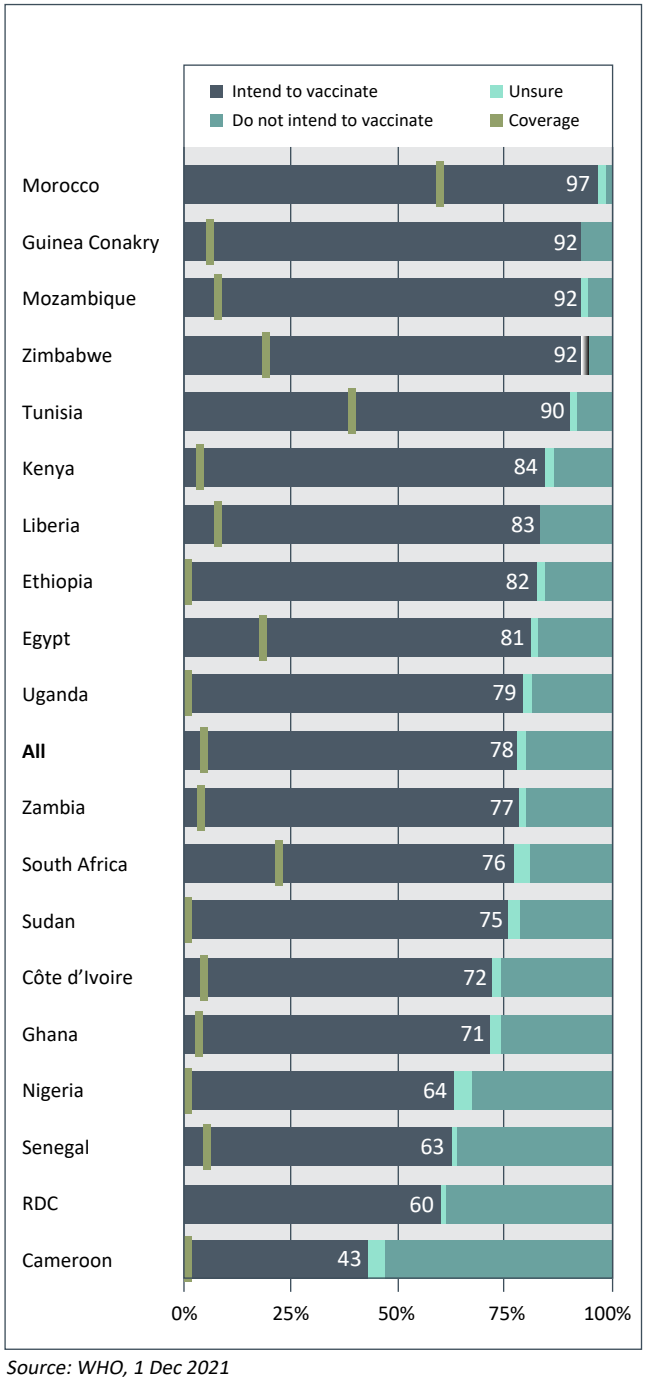
Despite unpredictable vaccine supply, slow roll-outs and generally low coverage across the continent, the latest PERC survey conducted in September 2021 found a high appetite for COVID-19 vaccination in African Union Member States: 78% vaccine acceptance overall, up from 67% earlier this year (country specific information can be found on the PERC website). However, vaccine acceptance-defined as either receiving at least one dose of a COVID-19 vaccine or planning to get vaccinated-varied widely between Member States (see Figure 1). Acceptance rates were influenced by respondents':

- Reported level of trust in the vaccine itself and in key people (e.g., the president) and institutions (e.g., Ministries of Health) and their handling of the pandemic
- Perceived risk of COVID-19 posed to themselves and their country
- Desire for information regarding COVID-19 and vaccines via trusted sources

Overall, more respondents who reported trust in government institutions' handling of the pandemic expressed vaccine acceptance (82%) compared to those who reported a lack of trust (66%).

The only two Member States that saw a decline in vaccine acceptance between February 2021 and September 2021—Nigeria and Uganda—also saw a decline in satisfaction with the government's pandemic response. However, there were exceptions to the positive relationship between such satisfaction and rates of vaccine acceptance, suggesting that other factors, including unpredictable vaccine supply and low perception of risk of infection may influence acceptance. Unpredictable vaccine supply—or even having too many vaccine products in country—can erode public trust in the health system generally. Further, it can undermine confidence in the vaccine itself, particularly in light of vaccine preferences driven by misinformation, expiration concerns and the politicization of particular donations. For example, some people may prefer one "brand" of vaccine over another based on opinions shaped by information (or misinformation), preventing them from getting vaccinated with whichever safe and approved product is available, and feelings about a particular country can influence individual attitudes toward donations.

Figure 1: Respondents' vaccine intentions compared to national coverage rates



Source: WHO, 1 Dec 2021

Hesitancy

Twenty percent of the survey respondents said they were not vaccinated and did not intend to get vaccinated. The top reasons for vaccine hesitancy were low risk perception of infection (24%), not having enough information about the vaccine to make a decision (22%) and lack of trust in the government (17%). In addition, the research found that reports of supply interruptions, product expiration and syringe shortages can erode public willingness and confidence in getting vaccinated. The reasons for low risk perception are complex but using trusted sources to offer people more and better information about COVID-19 generally and vaccines specifically, coupled with reliable vaccine supply, can help transform vaccine hesitancy into acceptance. Further, addressing misinformation should continue to be an important priority, although this wasn't reported as a major reason why people are vaccine hesitant.

There is also an opportunity to reduce vaccine hesitancy by making a connection between vaccination and safe work. Access to income was the leading concern of respondents across all surveyed Member States—more than half (55%) reported unemployment and access to work among the most concerning issues they currently face. Vaccine mandates for employees in the formal labor workforce were announced in Zimbabwe, Nigeria, Ghana, Egypt and Kenya, but these measures likely will not impact members of the informal workforce. More messages emphasizing vaccination as a way to work safely outside the home and protect vulnerable family members may help improve uptake in places without mandates.

Conclusion

There is a large gap between coverage and acceptance in almost all Member States. Nigeria, Democratic Republic of the Congo and Ethiopia—among the most populous Member States—have fewer than 5% of their populations vaccinated with at least one vaccine dose, while PERC data show acceptance is between 60% and 80%. Vaccine acceptance does not necessarily translate into getting shots into arms. Reliable vaccine supply and distribution support are critical, along with the strategic dissemination of vaccine information, misinformation management and addressing local, contextual factors posing barriers, to promote greater uptake.

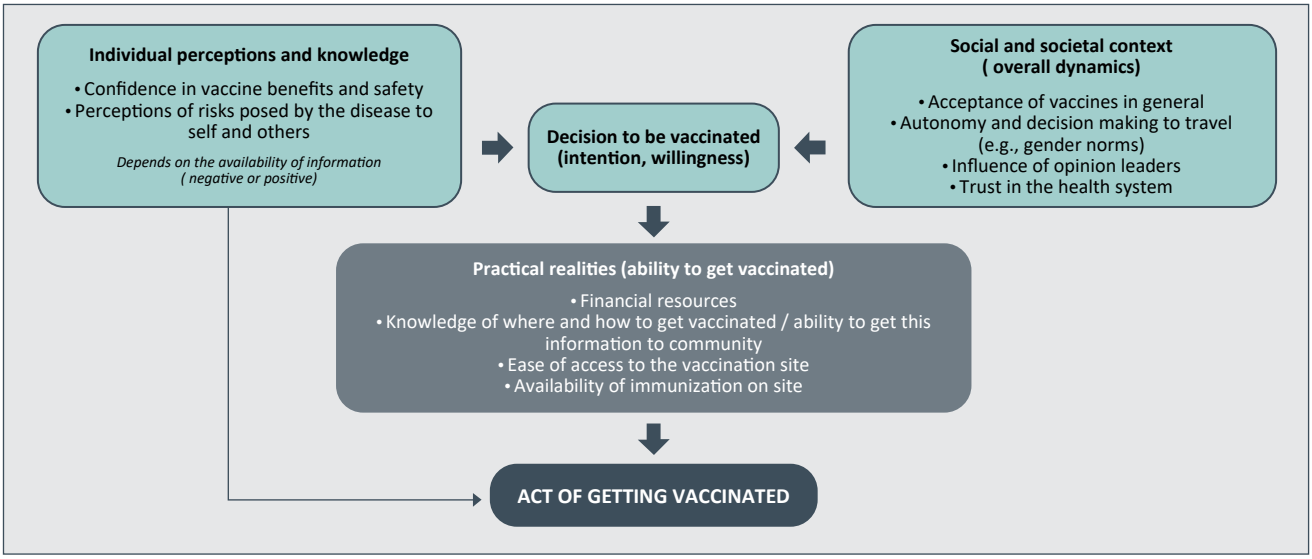
For more detailed survey results and analysis, please visit www.preventepidemics.com/covid19/perc.

Applying an Integrated Outbreak Analytics (IOA) Approach to the COVID-19 Vaccination in the DRC

Cellule d'Analyse Integrée (CAI), DRC
Simone Carter, Lead IOA UNICEF
Pia Huq, CAI officer UNICEF DRC

Through a cross-sectional and collaborative analysis, bringing together multiple data types and sources, the CAI applied an IOA lens to use evidence to advocate for more adapted, appropriate and integrated COVID-19 vaccination strategies in the Democratic Republic of Congo (DRC). The analysis sought to ensure that the multitude of barriers that many households face in accessing healthcare services, which during COVID-19 have increased, are considered in the strategies (and funding) for the COVID-19 vaccine roll-out.

The CAI started the analysis highlighting that decision-making for vaccination goes far beyond individual information and influencing factors are multiple and different for each individual, household and community (see Figure 1, adapted from the "increasing vaccination" model (Brewer et al., 2017[2]).



2 https://pubmed.ncbi.nlm.nih.gov/29611455/

We used multiple data sources and types to explore these potential influences on vaccination engagement. This included surveillance and epidemiological data to understand whether COVID was a national problem and considered a priority compared to other diseases. Ministry of Health (MoH) data indicated that only 7 of 26 provinces are still reporting COVID cases in DRC (in November 2021) and only 30 health zones had reported at least 1 case in the last 7 days. In comparison, some reports indicated that malaria had increased since COVID-19 and, for many provinces was having a greater health impact, killing nearly 10,000 children in 2019[3] (nearly 10 times the 1053 COVID-19 deaths reported to date[4]).

When analysing National Health Information System (SNIS-DHIS2) data, we observed a pre-existing issue of low service use prior to the start of the COVID pandemic. Only 35% of 12-23 month olds were fully vaccinated[5] prior to the Mashako[6] plan (to increase coverage) in October 2018, due to low availability of EPI vaccines. PERC survey data[7] found that, since COVID, approximately 50% households had difficulty getting medicines and approximately 30% households were skipping or delaying health visits. In addition, analysis of health service availability indicated disruption of services due to healthcare workers striking against delayed payments.

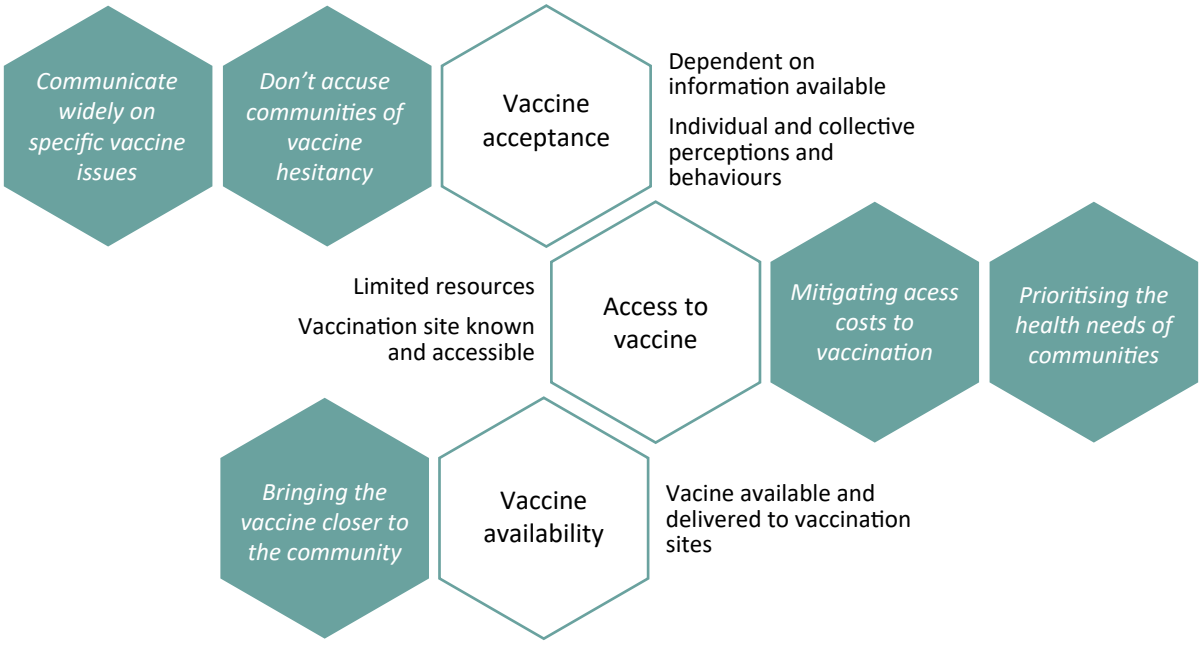
Data on individual perceptions indicated a low COVID-19 risk perception. Only 22% individuals in DRC believed their personal risk of being infected with COVID was high and only 40% believed their health would be seriously affected by COVID[8].

An analysis of events over time further demonstrated the fairly negative global information on the COVID vaccines being provided to the DRC. These included initial doubts about the safety of the Astra-Zeneca vaccine and the decisions of Western countries not to administer it to their citizens, non-recognition of CoviShield by the European Medical Association (EMA)[9], short expiration dates of the COVAX batches sent to the DRC and some expatriate staff receiving non-Astra Zeneca vaccine in the DRC.

Finally, analysis of the economic situation in the DRC showed an impact of the economic crisis caused by COVID-19 and its response measures. This has resulted in households with limited resources to devote to health, including access to pre and post-natal care and routine vaccination. Survey data across the country found that 94% of respondents expect the pandemic to have long term negative effects on their socio-economic status and that 62% of households in the country (78% in rural and 58% in urban areas) are now in debt[10].

A complete picture of the factors that influence COVID vaccination is needed in order to implement more efficient vaccination programmes. The decision to vaccinate is more than just vaccine acceptance. We need to consider vaccine accessibility and availability too (Figure 2). The focus should be on re-enforcing (all) vaccine supply for health actors at community level, improving access to health centres (such as reducing transport costs), addressing the reasons households are already missing healthcare services (and vaccines) and improving information availability and communications around COVID vaccines (availability, side-effects, eligibility, costs, 'fake news').

Figure 2: A more holistic understanding of vaccination uptake



3 https://www.rfi.fr/fr/afrique/20201130-rdc-l-%C3%A9pid%C3%A9mie-de-paludisme-a-progress%C3%A9-en-2020-%C3%A0-cause-du-covid-19
4 https://ourworldindata.org/coronavirus-data
5 https://mics.unicef.org/surveys
6 https://www.gavi.org/news/media-room/democratic-republic-congo-launches-major-vaccination-drive
7 https://preventepidemics.org/wp-content/uploads/2021/11/drc_fr_111821F.pdf
8 https://preventepidemics.org/wp-content/uploads/2021/11/drc_fr_111821F.pdf
9 https://www.schengenvisainfo.com/news/covishield-left-out-of-eu-travel-list-its-ceo-says-he-will-take-the-issue-to-highest-instances/#:~:text=The%20European%20Medicines%20Agency%20(EMA,passport%2C%20SchengenVisaInfo.com%20reports.
10 https://www.elanrdc.com/households-en

How is the CAI using this data?

Thanks to the multiple CAI partners who contribute their data and participate in collaborative workshops on the impacts of COVID-19 in the DRC, this analysis is being used to inform the vaccination campaigns organised by the MoH. For example, during COVID-19 vaccination campaigns, there will be simultaneous and committed investment to routine immunization for children. Parallel to the COVID-19 vaccination point and team, two dedicated routine vaccinators will be placed and operational out of the closest healthcare facility, so that parents, following getting their vaccine, will be encouraged and can more easily access the vaccinations required for their child. As well, payments for all vaccination workers (COVID-19 and routine) will be matched, so as not to reduce or negatively impact routine vaccination.

Cellule d'Analyses Integrées: The Integrated Analytics Cell (CAI) was set up in September 2018 during the 10th Ebola outbreak in Eastern DRC. It is an operational research unit in the Democratic Republic of Congo (DRC) that supports the Ministry of Health and all actors working in health emergencies by providing evidence to inform decision-making and improve interventions and strategies. The CAI uses an Integrated Analytics (IA/IOA) approach to explain issues and trends in epidemiological, programmatic and other research data, bringing together different actors and data sources to provide a more comprehensive understanding of outbreak dynamics and public health outcomes. The CAI works with civil society, local health actors, international and national NGOs and UN agencies for data collaboration and sharing. The aim is to facilitate use of different data sources, reduce duplication of data collection and support evidence-based health programming. The CAI is managed by Simone Carter in UNICEF. The article was written collaboratively with the different CAI partners.

2 https://pubmed.ncbi.nlm.nih.gov/29611455/

IOA objectives

1. To drive comprehensive, accountable, and effective public health and clinical strategies for outbreak management and control
2. To produce data from multidisciplinary perspectives that can rapidly and systematically inform operational decisions
3. To drive a holistic understanding of outbreak dynamics, and highlight the impacts of both the outbreak and response control interventions
4. To advance mechanisms and methods for relevant, useful, and rapid evidence-generation
5. To build, strengthen and scale-up sub-national and national, regional, and global capacity to conduct IOA
6. To provide support via field deployment, remote assistance (analytics/helpdesk), technical and normative guidance, tool development or dissemination and online trainings.

IOA is produced through partnerships and a multi-disciplinary community of practice (a network of agencies and organisations that work or are interested in working with this approach have come together under the Global Outbreak Alert and Response Network (GOARN)[2]). It is primarily a field-based initiative that leverages support from national, regional, and international experts to reinforce pre-existing local capacity. The IOA partnership welcomes all individuals, actors, agencies to contribute, learn and exchange in ways which are best suited and adapted to their needs.

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IOA Field Exchange is published quarterly and we invite you to contribute!

If you have an idea for an article or would like to write about your own IOA experiences, please feel free to contact us. The focus of the IOA Field Exchange is field experiences, how IOA contributed to the understanding of an outbreak or public health emergency, how it has been used to influence decision-making, or how IOA has been applied to improve community health outcomes.

We look forward to hearing from you.

To access other IAO resources:

Site web

YouTube

Graphic design and Layout: Chris Ngoma (ngobayis.ch@gmail.com), DRCongo

2 GOARN is a network of over 250 technical institutions positioned to respond to acute public health events. Established by WHO as a mechanism to engage the resources of technical agencies, GOARN partners have collective expertise in rapid identification, confirmation and response to public health emergencies of international concern (PHEIC).(7) Driving outbreak-related research and analytics to strengthen outbreak response is a key strategic objective of the GOARN network