



Digital Square Webinar: Private Sector Digital Adaptations for COVID-19 Response

April 30, 2020

Agenda

- Introduction and objectives (Skye Gilbert, Digital Square)
- DIAL (Kate Wilson)
- Facebook (Praveen Raja)
- Tableau (Neal Myrick)
- mClinica (Farouk Meralli)
- Microsoft (Brooke Loughrin)
- General Q&A (Skye to facilitate)

Objectives for this session

- Explore private sector digital adaptations at different points along the digital & data value chain
- Support the global digital health community in identifying collaboration opportunities

Introductions



Skye Gilbert, Digital Square



Neal Myrick, Tableau



Kate Wilson, Digital Impact Alliance (DIAL)



Farouk Meralli, mClinica



Praveen Raja, Facebook



Brooke Loughrin, Microsoft

Kate Wilson, DIAL



COVID-19 tools: What tech and data sources already exist that you can use today

dial Digital
Impact
Alliance

UNITED NATIONS
FOUNDATION

BILL & MELINDA
GATES foundation



USAID
FROM THE AMERICAN PEOPLE

Common questions that have ready solutions

Presenting three tools and people who can help you deliver response efforts



What software platforms and applications already exist that I can use in my COVID-19 response efforts?



How do I set up a messaging programs to quickly deliver messages to my whole population?



Can I access new data sources to find out how many people live in an area to predict where supplies will be needed



Can I access data to better predict where people are moving and trace disease spread?

Have you ever had to figure out ...?

Messaging Platforms: Getting critical health alerts to the whole population

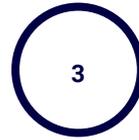
We simplified the process for groups that wanted to learn how to set up messaging so you can focus on your project needs and not on how the tech works.



Published instructions on how to work with Mobile Aggregators



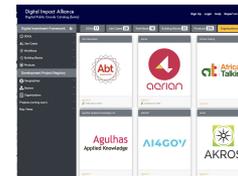
And provide guidance on which mobile channels will meet your needs



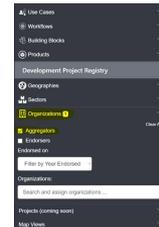
And detail how messaging platforms can be leveraged



Collected this data into an online catalog that maps global providers and their capabilities



and lets you drill down on which countries they serve. You then contact the group and get started



(<https://registry.dial.community/organizations>)

Contact Tanvir Singh Natt: tsinghnatt@digitalimpactalliance.org for free consults

Software Evaluation: Build from what already exists

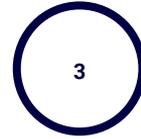
Working with Digital Square, we made it easier to find which products were already in use and could be optimized for COVID-19 response efforts via an [Online Catalog](#)



Mapped all digital tools that could be used by countries across sectors



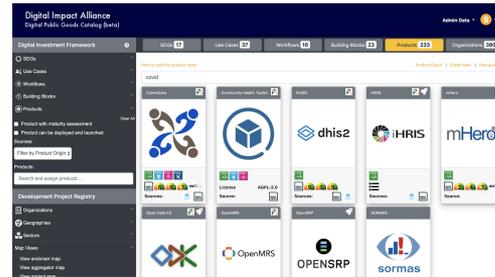
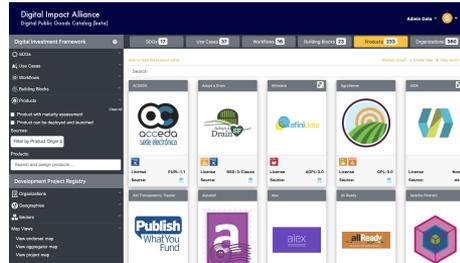
Developed an online catalog that shows available digital tools



Filtered it for COVID-19 products only



Educate donors on the Digital Principles and how these products link to procurement.



Principles for Digital Development

(<https://registry.dial.community/organizations>)

Contact Steve Conrad sconrad@digitalimpactalliance.org to learn more

Mobile Network Data: Get access to data insights

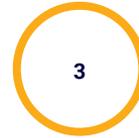
We bring together NGOs, governments and the private sector to answer COVID-19 questions



DIAL model in MWI TZA & UGA

OPAL used in COL & SEN

Flowkit used in GHA HAI NAM & NEP



Research shows which data is most useful from a CDR and its application to health

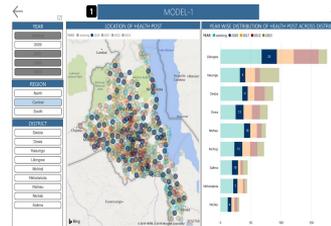
Set up relationships in specific countries for on-going data sources and responsible data polices.

Support the MOH and NGO to get on-going stream of non personal data. Used to predict where to place health response efforts, track mobility movements

Implementers working with governments and operators that you can contract with now

Example:

<https://youtu.be/pDgFTPJ5eVU>



FLOWMINDER.ORG

OPAL
open algorithms for better decisions

Infosys

DIAL's Ongoing Support to Aid COVID-19 Response





COVID-19 Resources and Contacts

Website: www.digitalimpactalliance.org

Online catalog: <https://registry.dial.community>

Principles for Digital Development: www.digitalprinciples.org

For more information, contact: info@digitalimpactalliance.org

THANK YOU

Praveen Raja, Facebook

COVID-19 Facebook Health Initiatives



How is Facebook
responding to
COVID-19?



Steps Facebook is taking to respond to the coronavirus

Prevention Health Information and Social Behavioral Change



Frontline Health workers & Health Systems



Containment & Epidemiology



Mental Health & Well-being

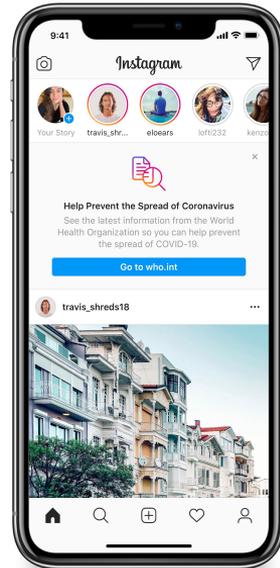
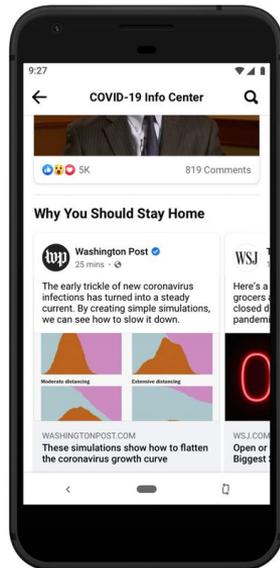
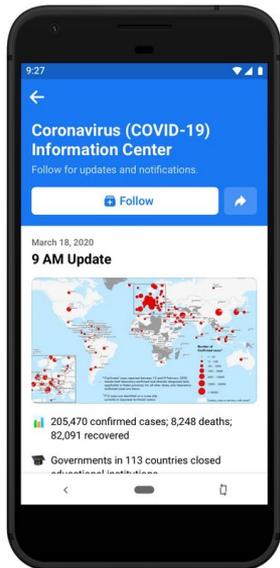
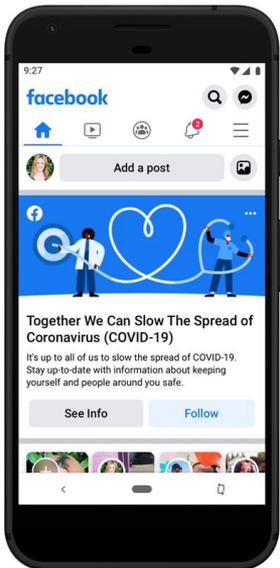
Coronavirus (COVID-19) Information Center

- Real-time updates from national health authorities and global organizations such as the WHO, as well as helpful articles, videos and posts about social distancing and preventing the spread of COVID-19
- Follow the Info Center to receive updates from health authorities directly in News Feed
- Features to help people connect with local groups and ask for or offer help within their community



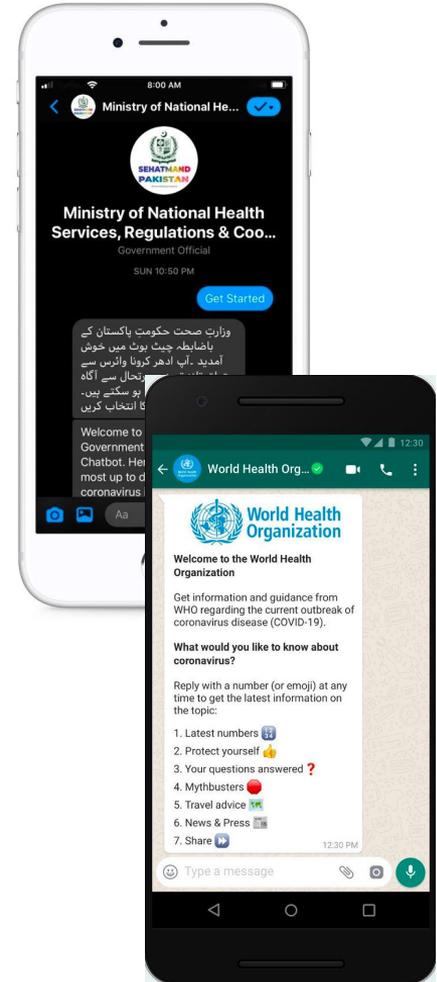
Coronavirus (COVID-19) Information Center

Over 2 billion people have received information from the WHO and other health authorities through our COVID-19 Information Center and educational pop-ups on Facebook and Instagram with over 350 million people clicking through to learn more.



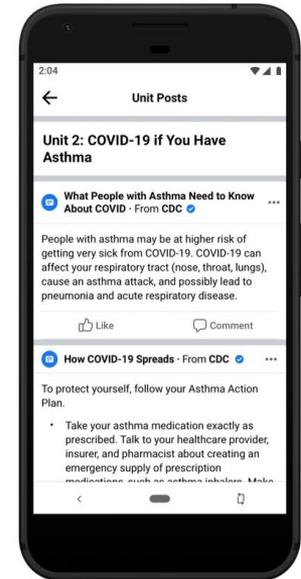
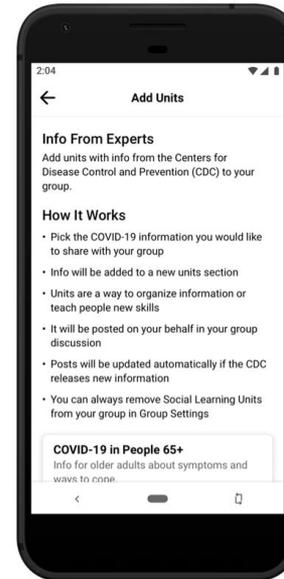
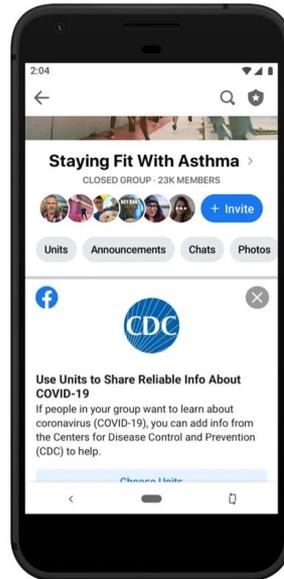
COVID-19 Chat Bots

- Government health organizations use Messenger to share timely information with local communities and speed up their replies to commonly asked questions with tools like automated responses
- WHO Health Alert answers common questions about COVID-19 and provides reliable information about how to prevent the spread of the coronavirus as well as travel advice, coronavirus myth debunking and more



Supporting health communities online and offline

- Supporting online COVID-19 related health communities / groups
- Prompt group admins to share authoritative content, e.g. Live broadcasts and curriculum on how to stay safe during outbreak
- 2000+ partners using Facebook local alerts



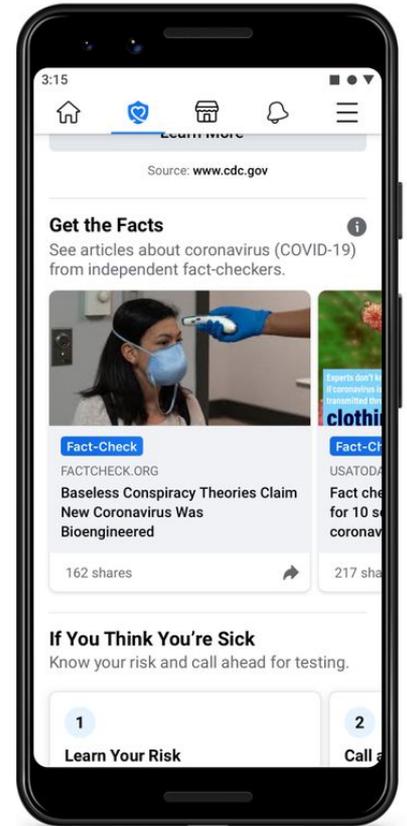


Stopping misinformation and harmful content

- Limiting misinformation and harmful content
- Banning ads for medical face masks, hand sanitizer, disinfecting wipes, and COVID-19 test kits
- Prohibiting exploitative tactics in ads

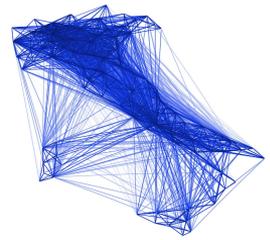
Limiting misinformation and harmful content

- **Fact-checking program:** Displayed warnings on about 40 million posts related to COVID-19, based on around 4,000 articles by our independent fact-checking partners. *When people saw those warning labels, 95% of the time they did not go on to view the original content.*
- **Removed hundreds of thousands of posts with harmful misinformation** that could lead to imminent physical harm, like “drinking bleach cures the virus” and theories like physical distancing is ineffective in preventing the disease from spreading



Data for Good -Disease Prevention Maps

Informs disease forecasting efforts & protective measures



Co-location maps

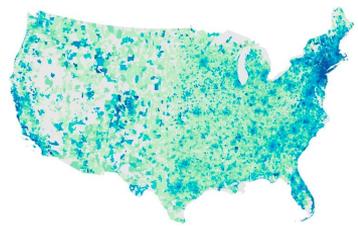
Movement Ranges in Brazilian States



*Based on average number of Bing Level 16 tiles visited each day by people with location history enabled. Changes are relative to the average values observed on the same days of week in February.

Movement range trends

Social Connectedness between US Zip Codes and East Village, NY (Zip Code 10003)

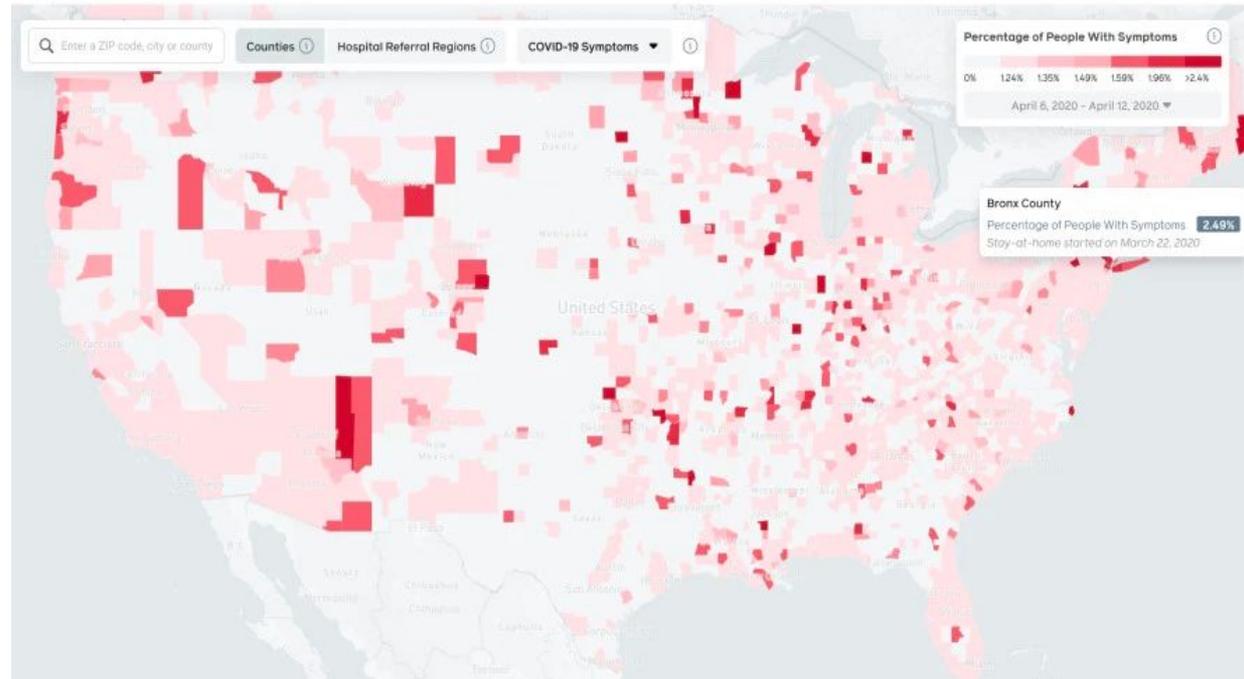


Rank by Connectedness
Bottom 10% 15-30% 30-45% 45-60% 60-75% 75-90% Top 10%

Social connectedness index

1 million responses in the US that correlate with publicly available data on confirmed cases, which suggests this **data can help predict where the disease will spread.**

Facebook & Carnegie Mellon University COVID-19 Symptom Map



COVID-19 Symptom Survey

Facebook AI

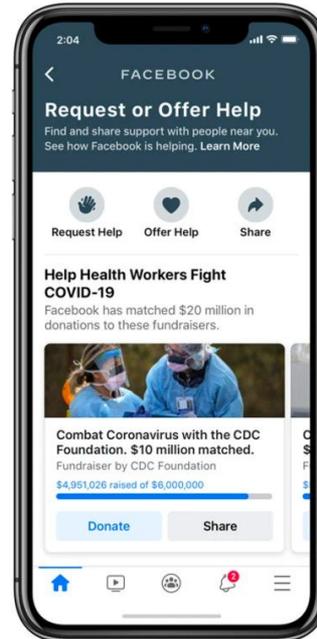
Improved COVID-19 forecasting and tools for resource planning

Facebook AI and New York University have partnered to create localized forecasting models of the spread of COVID-19.

- Facebook and Cornell University are using public data to model the predicted spread of coronavirus in New York
- NYU leverages this information in their models to estimate how progression of the disease will affect hospitals, bed and ICU capacity, and local demand for ventilators, masks, and other PPE needs at a hospital and county level.
- Facebook and NYU Langone Health's Predictive Analytics Unit are building hospital-specific forecasts for COVID-19, using reinforcement learning, causal modeling, and supervised/self-supervised learning techniques.
- These models, which learn from de-identified X-rays and CT scans, as well as other de-identified and aggregated clinical data to predict the number of patients whose condition is likely to improve or worsen in a given time period; how many people are likely to be admitted, transferred to ICUs, or discharged; and the number of ventilators, types of tests, and treatments that might be needed. Facebook AI is neither making nor recommending diagnoses for individual patients.

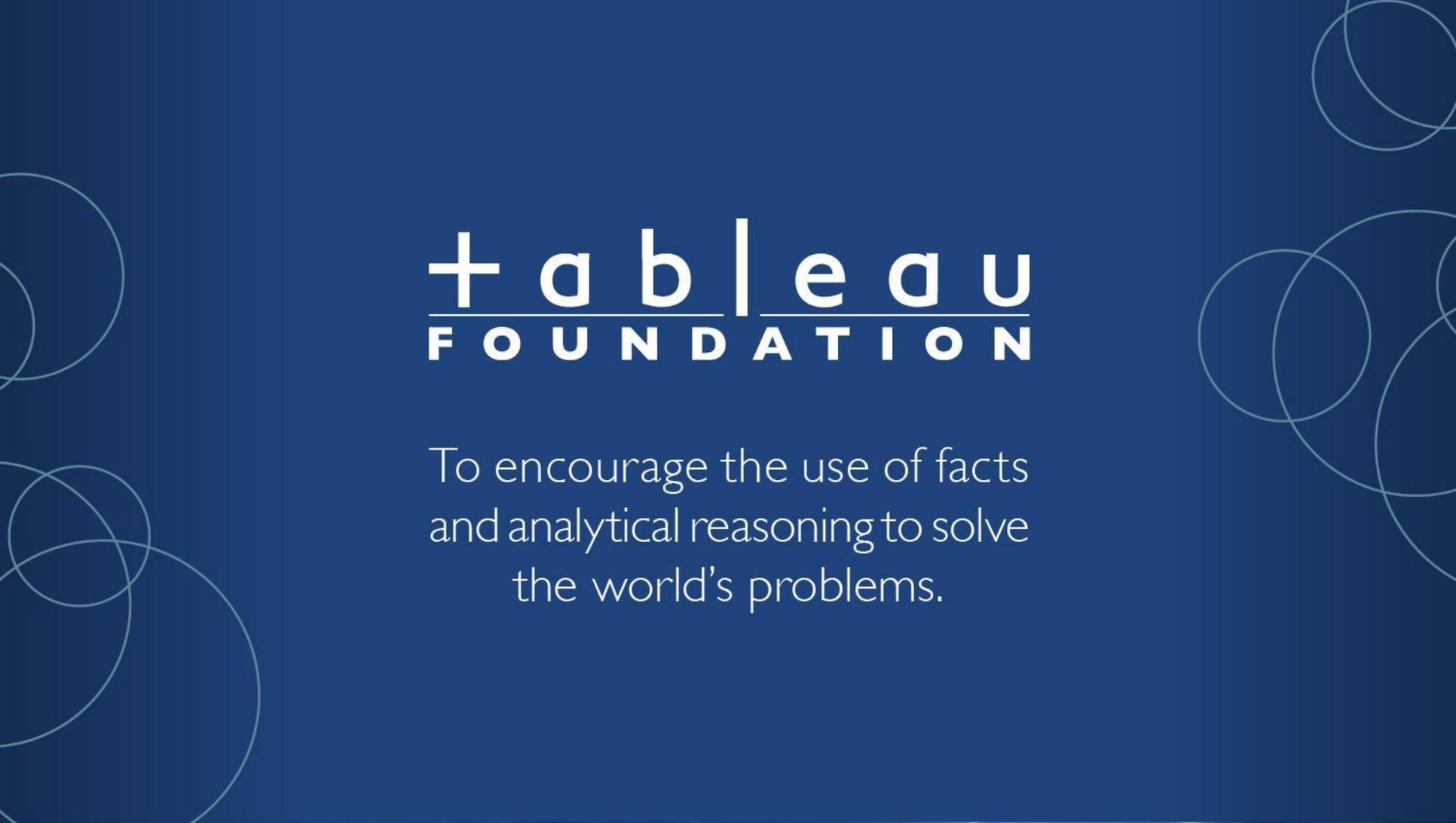
Community Help

- Request or offer help to others during COVID-19
- Donate to nonprofit fundraisers



Thank you

Neal Myrick, Tableau

The background is a solid dark blue. In the top-left and bottom-left corners, there are several overlapping white circles of varying sizes. In the top-right and bottom-right corners, there are also several overlapping white circles of varying sizes, some of which are partially cut off by the edge of the frame.

+ a b | e a u
F O U N D A T I O N

To encourage the use of facts
and analytical reasoning to solve
the world's problems.

COVID-19 Related Activities

- Launched three funds:
 - **Community Response Fund** – providing community support in 22 cities around the world
 - **Hunger Fund** – supporting food banks and other hunger-related activities that reach vulnerable populations
 - **Resiliency Fund** – to help nonprofits buy technology needed to enable staff to work remotely
- Building data capacity through software and training
 - Partnering with organizations to rapidly deploy the Tableau platform
 - Providing 3 months of access to our e-learning platform for anyone
- Launched the Tableau COVID-19 Data Hub

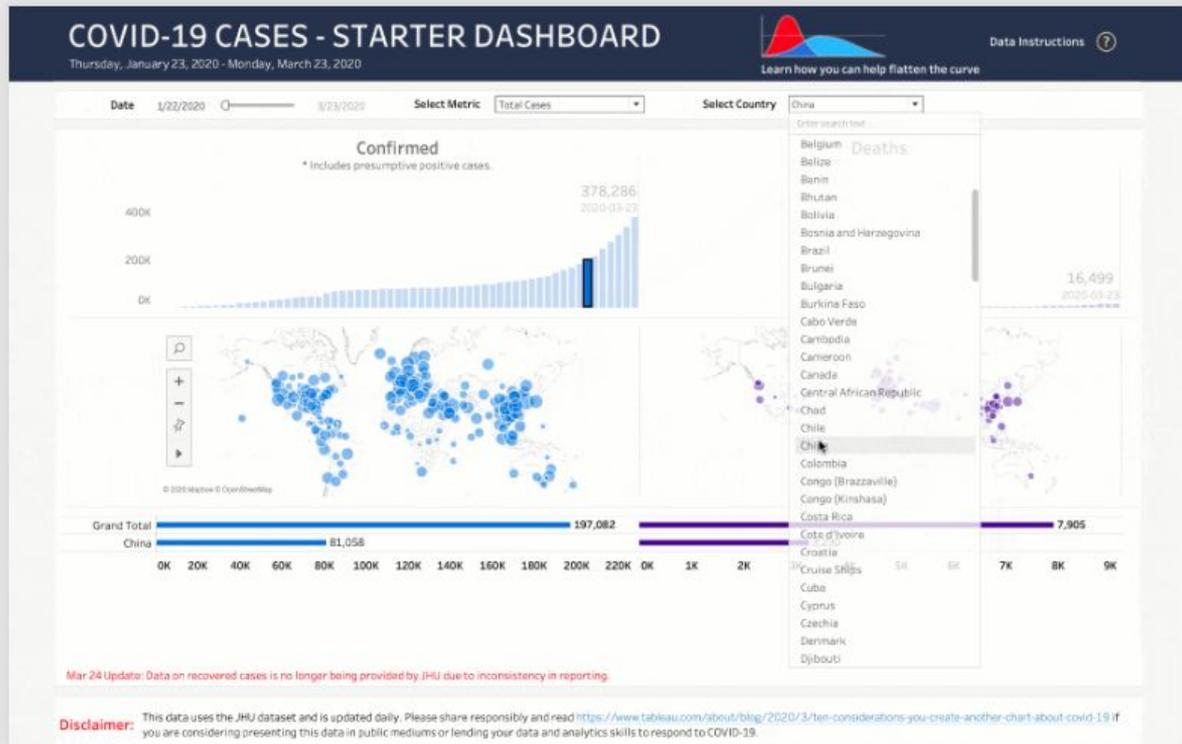
Global COVID-19 Starter Workbook

We have created a downloadable workbook with a starter dashboard and an embedded connection to a clean Johns Hopkins University Coronavirus Data Stream that combines WHO and CDC case data. Anyone can blend their own data with this workbook to better understand the impact on their organization. [View the Dashboard](#)

LATEST UPDATES:

JHU Data Stream is updated daily at 11 p.m. ET
We added county level data for the U.S.

[DOWNLOAD THE WORKBOOK](#)



Special thanks to Tableau Zen Masters [Anyia A'Hearn](#), [Tamas Foldi](#), [Allan Walker](#), and [Jonathan Drummey](#) for all of their work to make these resources more accessible to the public.



Access the data

Amazon Web Services (AWS)

The AWS Data Exchange makes it easy to find, subscribe to, and use COVID-19 data in the cloud.

- Refreshed daily by 10 p.m. PT
- [View in AWS Data Exchange](#)

data.world

COVID-19 case data can be directly downloaded or accessed through a Web Data Connector from data.world, a platform for data that enables users to post, search, and collaborate on data sets on a large and meaningful scale.

- Refreshed daily by 10 p.m. PT
- Hyper File: [Direct Download](#)
- CSV File: [Direct Download](#) | [Link for Web Data Connector](#)

Google Sheets

With the Google Sheets connector, you can use Google Sheets as a data source in Tableau Desktop. Vizses on Tableau Public that use the Google Sheets connector can be automatically updated once per day. Please note that Google Sheets may experience periodic outages during times of peak usage.

- Refreshed daily by 10 p.m. PT
- [View in Google Sheets](#)



Coronavirus COVID-19 Cases by Location

Data as of

28

April 2020

1 Select a Country Region
(All)

2 Select a Province/State
(All)

3 Color Legend
Positive Change Negative Change No Change (Recovered Only)

4 Export Image

Note: To view County data, select a US state.

Confirmed cases include presumptive positive cases. Recovered cases outside China are estimates based on local media reports and may be substantially lower than the true number. Active Cases = Confirmed - Recovered - Deaths. There are a few data points where Deaths or Recovered cases were greater than Confirmed cases or Active cases were negative. These data points are assigned a 0 for Active Cases.

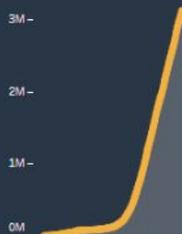
Confirmed

3,116,398 cases

Confirmed Cases as of

▲ 74,634 cases vs. prior day

▲ 567,275 cases vs. prior week



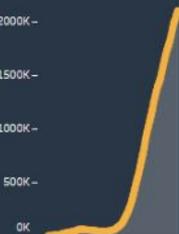
Active

2,105,925 cases

Active Cases as of

▲ 39,454 cases vs. prior day

▲ 324,483 cases vs. prior week



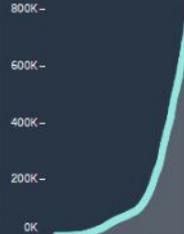
Recovered

793,491 cases

Recovered Cases as of

▲ 29,216 cases vs. prior day

▲ 202,064 cases vs. prior week



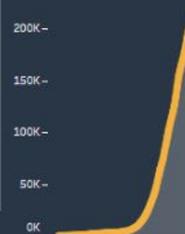
Deaths

217,153 cases

Death Cases as of

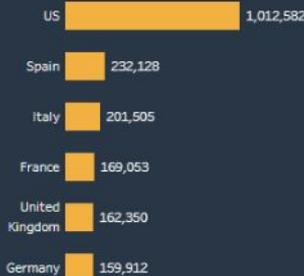
▲ 5,986 cases vs. prior day

▲ 40,570 cases vs. prior week



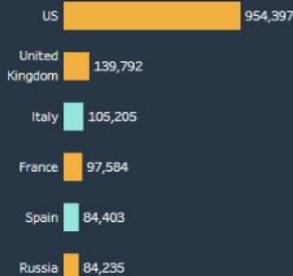
Confirmed Cases per Country/Region

Hover on a Country/Region for Details



Active Cases per Country/Region

Hover on a Country/Region for Details



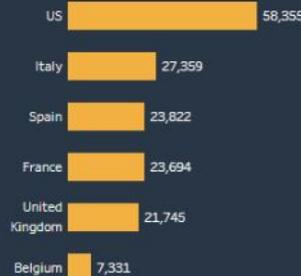
Recovered Cases per Country/Region

Hover on a Country/Region for Details



Death Cases per Country/Region

Hover on a Country/Region for Details



Update as of March 21, 2020: Recovered US Cases were temporarily discontinued for a short period of time due to inconsistency in reporting

FUNDING THE RESPONSE TO COVID-19

Analysis of funding opportunities
1 January to 27 April 2020



REPORT SELECTIONS

DONOR TYPE

- Bilateral
- Government
- Multilateral
- NGO/CSO
- Philanthropic
- Private Sector
- Research

FUNDING ANALYSIS

Count of funding initiatives



SUMMARY STATISTICS

TOTAL INITIATIVES 1,598 KNOWN VALUE \$413,839.05M

COUNTRY SPECIFIC INITIATIVES (%) 74.3% MULTI-REGION INITIATIVES (%) 25.7%



GEOGRAPHIC FOOTPRINT



FUNDERS

Government	347
Private Sector	234
World Bank	173
Foundation	160
United Nations	128
United States Agency for International Development	107



COVID-19 FOCUS AREAS

Response	792
Health systems	327
Economic	232
Research	147
Equipment	143
Women and girls	120
Victims	116
Prevention	80
Vaccine/treatment	58
Detection	56
Education	54
Communication	47
Manufacturing	5



FUNDING OPPORTUNITIES

Select an activity to find the specific FUNDING OPPORTUNITY

Title	Regions	Countries	Type	Known funding value
\$5 trillion Support to Boost Economic Impact of the Coronavirus Pandemic	Worldwide	Worldwide	Funding activity	\$5,000,000.00M
\$2.3 trillion in Loans to Support the Economy Disrupted by the Coronavirus Outbreak in the United States	North America	United States	Funding activity	\$2,300,000.00M
\$1 trillion for Assistance to Families and Small Business	East Asia and		Funding	



SEE ALL COVID-19 FUNDING

Building Data Capacity

- Helping existing Tableau users expand capacity
- Providing access to our e-learning platform
- Partnering with organizations including Dimagi, ThinkMD, AtmaConnect and others to help build infrastructure and visualizations
- Partnering with implementing organizations such as PATH and CooperSmith to build capacity in countries
- Supporting the Center for Data Visualization in their COVID-19 data hackathons

Farouk Meralli, mClinica

Enhancing COVID-19 Care at the Pharmacy Through Mobile Technology



Pharmacies are Critical to Public Health

Pharmacists are the first point of access to modern medical advice and treatment for many people in Southeast Asia, especially the poor and rural.^{1,2} Patients may not go to a hospital or clinic at all unless treatment at the pharmacy level fails first³ – **pharmacists are critical to primary healthcare in these markets.**⁴



Reasons why patients go to pharmacies first^{1,5}:

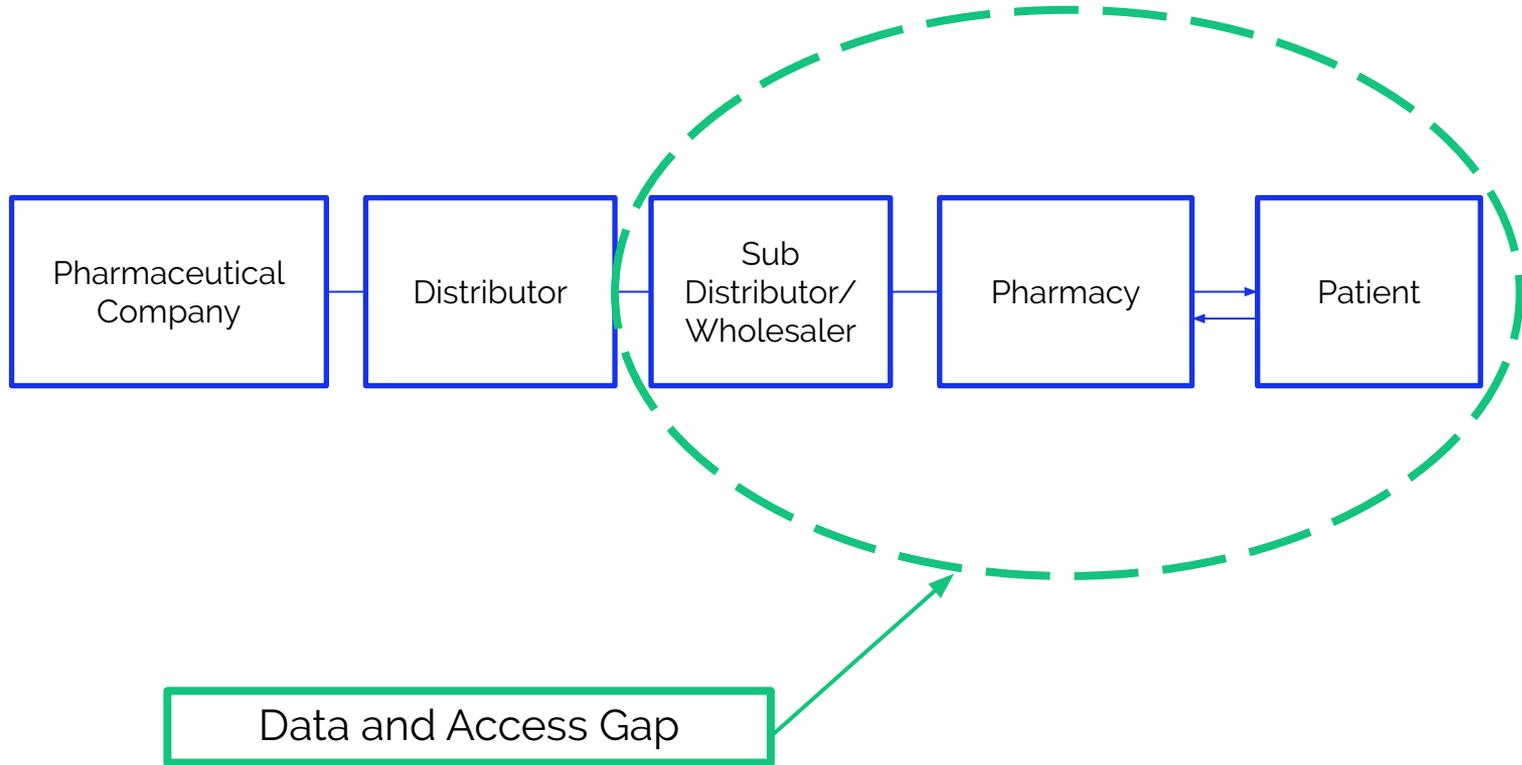
- Long opening hours
- Availability of medicines
- Ability to purchase small quantities of medicines
- No time or money to go to hospital or clinic
- Geographic familiarity
- Privacy concerns

Pharmacies across southeast Asia are fragmented

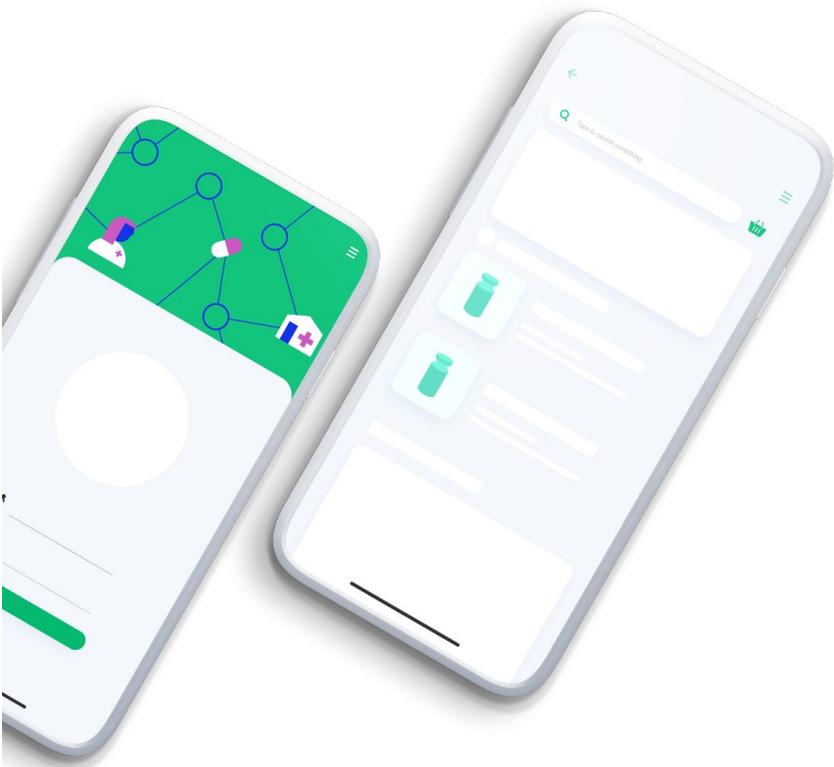


>80% of
pharmacies are
independent

We operate at the last mile



SwipeRx – SuperApp for Pharmacy Professionals



Accredited CPD modules



Research surveys



News and announcements



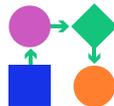
Drug directory



Collaboration with colleagues



Report adverse events

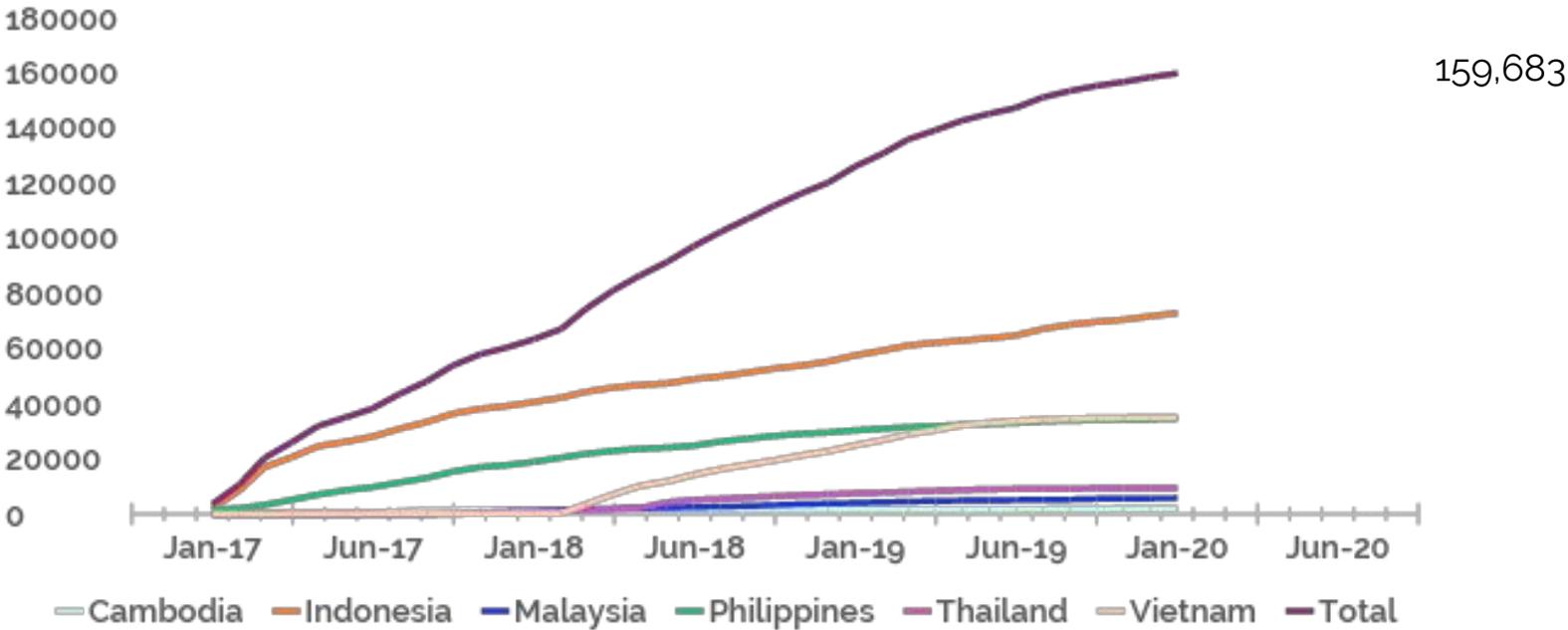


Case reporting and referrals



Job opportunities

We digitally connected over 150,000 pharmacy professionals from 40,000 pharmacies across Southeast Asia



Our pharmacy network now reaches approximately **150 million patients**.

Our Reach

In all our markets, we have engaged from 25% up to 70% of the pharmacists, creating a brand that pharmacy professionals know and trust.

1 in 3 Pharmacists in



1 in 3 Pharmacists in



1 in 2 Pharmacists in



1 in 4 Pharmacists in



1 in 4 Pharmacists in



1 in 4 Pharmacists in



Our pharmacy network now reaches approximately **150 million patients**.

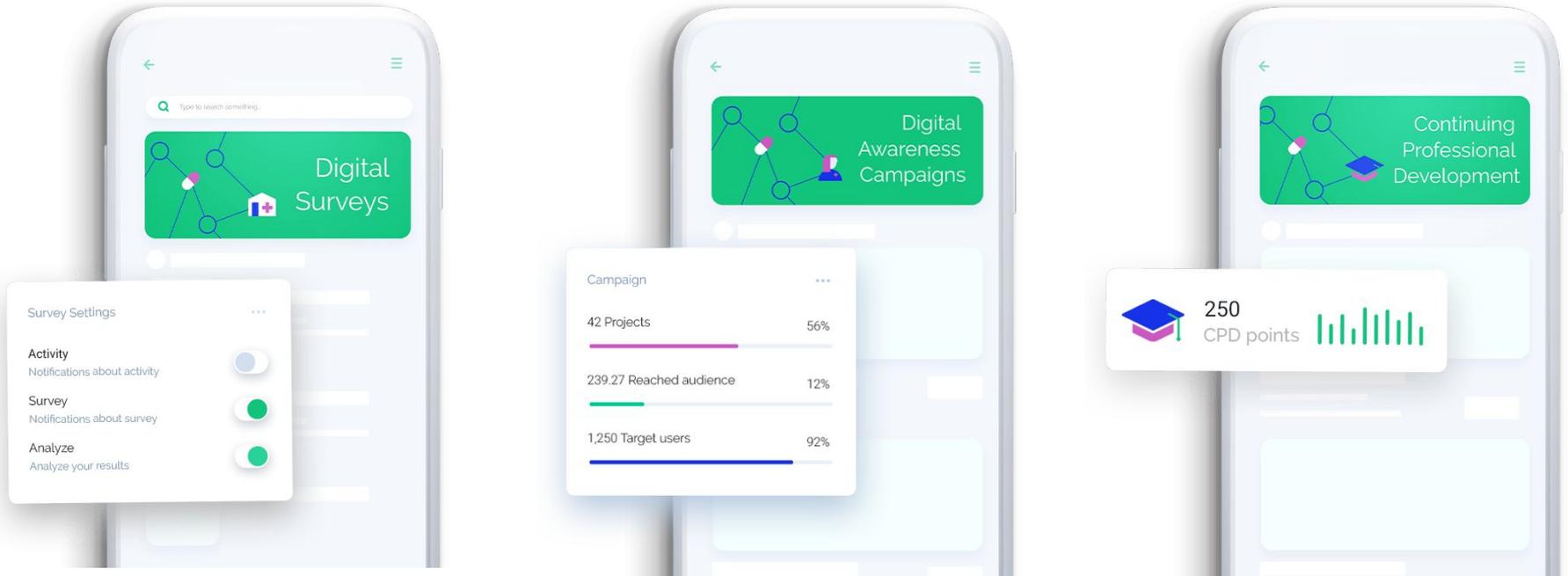
Case Study: COVID-19 in Indonesia

Since the first reported case on March 2, COVID-19 has spread across every province.

Today, there are 10,118 confirmed cases and 792 reported deaths.



We are using the pharmacy network to drive research, awareness and education.



Patients are visiting pharmacies for COVID-19 care

The pharmacy is an accessible source of care for the community during COVID-19 because they provide critical services like drug dispensing and counseling.

50% of patients seek advice on COVID-19 at the pharmacy

39% complain about COVID-19 symptoms

50% of patients bought fever or cold medicine during the period

Pharmacy education on COVID-19 needs improvement

Equipping pharmacy professionals with reliable and current information on COVID-19 can lead to more informed patient care.

53% of pharmacy professionals got the symptoms of COVID-19 wrong

96% got the criteria for rapid testing wrong

70% got the criteria for hospital referrals wrong

Pharmacy professionals are key to the fight against COVID-19



“My pharmacy remains open because the pharmacy provides health services and it is a moral and professional responsibility to continue serving in any situation. Has there ever been a time when there were no sick people? ... So the pharmacy must still serve.”



Farouk Meralli
meralli@mclinica.com

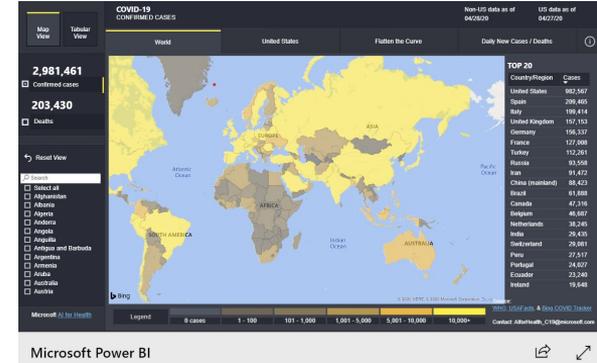


Brooke Loughrin, Microsoft

Making tools and insights easily available to improve decision making

Interactive Visualizations and Modeling Infections

One of the most impactful open datasets is provided by Johns Hopkins University. All the [data collected](#) is available on GitHub and the [mapping solution](#) is hosted by our partner Esri on Azure. [IHME at the UW](#) is hosting its data visualizations showing demand for hospital services on Azure. If you are on a team that needs access to any GitHub products or services for a COVID-19 project, [send the team a note](#) with info about your project and how GitHub can help.



[Learn more](#)

Low-Code Application Development

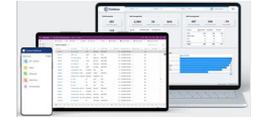
As an end to end low-code application development platform, Power Platform is enabling citizen and professional developers to build apps and workflows for rapid crisis response in a matter of hours—not months—that connect to your existing data and systems. [Power Apps](#) and [Power BI](#) communities around the world are lending their time and expertise to create pre-built templates and solutions that can be easily customized and deployed.



Crisis Comms Solution

Designed to help organization coordinate their own information sharing and team collaboration

[Learn more](#)



Healthcare Emergency Response Solution

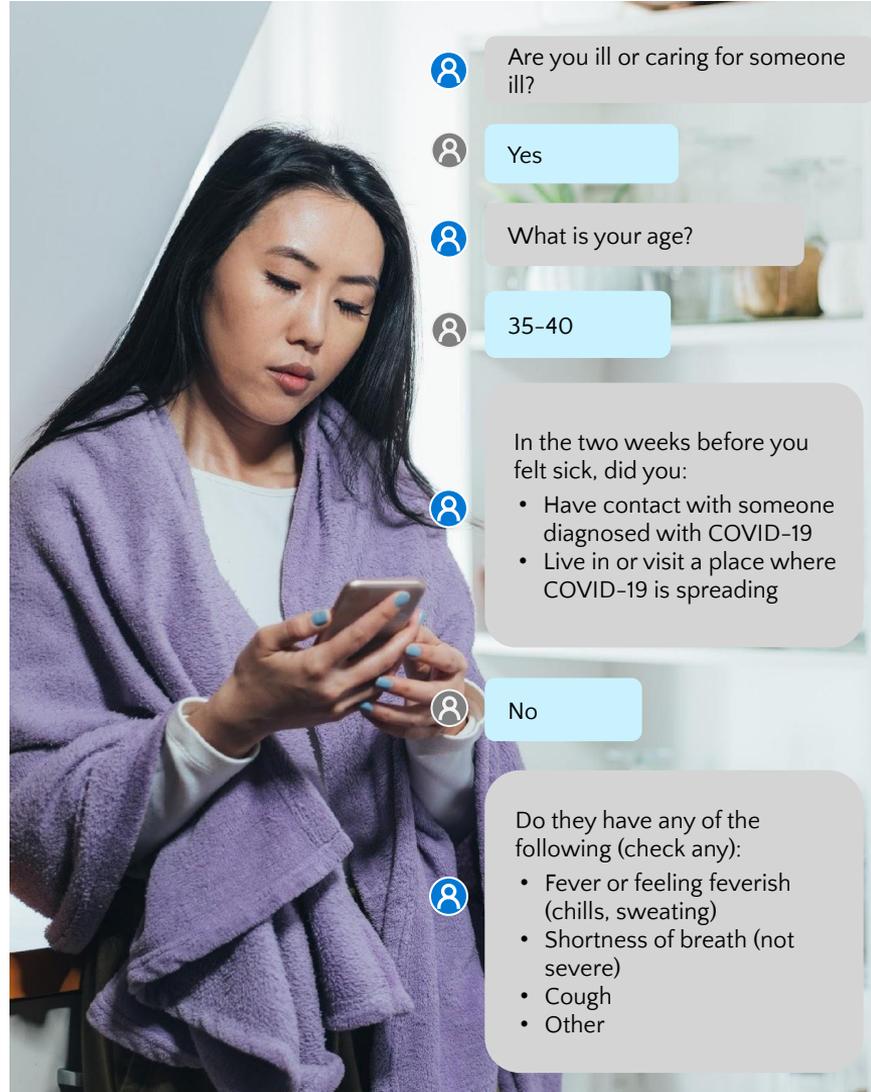
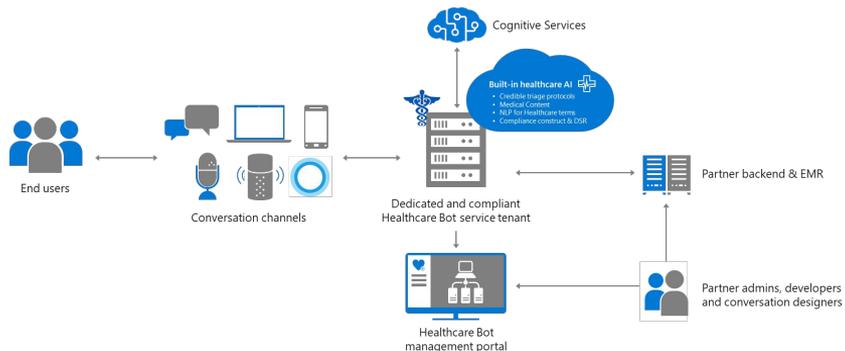
Provides healthcare providers a solution to track and gain visibility over critical resources

[Learn more](#)

Enabling the deployment of public health tools and services for self-assessment and self-screening

Healthcare Bot Service

[COVID-19 self-assessment bots](#) are helping healthcare organizations respond to inquiries, provide guidelines, answer questions, and guide people to sites of care. Together with the world's leading plasma companies, Microsoft has also launched a [self-screening tool](#) that recovered COVID-19 patients can use to self-qualify for plasma donation.



Are you ill or caring for someone ill?

Yes

What is your age?

35-40

In the two weeks before you felt sick, did you:

- Have contact with someone diagnosed with COVID-19
- Live in or visit a place where COVID-19 is spreading

No

Do they have any of the following (check any):

- Fever or feeling feverish (chills, sweating)
- Shortness of breath (not severe)
- Cough
- Other

Supporting the discovery and development of diagnostics, therapeutics, and vaccines

Decoding the Immune Response to COVID-19

[Adaptive Biotechnologies](#) and Microsoft are leveraging our existing partnership to find the relevant immune response signature to COVID-19 in order to advance solutions to diagnose, treat and prevent the disease and will provide an open data access portal for anyone to use in the fight against the pandemic.

Delivering Computing and Storage Infrastructure

We are also partnering with [ImmunityBio](#) to perform computational analysis of the spike protein structure of SARS-CoV-2 – and have contributed 24 petaflops of GPUs. We are also contributing computing power to our [Folding@Home](#)'s open-source, distributed-computing effort focused on computational drug design.



COVID-19 grants and resources

[\\$20 million in AI for Health grants](#) (Azure cloud and HPC capabilities, AI and data science resources), are now available to COVID-19 initiatives (you already heard about IHME at UW and Folding@Home!) focused on five areas where we think data, analysis, and the skills of our data scientists can have the greatest impact:

- **Data and insights** to inform for people's safety and economic impacts
- **Treatment and diagnostics**, enabling research to further the development of vaccines, diagnostics, and therapeutics
- **Allocation of resources**, including recommendations on the allocation of limited assets, such as hospital space and medical supplies
- **Dissemination of accurate information** to minimize misinformation sharing
- **Scientific research** to study and understand COVID-19

Other resources focused on [eligible NGOs](#):

- Microsoft offers donated or discounted products, including cloud services like Office 365 (including Teams), Azure and Dynamics 365, Surface hardware, and on-premises software.
- We're building on our long-standing support to the nonprofit sector by committing \$35 million to double our Azure credits, increase our Windows benefits and add new pro bono services to help [critical care and first response NGOs](#).



Q&A

Thank you!

