

Wednesday, May 25

Time	Description
08:00 - 09:00	Doors open Breakfast, registration and networking
09:00 - 09:15	Welcome remarks <ul style="list-style-type: none"> Organizer
09:15 - 09:45	Keynote: Good data saves lives: But what is good data? <ul style="list-style-type: none"> Samuel Scarpino, The Rockefeller Foundation Pandemic Prevention Institute <p>Data alone can't solve our problems. In fact, data often creates more problems than they solve. The way we quantify and qualify impact defines our values and what we mean by "good data." In this talk, Keynote speaker Samuel Scarpino describes how the SARS-CoV-2 pandemic highlighted longstanding issues around equity, privacy, and sovereignty, which can't be solved by technology alone. Addressing these challenges can facilitate a healthier, more equitable future for the planet, but requires a user-centered process of co-creation with on-the-ground partners. Only by taking such an equity-first approach can we hope for a future where data is a public good that drives value from nations to neighborhoods.</p>
09:45 - 10:30	Implementers' role in Whole-of-Government digital approach <ul style="list-style-type: none"> Sherman Kong, DIAL at UN Foundation <p>This session looks at the multi-partner GovStack Initiative with DIAL at UN Foundation, ITU, GIZ, and Estonia, and the larger market effects the model being put forth by the initiative will create, and its ecosystem alignment to other ongoing donor and UN system movements towards coordinated digital investment in development agendas and in products / Digital Public Goods.</p>
10:30 - 10:45	AM coffee break
10:45 - 11:30	The Custodian - Enabling global adoption of sustainable and safe open digital health tools <ul style="list-style-type: none"> Peter Coates, Apperta Foundation CIC Stuart Mackintosh, OpusVL <p>The Custodian is essential to delivering first class open digital health products that are clinically safe, secure, and sustainable. This session will describe what the Custodian is, how it empowers the community to control the product roadmap and how it ensures the supply chain flourishes. We will describe the evolution of the</p>

	<p>Custodian Model and how it provides a key collection of processes, procedures and policies that enable a truly open way of working. This session will provide several real-world use cases of the successful use of the Custodian and the positive impact it has on society.</p>
11:30 - 12:30	<p>Panel: Approaches to using AI/ML to improve health outcomes in low resource settings</p> <ul style="list-style-type: none"> • Mukhtar Ijaiya, Jhpiego • Quinn Lewis, Fraym • Sam Garman, BAO Systems <p>Artificial intelligence and machine learning (AI/ML) is transforming healthcare in developed markets, however, evidence is limited on how best to deploy and effectively scale AI solutions in health systems across LMICs. In this session, we will hear multiple approaches organizations are employing to use AI to improve health outcomes. Jhpiego will describe the development of a locally customized HIV Interruption In Treatment (IIT) risk prediction model, predicting a client's interruption to treatment in Nigeria with their partner Palindrome Data. FHI 360 will share lessons learned from developing an ITT risk model for patients enrolled in care in Akwa Ibom and Cross River states in Nigeria. Fraym and their partner BAO Systems will share an innovative approach to market segmentation analysis in South Africa that could be used to identify the profiles of people living with HIV/AIDS most likely to be able and willing to pay for HIV services and treatment.</p>
12:30 - 13:15	<p>Lunch break</p>
13:15 - 14:15	<p>Lightning talks</p> <ul style="list-style-type: none"> • Jeni Stockman, Macro-Eyes • Ellie Turner, Premise • Katherine Lew, BAO Systems • Kenneth Davis, Fraym • Haynes Sheppard, EdgeDX
14:15 - 15:00	<p>Breakout sessions</p>
14:15 - 15:00	<p>A novel and technology driven SBC approach to improving social cohesion in crisis-hit Lebanon</p> <ul style="list-style-type: none"> • Clémence Quint, Magenta <p>As the first protesters took to the streets in 2019, MAGENTA began an innovative project to investigate how a behavioral sciences-driven approach could help understand the drivers of social cohesion. Our research revealed two gaps: (1) Insufficient evidence on cohesion as an intra-Lebanese issue (as opposed to a host communities vs refugees). (2) Limited depth of analysis due to the complexity of the concepts examined. We explored three interwoven issues – leadership, governance and social cohesion – investigating the psychological, sociological and structural factors underpinning tensions. We then developed communications campaigns that spoke directly to Lebanese people's understanding of these issues.</p>
14:15 - 15:00	<p>Preventing duplicates and cleaning data using biometrics</p>

	<ul style="list-style-type: none"> • Chris Royce, Simprints • Sarah Grieves, Simprints <p>Duplicate records are common in all digital systems that rely on collecting personal identifiers such as names, telephone numbers or scanning / distributing QR codes. Fuzzy matching algorithms for deduplicating the data are currently the norm, however they often rely on a manual, time-consuming adjudication process which is still prone to error. Matching biometric data can significantly speed up the process and bring another level of accuracy to any digital system. During this session, we will cover the technical details of biometric deduplication followed by practical information about how to set thresholds and apply different visualization techniques such as clustering.</p>
14:15 - 15:00	<p>FlowKit: An open-source toolkit for mobile phone data analysis</p> <ul style="list-style-type: none"> • James Harrison, Flowminder Foundation <p>Call detail records (CDR) are metadata records produced from mobile network traffic. CDR data provide approximate geospatial trajectories of phone users over time, which can be an invaluable data source for mobility analysis in humanitarian and development contexts. This session will introduce FlowKit, an open-source toolkit developed by Flowminder for analyzing CDR data in humanitarian and development contexts. FlowKit provides tools for ingesting and processing CDR data, and for controlling access to anonymised outputs, while protecting data subjects' privacy. The session will include a demonstration of using FlowKit as an analyst in a crisis response scenario.</p> <p>Technical Level: Technical</p>
15:00- 15:30	PM coffee break
15:30 - 16:15	Breakout sessions
15:30 - 16:15	<p>Implementor perspectives and lessons learned from machine learning model development in India</p> <ul style="list-style-type: none"> • Erica Troncoso, Jhpiego <p>Jhpiego leads a project on Antenatal Risk Stratification and the development of an Intelligent Continuum of Care platform in India. The project team developed five innovative AI and ML algorithms which aim to predict adverse maternal and neonatal outcomes. As the continuum database expands, the team hopes to be able to layer the antenatal and intrapartum risk estimations to create composite risk indicators and design appropriate interventions for these scenarios.</p>
15:30 - 16:15	<p>Lessons learned from hosting enterprise software at scale</p> <ul style="list-style-type: none"> • Mary Rocheleau, Dimagi <p>This talk will review the technical approaches necessary to optimize hosting enterprise software both locally and in the cloud. We will draw upon specific experience hosting CommCare as part of the eCHIS system in Ethiopia and review industry trends around DevOps, cloud computing, data security, and governance</p>

	<p>as it relates to local infrastructure procurement and maintenance. After this talk attendees will understand major considerations around scaling infrastructure, key questions to ask at program inception around software infrastructure, and better understand how to mitigate key risks around long-term program sustainability and impact.</p> <p>Technical Level: Somewhat technical</p>
15:30 - 16:15	<p>Mapping COVID-19 vaccine hesitancy drivers using machine learning enhanced geospatial data</p> <ul style="list-style-type: none"> • Kenneth Davis, Fraym • Jeff Doering, Johnson & Johnson Global Public Health <p>We will share how we are using machine learning (ML) enhanced geospatial data to 1) map levels of COVID-19 vaccine hesitancy, 2) model the underlying drivers of hesitancy based on Confidence, Convenience, and Complacency, and 3) segment populations based on the unique combinations of these drivers down to the 1km2 across Ethiopia, Ghana, Kenya, Malawi, Mali, Nigeria, Rwanda, South Africa, Uganda, and Zambia. We are delivering data via a custom web-based dashboard/application to inform risk communication and community engagement (RCCE) and social behavior change (SBC) efforts among a wide variety of implementing partners working to increase COVID-19 vaccine uptake.</p>
16:15 - 17:00	<p>Panel: Harnessing social media to target interventions and drive health promotion and behavior change</p> <ul style="list-style-type: none"> • Jamie Arkin, AI-fluence • Jeni Stockman, Macro-eyes <p>With advances in information communication technologies (ICTs), social media platforms provide expanding mechanisms for understanding individuals' contexts and behaviors. Furthermore, it can enhance overall effectiveness of health promotion and behavior change interventions by encouraging social interactions within interventions, promoting social support, and facilitating the adoption of social norm approaches. During this session, AI-fluence will share how they are using Artificial Intelligence to identify nano and micro-influencers on existing social media platforms (Facebook, Instagram, Twitter, Tiktok) to lead social behavior change (SBC) campaigns. Macro-Eyes will share their experiences using AI/ML and social media to predict hyper local vaccine hesitancy and target behavioral interventions among hesitant communities. PSI will share how they are using Facebook to drive SBC on COVID-19 prevention and vaccines globally.</p>
17:00 - 19:00	<p>Networking reception</p>

Thursday, May 26

Time	Description
08:00 - 09:00	Doors open Breakfast and registration
09:00 - 09:15	Welcome day 2 <ul style="list-style-type: none">Nicola Hobby, BAO Systems
09:15 - 10:00	Building and deploying technologies for data insights in low connectivity environments to reduce risk in essential supply chains <ul style="list-style-type: none">Mike Linton, Parsyl <p>This session will feature lessons learned, challenges, and data outcomes from building and deploying a suite of technology solutions from the ground up for Global Health and other essential supply chains. Additionally, it will cover the power that granular data collection and subsequent data science modeling can provide to stakeholders to reduce risk and protect investments.</p>
10:00 - 10:45	Crowdsourcing data for real-time insights <ul style="list-style-type: none">Ellie Turner, PremiseRuben Conner - Palladium <p>By leveraging the power of the gig economy and cloud technology, Premise has put in place a global network of over four million data contributors—local citizens with smartphones—who use its app to perform structured data collection tasks and earn money. Development partners use this network to gain real-time visibility into local contexts, including in non-permissive environments. In this session, participants will learn how Premise's software uses machine learning to ensure quality of crowdsourced data, and explore case studies from health and humanitarian applications. Ruben will showcase how Palladium and Premise have partnered to collect survey results in Cote d'Ivoire exploring people's history of Covid-19, attitude towards vaccination, and sources of information regarding health choices.</p>
10:45 - 11:15	AM coffee break
11:15 - 12:00	Breakout sessions
11:15 - 12:00	STRIATA: AI-powered forecasting for essential medicines to optimize supply chains <ul style="list-style-type: none">Daren Trudeau, Macro-Eyes <p>Macro-Eyes used AI and machine learning through its core technology product – STRIATA - in Sierra Leone to optimize essential medicines forecasting. The session will present methodology, results, lessons learned, and replicability of the approach. The objective of the session is to share lessons learned in leveraging existing data to deliver proactive supply chain decision-making for essential medicines, and to encourage thinking on how the methodology can be scaled and deployed in other geographies and contexts.</p>

11:15 - 12:00	Cultivating strong stewardship of information systems <ul style="list-style-type: none"> • Danu Marin, Palladium • Pascal Mwele, Palladium <p>The session presents examples from three projects working to improve health information systems. In addition to highlighting data science and integration techniques, the presenters will share key principles for cultivating strong stewardship of information systems, explain challenges encountered during the process of scaling and integrating systems, and provide lessons for other implementers.</p>
11:15 - 12:00	Digital health for reproductive maternal and new-born child health services in sub-Saharan Africa <ul style="list-style-type: none"> • Miriam Nkangu, University of Ottawa • Mwenya Kasonde, Independent <p>This session will discuss digital health innovations that have been tested to support access to reproductive maternal and new-born child health. It will address the special role of government policy in sustainability, the importance of civil society advocacy in obtaining Universal Health Coverage and the SDGs. The session will discuss infrastructure, interoperability, accessibility and data science, and their role in developing evidence-based policy and a supportive social protection framework. Session is open to all with specific focus on Zambia, Cameroon sharing experiences in implementing digital health innovations in Cameroon and Zambia based on lessons learned on data availability, accessibility, and infrastructure.</p>
12:00 - 13:00	Lunch break
13:00 - 13:45	Plenary session
13:00 - 13:45	Myths and pitfalls of Enterprise Deployments: Stories and lessons learned from the Trenches <ul style="list-style-type: none"> • Lisa Spory, BAO Systems • Steffen Tengesdal, BAO Systems • Nicola Hobby, BAO Systems <p>This session will address some preconceived myths about enterprise level deployments and provide insight on how to avoid some pitfalls along the way. This will include topics around dev-ops process, infrastructure considerations and security and compliance requirements. The session will combine real world use cases from the user's perspective with technical experts to provide a comprehensive story around these topics.</p>
13:45 - 14:30	Breakout sessions
13:45 - 14:30	Supporting patient centric care with a predictive, machine learning, profiling tool <ul style="list-style-type: none"> • Lucien De Voux, Palindrome Data <p>For health programs and interventions to be successful and reach all populations that need it, they need to be inclusive and person-centric. This means programs need to understand target populations beyond their demographic and clinical features. This session discusses using a data science model developed by</p>

	<p>Palindrome and partners to segment target populations based on additional features such as personal, contextual, behavioral or psychographic to help program managers and implementers design more suitable and successful interventions and programs, much the same way as market segmentation is used in product marketing.</p>
13:45 - 14:30	<p>Harnessing climate and technology to combat Malaria</p> <ul style="list-style-type: none"> • Kelly Willis, Malaria No More • James Colborn, Clinton Health Access Initiative • William Pan, Duke University <p>Malaria infects over 240 million people a year and kills over 600 thousand, mostly women and children. Climate change is complicating efforts to eliminate malaria in countries around the world. Rising temperatures, changing rainfall patterns, and extreme weather events all disrupt health systems, and change the range and seasonality of malaria infection. How can technology and data, such as artificial intelligence, smarter systems of prediction, and precision planning, help overcome the effects of climate change and accelerate progress toward malaria eradication?</p>
13:45 - 14:30	<p>Data-sharing public-private partnerships for sustainable urban mobility</p> <ul style="list-style-type: none"> • Nigham Shahid, GSMA <p>This session will address how governments can work with a range of private organizations that hold "innovative" and other sources of data that can be used for better urban mobility, using Malaysia as a case study.</p>
14:30 - 15:00	PM coffee break
15:00 - 15:45	Breakout sessions
15:00 - 15:45	<p>AccessMod: A web application to model accessibility to healthcare</p> <ul style="list-style-type: none"> • Yann Forget, Bluesquare <p>AccessMod is a desktop tool developed by the World Health Organization (WHO) to help countries assess the geographic accessibility of their health system. The first release of the tool was 18 years ago, and it has been widely used since by various groups within and outside WHO to support better strategic investment decisions and the planning processes of policies supporting Universal Health Coverage (UHC). Bluesquare is developing an online version of the tool at the request of WHO. In the session, Bluesquare will share its experience in implementing a scientific tool as a scalable and user-friendly web application.</p> <p>Technical Level: Somewhat technical</p>
15:00 - 15:45	<p>Data analysis and visualization for policy impact: Utilization of data from the COVID-19 trends and impact survey</p> <ul style="list-style-type: none"> • Marla Shaivitz, Johns Hopkins Center for Communication Programs • Dominick Shattuck, Johns Hopkins Bloomberg School of Public Health <p>The COVID-19 Trends and Impact Survey is a large, cross-sectional, internet-based survey. Funded by and distributed through Facebook, this survey</p>

	<p>has captured 30 million+ responses from over 200 countries related to knowledge, attitudes and practices around COVID-19 and vaccine acceptance. Since its launch, Johns Hopkins Center for Communication Programs has visualized the results of this survey. This presentation provides an overview of the process of presenting data for public health practitioners, WHO officials and policy advocates around the world. This includes the decision-making process around the data and technology platform for the broadest reach in low- and middle-income countries.</p> <p>Technical Level: Not technical</p>
15:00 - 15:45	<p>Smart Facilities: Passive data collection for decision support</p> <ul style="list-style-type: none"> • Haynes Sheppard, EdgeDX • Steffen Tengesdal, BAO Systems <p>Point of care data capture is increasing steadily, as internet and electrification improve, but often requires multiple methods of data capture to push data from a facility to an MOH or central office. In a medium sized health facility, it is not uncommon for staff to capture data in a mobile app for a particular disease, enter patient data in a web platform for other programs, upload spreadsheets for a third type of data, and so forth. In this session, learn how BAO Systems has partnered with EdgeDX to leverage a device known as the Node to seamlessly capture, transmit, and make use of passive and system data streams.</p>
15:45 - 16:30	Plenary session
15:45 - 16:30	<p>Reimagining the future of global development</p> <ul style="list-style-type: none"> • Walter Kerr, Unlock Aid • Jamie Arkin, AI-fluence • Busoye Anifalaje, BAO Systems <p>Constrained by business practices and regulations set up many decades ago, many of the world's largest global development agencies are not set up to meet the challenges of the 21st century. Now, a growing chorus of innovators from around the world are working together to reimagine the future of global development to make it more outcomes-oriented, innovative, transparent, and increasingly led by frontline actors. Learn about some of the changes that innovators want to see and come ready to share your own ideas about what the future of global development can look like.</p>
16:30 - 16:40	<p>Closing</p> <ul style="list-style-type: none"> • Busoye Anifalaje, BAO Systems • Nicola Hobby, BAO Systems