# APPY HOUR

This fast-paced, fun session will feature research-focused presentations, with ample time allotted for question & answers. Presenters have one and a half minutes to present their one slide featuring research & technical content. Following three presentations, the presenters are put onto a panel, where they will take questions and expand upon their work. CORE Group has allotted approximately 15 slots for the Appy Hour Presentations. Listings below indicate authors or presenters.

| TUESDAY, OCTOBER 29, 2024 |
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| **Harnessing Breakthrough ACTION's SBC Learning Central for Health Equity.** <br><br> **Authors:** <br> **Ashley Riley, Malaria Program Officer II,** Johns Hopkins Center for Communication Programs <br> **Heather Hancock, Sr Program Officer,** Johns Hopkins Center for Communication Programs <br><br> **Description:** <br> SBC Learning Central is a free, online learning platform specifically designed to provide public health professionals with foundational knowledge and skills to incorporate social and behavior change (SBC) methodologies into their work. Offering a rich array of courses and toolkits spanning SBC approaches such as community engagement and provider behavior change, and health technical areas, including nutrition and emergency response, the content promotes actionable insights and best practices. As a mobile-friendly platform, SBC Learning Central ensures accessibility and adaptability, providing public health professionals a flexible learning experience. With an emphasis on transferable skills, course authors share expertise in multi-sectoral technical areas, as well as procedural knowledge of how to apply a variety of SBC solutions to address the unique behavioral, social, and structural barriers to good health and wellbeing facing specific communities. |

Our goal is to help institutionalize SBC approaches, creating a critical mass of skilled SBC practitioners and supportive decision makers worldwide. With a focus on francophone West Africa, the interface as well as most courses/toolkits are offered in French and English. This presentation will introduce SBC Learning Central and the self-paced, skill-building opportunities available. A showcase of features and functionality will demonstrate how to register, track progress, earn and access certificates, as well as how to participate in cohort-based learning opportunities. With over 4,600 registered users representing 120 countries, we have awarded nearly 5,000 certificates to date. Join us to learn how to integrate SBC Learning Central into your personal and organizational capacity-strengthening goals.

## Empowering Climate-Resilient Healthcare: The Parkers Resilient Health Digital Solution.

### Authors:
**Charles Umeh,** Parkers Mobile Clinic and PhD Student

### Description:
In an era where climate change poses significant threats to global health—particularly among marginalized communities—the need for innovative and resilient healthcare solutions has never been more critical. Parkers Resilient Health is a digital health project that introduces a pioneering approach to integrating climate resilience into healthcare delivery. Our initiative leverages digital technology to provide sustainable, accessible, and adaptable health services to communities disproportionately affected by climate change in Nigeria. The Parkers Resilient Health project employs a comprehensive digital platform that facilitates remote medical consultations, climate-related health education, and community-based monitoring of environmental health risks. This approach not only addresses the immediate healthcare needs of vulnerable populations but also empowers them with knowledge and tools to adapt to the changing climate.

Our digital solution reflects the diverse contexts and identities of people in various healthcare settings, recognizing the unique challenges faced by each community. By emphasizing local partnerships and incorporating feedback from the communities we serve, our project ensures that the technology is tailored to meet the specific needs of each setting. The presentation will showcase successful case studies, demonstrating how the Parkers Resilient Health digital solution has made a tangible impact on improving health outcomes and enhancing climate resilience among marginalized groups. Through this session, we aim to share insights on the importance of integrating climate adaptation strategies into healthcare planning and delivery, providing a scalable model for others to follow.

## Advancing Community-based Malaria Surveillance in Myanmar: Digital Solutions and Capacity Building at Rakhine State and Tanintharyi Region.

**Authors:**
**Day Naing Aung, Senior Technical Officer, Malaria Surveillance,** PATH

**Description:**
Malaria is a significant public health issue in Myanmar, disproportionately affecting communities in remote areas with limited resources. The country's recent political crisis is impeding malaria control efforts and hindering progress toward its malaria elimination goal. Although traditional paper-based reporting is still in use, the National Malaria Control Programme (NMCP) and its partners are transitioning to a digital system that employs mobile and web applications. To effectively utilize the interoperable digital reporting platform, "One Malaria Surveillance System," township data focal persons need essential technical capacity and digital literacy. To address this need, the Digital Community Health Initiative (DCHI) focuses on enhancing their ability to engage with the emerging digital surveillance system. As an initial step, DCHI assessed township-level readiness through a situational analysis in Rakhine State and the Tanintharyi Region.

The analysis identified challenges such as limited human resources, data quality issues, and data management concerns, while also revealing opportunities for improvement through targeted training. In response, DCHI, in collaboration with the NMCP, trained 21 data focal persons in data management and capacity building. The training modules covered Microsoft Excel, Quantum Geographic Information System, and data management techniques. This training improved the participants' data management and visualization skills, enabling them to navigate the emerging malaria surveillance system more effectively. Feedback indicates a significant enhancement in their readiness for digital surveillance activities. DCHI's efforts mark a pivotal step toward improved malaria surveillance in Myanmar. The transition to digital tools and the enhancement of township-level capacity contribute to a more efficient and effective fight against malaria, bringing the country closer to its elimination goal.

## Learning for Humanity: A Transformative e-Learning Platform for Catholic Sisters and Frontline Health Workers.

**Authors:**
**Govinda Bilges,** Medicines for Humanity
**Kristen Lilley,** Medicines for Humanity
**Kenneth Muko,** Medicines for Humanity
**Esther Miranda Rodriguez,** Medicines for Humanity

**Description:**

Learning for Humanity (L4H) is an e-learning platform developed by Medicines for Humanity for Catholic Sisters, their staff, and frontline health workers. It was created using human-centered design and adult learning practices to build capacity, strengthen knowledge and skills, and improve the quality of clinical and community health services, ultimately aiming to reduce maternal and child mortality. L4H is accessible via phone or tablet applications and other internet-connected devices and is designed to meet the unique needs of its target audience.

The platform is flexible and user-friendly, offering diverse, interactive content that reflects real-life situations. Available in English, French, and Spanish, L4H provides both synchronous and asynchronous learning options, including 13 self-paced courses, mentorship, expert-led webinars, project-based learning, and social learning through forums and WhatsApp Groups. Here, students can engage with one another, share experiences, and exchange resources. Courses cover a range of topics such as healthcare management, leadership, pharmacy management, community health worker (CHW) program management, program management, monitoring and evaluation, maternal and child health communication, respectful maternity care, nutrition, WASH, economic strengthening activities, microfinance, grant writing, and advocacy. Since its inception in 2021, L4H has registered 1,144 enrollments from 33 countries, including clinic managers, physicians, and community health promoters. Graduates have implemented innovative health programs and systems within their communities, leading to increased facility revenues, expanded access to care, and reduced neonatal mortality. Notable improvements include advancements in human resource procedures, clinic budgeting, pharmacy management, economic strengthening activities, community nutrition services, and water, sanitation, and hygiene education.

## Use of Interactive Voice Response System (IVRS) to bridge time and distance among young couples in India: Digital solution for hard-to-reach communities.

### Authors:

**Lopamudra Paul,** Pathfinder International
**Manish Mitra,** Pathfinder International
**K Laxmi Rao,** Pathfinder International

### Description:

In recent decades, with changes in the mobile landscape, YUVAA—a flagship family planning program—has used audio communication channels to reach rural young couples in the states of Bihar and Maharashtra in India. This approach extended the project beyond on-ground in-person interpersonal counselling (IPC) and community activities, providing a solution to build and nurture continuous connections with the community through innovative technology-based solutions. This includes interactive social media on the

IVRS-based Hello Safal (HS) platform. The audio programs were audience-specific (e.g., how men can participate in family planning, how to initiate discussions with partners, etc.) and created interactive discussion forums.

The platform became popular during the COVID-19 pandemic (March 2020–May 2021) in rural areas. With restrictions on physical mobility, virtual networking became a primary means for youth to stay connected. The number of callers increased from 1,889 in the first wave to 46,416 during the second wave of COVID-19. Trends show that during different COVID-19 waves, listenership per month increased by 1.64 times during the first pandemic wave and by 1.29 times during the second wave, with 443 community stories shared. This platform became an interactive medium for reaching others in the community through the sharing of experiences, stories, and Q&A, effectively bridging physical distances during the pandemic. The IVR-based HS platform has the potential to be scaled in different settings and can integrate various content based on community needs. Therefore, it offers a solution that overcomes barriers of time and distance, preparing the community to face future pandemics.

## Streamlining Health Products and Technologies Quantification: A Digital Solution for Efficiency in Healthcare.

### Authors:
**George Mwangi, AI & Data Associate,** InSupply Health

### Description:
Quantifying Health Products and Technologies (HPTs) at the county level is essential for effective and sustainable supply chain management. However, current methods involving manual tools have proven to be time-consuming and error-prone, which hinders data-driven decision-making. Recognizing the need for a more efficient solution, inSupply Health developed a custom web-based tool to streamline this process. This innovative tool automates facility classification, data extrapolation, and aggregation, significantly reducing processing time from weeks to mere minutes.

By organizing files in a standardized, networked location and offering a user-friendly web interface, the tool minimizes human effort while enhancing data accuracy. Extrapolation is achieved through the web-based system by utilizing uploaded Excel sheets to classify facilities as high or low volume, ensuring accurate data representation. The impact of this digital solution is profound; stakeholders now obtain final outputs in shorter workshops, reducing the time from five days to four while ensuring comprehensive product outputs and cost estimates. Moreover, the tool facilitates collaborative decision-making by incorporating human-in-the-loop processes and providing a centralized platform for data management and analysis.

This digital solution has enhanced efficiency, expedited decision-making processes, improved collaboration, and increased data accuracy in four

counties in Kenya. It empowers decision-makers to advocate for greater resources and ultimately improves health outcomes at the county level.

## Accelerating Access to Cancer Care in Climate-Impacted Communities: A Telemedicine Intervention in Kitui County, Lower Eastern Kenya.

### Authors:

**Kaguamba Kihuha,** Catholic Medical Mission Board
**Zipporah Mbuthia,** Catholic Medical Mission Board
**Theresia Mukethe,** Catholic Medical Mission Board
**Moses Gatimu,** Catholic Medical Mission Board
**Jesse Kihuha, Program Manager,** Catholic Medical Mission Board

### Description:

Kitui County, located in lower eastern Kenya, is particularly vulnerable to the adverse effects of climate change. This region faces significant health challenges, notably cervical cancer—one of the non-communicable diseases and the fourth leading cause of cancer mortality among African women. Despite the high mortality rate, only 16.4% of Kenyan women aged 30-49 have been screened for cervical cancer, resulting in thousands of cases and deaths annually. The delayed detection and diagnosis are largely due to a low suspicion index among healthcare providers.

### Methodology:

To address these challenges, the Catholic Medical Mission Board (CMMB) implemented a telemedicine initiative across 16 peripheral hospitals in Kitui County, with the county referral hospital serving as the hub. This project integrated telemedicine with Continuous Medical Education (CME) sessions, aligning with the Ministry of Health's capacity development framework. The initiative targeted 245 healthcare providers, including doctors, nurses, and laboratory personnel.

### Outcomes:

The telemedicine initiative significantly improved healthcare delivery. Within six months, the number of patient referrals to the cancer center for diagnosis and staging increased to 131, and the number of patients enrolled in cancer treatment rose from zero to 73. This improvement was attributed to an enhanced suspicion index among healthcare providers, leading to increased early-stage cancer diagnoses and timely initiation of treatment, thereby improving the chances of positive health outcomes for cancer patients.

### Conclusion:

The telemedicine project in Kitui County demonstrates a viable strategy for enhancing the capacity of healthcare providers to address health inequalities in climate-impacted communities.

**A Doctor at Your Fingertips: Leveraging Sustainable Digital Health Solutions for Equitable Primary Care Through Public-private Partnership in Nandi County, Kenya.** [OBJ]

**Authors:**
**Martin Makau,** HealthX Africa
**Maximila Chebet,** HealthX Africa

**Description:**
Kenyans face a triple challenge of inaccessible, poor-quality, and expensive healthcare. With 80% of the country either uninsured or underinsured, one in ten families falls into poverty annually due to health expenses. Healthcare is often accessed late, reducing opportunities for effective preventive and promotive care and increasing the costs associated with late-stage secondary care. Nandi County, which has a population of nearly 900,000, is vast and suffers from inadequate health infrastructure and a shortage of human resources for health. Additionally, the outpatient departments of secondary care facilities in Nandi County were overwhelmed with patients needing primary care.

HealthX Africa, a digital-first primary health care service in Kenya, collaborated with the Nandi County government through a public-private partnership model to pilot telemedicine and virtual care solutions. The goal was to address the primary care needs of Nandi citizens and decongest specialist care outpatient areas. From February 2023 to February 2024, HealthX Africa established a virtual clinic pod at Kapsabet Referral Hospital to provide virtual consultations, prescriptions, and laboratory requests for primary care outpatients. Each virtual clinic patient received one month of free, unlimited follow-up consultations for medical, mental health, and nutrition services via telemedicine from their phones, thus preventing unnecessary hospital visits.

The pilot served 956 individual patients, conducting 1,180 virtual clinical consultations and 561 telemedicine calls. Most patients were female and under 40 years old. Most consultations addressed gastroenterological, musculoskeletal, respiratory, genitourinary conditions, and chronic illnesses. Modelling estimates suggest that the service resulted in savings of over KES 500,000 for the county.

**Scale up of the Electronic Community Health Information System (eCHIS) in 6 districts of Uganda through a Consortium of Partners.** [OBJ]

**Authors:**
**Priscillah Balirwa,** Living Goods
**Solomon Muhumuza, Digital Health Manager,** Living Goods

**Description:**

The Global Fund's Data Science Catalytic Fund allocated resources to scale up Uganda's electronic Community Health Information System (eCHIS) to target Village Health Teams (VHTs) in selected districts implementing integrated Community Case Management (iCCM) and community interventions in malaria, HIV, and tuberculosis. This funding supported the Ministry of Health (MoH) in improving service quality, productivity, motivation, and performance of Uganda's VHTs by adapting digital tools to facilitate their routine care, education, data collection, and reporting.

Guided by the first-ever National Community Health Strategy, the Uganda Health Information and Digital Health Strategic Plan, and the national eCHIS implementation guidelines, Living Goods, Medic, and BRAC supported the implementation and operationalization of eCHIS in six districts. The project was executed over three months (October–December 2023) and included the Training of Trainers (ToTs) at national and district levels, district-level planning meetings, VHT training and refreshers, installation of the eCHIS, household registration, and National Performance Review meetings.

Additionally, user feedback loops and system improvements were incorporated, leveraging a human-centered design approach. Despite the short implementation period, this project eased the daily work of VHTs, improved service delivery through standardized workflows, and reduced the burden of disease and overall mortality rate. A total of 2,456 Community Health Workers were trained and digitally equipped, with 99% receiving performance-based incentives. More than 26,000 children under five were assessed, and 82% of those with positive malaria rapid diagnostic tests received Coartem.

## Hope On Two Wheels: Expediting Access To Timely Post-violence Care Services By Children, Adolescents, And Young Women Through Guardian Riders In Siaya County, Kenya.

### Authors:
**Hilary Ngeso,** Catholic Medical Mission Board
**Dennis Menya,** Catholic Medical Mission Board
**Wayne Otieno,** Catholic Medical Mission Board
**Lorine Ogutu,** Catholic Medical Mission Board
**Faith Lorainne,** Catholic Medical Mission Board

### Description:
Sexual and gender-based violence (SGBV) remains a pervasive issue in Kenya, presenting complex challenges. Studies show that 41% of women have experienced violence from their partners. There is an increased risk of HIV acquisition among SGBV survivors. Timely access to post-violence care (PVC) within 72 hours is crucial for effective intervention. However, SGBV survivors

often face socioeconomic barriers, including financial and mobility constraints, which hinder prompt access to PVC services.

## Methodology:
CMMB's Guardian Rider initiative engages trained local motorcycle riders, known as Guardian Riders, to provide safe and reliable transportation, emotional support, and guidance to SGBV survivors, ensuring swift access to PVC services. Based on an established criterion, 12 riders were trained on GBV, human rights and the law, referral pathways, and survivor support mechanisms. A WhatsApp group facilitated coordination, and transport coupons were provided to document their trip details. Monthly feedback meetings were held to review implementation.

## Results:
From January 2023 to September 2023, 48 survivors (six male; 42 female) utilized Guardian Rider services. Among these, 53% sought health-related services, 30% received incident reporting support, 14% accessed counselling services, and 3% received legal aid. Notably, 21% of cases were resolved within six months, a significant improvement compared to the usual resolution period of about two years for most sexual violence cases. The riders also supported survivors in navigating processes at various sites, thereby reducing trauma.

## Conclusion:
The Guardian Rider initiative is a locally viable, sustainable, and effective strategy for improving the referral system and expediting responses to human rights violations within communities.

## An Artificial Intelligence Enabled Mobile Application for Child Growth Monitor.

### Authors:
**Rita Kayeny,** Palm Corps
**Miriam Kahraman,** Palm Corps

### Description:
Welthungerhilfe's digital innovation project leverages AI to fight child malnutrition. Around 200 million children worldwide suffer from malnutrition, which contributes to one-third of deaths among children under the age of five. In the fight against malnutrition, early detection is crucial, but it is challenging due to traditional methods of measuring children being complex, slow, and expensive, often resulting in poor data and incorrect assessments of a child's health.

Early detection of malnutrition is key to initiating treatment, minimizing the risk of complications, and significantly reducing the chances of death. Our solution replaces traditional hardware (bulky measuring boards and physical

scales) with off-the-shelf cell phones and AI. The Child Growth Monitor (CGM) uses augmented reality-enabled smartphones to capture 3D scans of children. Artificial Intelligence predicts their height, weight, and mid-upper arm circumference, which are essential for assessing nutritional status.

Using the Child Growth Monitor (CGM), we will demonstrate how this AI-based application enables healthcare workers and NGOs to detect malnutrition in children aged 6 months to 5 years through a photo or video sequence. Our aim is to show how the app can improve project implementation across various use cases and contexts. We will share insights from the multinational pilot project using the CGM application, which is part of the BMZ-PA funded project—Digital Innovations for Zero Hunger Phase 2.

## The Curamericas Global Meaningful App: A Digital Data Collection and Management System for Community Health. ⌗

### Authors:
**Lilian Nyandika,** Impact Global Health Alliance (formerly Curamericas Global)
**Barbara Muffoletto,** Impact Global Health Alliance (formerly Curamericas Global)

### Description:
Introducing the Curamericas Meaningful App, a robust data collection and management system tailored for nonprofit organizations. The system is intervention-agnostic and can be seamlessly customized to suit the unique requirements of any organization. It is particularly adept at tracking longitudinal data, such as data gathered during routine home visits with pregnant women and mothers of young children. The Meaningful App boasts a user-friendly interface, ensuring simplicity and ease of use for all users. It operates efficiently in both online and offline modes, facilitating uninterrupted data collection regardless of connectivity.

Whether for one-time surveys or ongoing longitudinal studies, this versatile platform accommodates diverse data collection needs. At its core, the Meaningful App features a highly customizable backend system. This flexibility allows organizations to configure the system to their exact specifications, enabling precise and accurate tracking of complex indicators. One of the standout features of the Meaningful App is its customizable data visualization boards. These intuitive dashboards empower managers to monitor data in real-time, providing instant insights into key metrics and trends. Additionally, these visualization tools enable the sharing of high-level data views, fostering informed decision-making and collaboration within organizations. In essence, the Curamericas Meaningful App combines simplicity, adaptability, and powerful customization capabilities to streamline data collection and management for nonprofit organizations. Unlock the potential of your data and empower your organization to make data-driven decisions with confidence.