

# Digital Health and Telemedicine:

Research and Public Health Implementation



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# Message from the Chief Executive Officer

It is with great pride and passion that I present the contributions of Rocket Health in this report themed 'Digital Health and Telemedicine: Research and Public Health Implementation'. Our commitment to utilizing cutting-edge technology to improve healthcare outcomes and drive meaningful change in populations has been at the forefront of our mission as a company.

In recent years, we have witnessed the incredible potential of digital technologies to disrupt and transform traditional healthcare delivery models, enabling us to tackle some of the most pressing public health challenges of our time. From the deployment of Artificial Intelligence (AI)-powered chatbots to assist in disease diagnosis to the use of mobile-based platforms to support continuity of care even amidst pandemics and health emergencies, our team is dedicated to exploring new and innovative ways to leverage digital tools to create sustainable impact in

communities.

Our focus on being the leader of innovation in digital health in Africa is unwavering. We are constantly pursuing the design and development of technology-enabled solutions that are value-based and efficient, seeking to drive sustainable change throughout the entire healthcare value chain. We believe that our continued investments in research and development will have a lasting impact on the field, helping to shape the future of healthcare delivery and advance the standard of care for communities around the world.

As we look ahead, we are committed to continuing to push the boundaries of what is possible in digital health and telemedicine. Whether it is through our research projects, public health implementations, or the development of new tools and technologies, our goal remains the same: to deliver healthcare services that are accessible, effective, and efficient for all.

I would like to extend my heartfelt gratitude to our valued partners who continue to support us in this journey and the team at Rocket Health for their unwavering dedication. It is through our collective efforts that we can build a resilient healthcare system

and create a healthier future for all.

**Dr. Davis Musinguzi**CEO

# **Executive Summary**

Rocket Health is a private digital health and telemedicine company headquartered in Kampala-Uganda, leading innovations in the digital health and telemedicine space, leveraging cutting-edge technologies to drive advancements in public health and research initiatives.

Our work is driven by a commitment to utilising technology to improve public health outcomes and address unmet needs in the community. To this end, Rocket Health implements projects that utilize digital technologies such as chatbots, artificial intelligence tools, information management systems, and a 24/7 call center to support continued access to quality healthcare and social and behavioral change communication for improved healthcare outcomes in communities.

In addition to the use of digital technologies, Rocket Health is also dedicated to evidence-based research. The company has executed a number of institutional review board-approved studies, which assessed the feasibility, accessibility, and adoption of technological tools in Reproductive, Maternal and Child Health, Family planning, and mental health among others. Furthermore, Rocket Health has participated in numerous national and international conferences and has published some of its work in highly ranked and peer-reviewed journals.

Rocket Health has been and continues to be the leading player in the field of digital health and telemedicine, with a commitment to improving public health outcomes and addressing unmet needs in the community. Our innovative use of digital technologies, coupled with the focus on evidence-based research, sets us apart in this field and positions us as a leader in the drive toward better health outcomes for all.









Our work is driuen by a commitment to utilising technology to improve public health outcomes and address unmet needs in the community.

## **Partnerships**

Over the years, Rocket Health has established a robust network of partnerships with various stakeholders, including funding agencies, government entities, implementing partners. international and local research institutions and the private sector, spanning a range of thematic areas, including social behavioral

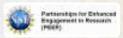
change communication, HIV/AIDS, HIV self-testing, reproductive health including men's involvement in sexual health and young people's access to sexual and reproductive health and rights (SRHR), COVID-19, malaria and other Non-Communicable Diseases (NCDs) among others.





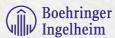
















































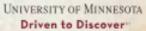






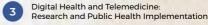






This has allowed the company to expand its impact and drive evidence-based public health outcomes through cutting-edge research and innovative programming.

These partnerships enable us to design and implement public health projects and research work on a large scale and have been instrumental in driving the company's overall success and better health outcomes for all.



# Digital Tools & Services

# Hotlines

Toll-free voice call-in (Hotlines) have been deployed for teleconsultations for beneficiaries in communities to have remote access to healthcare providers that they would otherwise have had to travel long distances to access. In addition, the hotlines are used for dipstick surveys when collecting feedback from communities and for routine follow-ups on health services utilization or completion of any other health facility events among beneficiaries. The hotlines are manned by health workers (counselors, medical doctors, pharmacists) that are wellversed in the local languages widely spoken in Uganda.





## SMS shortcode

This two-way message interactive platform has been deployed in communities to support health information dissemination on varying health topics relevant to specific projects. In addition, the messaging platform is utilized to send reminders to beneficiaries and also collect feedback (surveys).

The two-way messaging allows users to have their inquiries answered in real time and also supports the use of local languages.

## Chatbots

These are automated and interactive platforms that we have previously deployed through social media platforms like Facebook. Examples of chatbots we have deployed included 'Mirembe' a symptom checker artificial intelligencepowered tool that would assist in selftriage and offer recommendations for one's health issues, the HIV Self-test kit distribution chatbot to assist in utilization of HIV self-testing services targeting youths and key populations and the Obulamu chatbot, an automated interactive tool embedded within Facebook messenger that supports easy access to health information across different health thematic areas including HIV/AIDs. Maternal, newborn and child health messages, Cervical cancer and Family Planning among others.



Mirembe chatbot

# Social Media

As a tool to reach a large critical mass/audience, Rocket Health leverages social media platforms (Facebook, Twitter, Linkedin, Instagram, Whatsapp, etc) as a channel for health information dissemination. These platforms allow for targeting message reach through boosting and paying for ads. Social media platforms have enabled us to reach the youth and other audiences previously left out with the traditional media (radio, newspapers and Television).

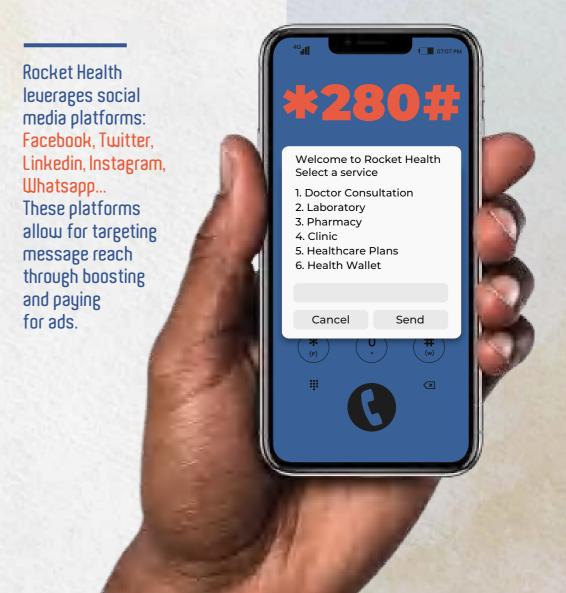


# Mobile Phone Applications

We have deployed mobile phone applications in different use contexts and to achieve specific objectives, for example, we have designed mobile applications targeting key and priority populations that provided a repository of Pre-Exposure Prophylaxis (PrEP) providing health facilities for easy access.

## USSD Code

Through our \*280# USSD shortcode, we have pivoted this offline channel for targeted marketing and point contact for other Rocket Health services. Users can access all our services including doctor consultations, remote laboratory sample pickups, pharmacy deliveries, healthcare plans or saving with the Health wallet via the USSD code.



# Interactive Voice Recordings (IUR)

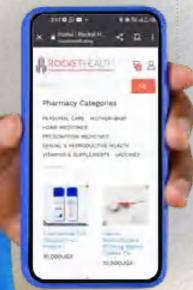
Pre-recorded voice messages can be delivered through voice calls known as interactive voice recording (IVR). We leverage IVR in health message communication.



## E-Pharmacy and Mobile Laboratory

Rocket Health operates an online pharmacy service that can be accessed via the e-Shop, www.rockethealth.shop,

or any other channels (voice, text) that allow beneficiaries to have their prescriptions filled and medicines delivered to their locations. In addition, the **mobile laboratory services** involve our Lab technicians going to the clients' location to pick up the samples and have them processed with results shared via email and followed up with a voice call to discuss them with the healthcare worker.





# Digital Health Projects

# USAID Social Behavioral Change Activity (SBCA)

Funding Agency	United States Agency for International Development (USAID)
Implementing Partner(s)	John Hopkins Center for Communications Program, World Vision, Busara Center for Design Economics, Women Influencing Health, Rule of Law and Education (WI-HER)
Focus Area	HIV/AIDS, Global Health Security, Maternal and Child Health, Family Planning, Malaria, Nutrition and WASH
Geographical Coverage	Nationwide
Implementation period	2020 - 2025



#### **Project Brief**

The USAID SBCA project is a 5-year above site project led by John Hopkins Center for Communications Program and has consortium partners including Rocket Health, World Vision, Busara and WI-HER. Rocket Health is the project's lead technology and health information systems partner. A cross-cutting project supporting all thematic areas, including HIV/AIDs, Maternal and Child Health, Family Health, Gender, and Global Health Security. SBCA is an above-site activity whose main scope of work is to offer technical assistance, mentorships, training, and piloting innovations in the space of social, and behavioral change that can be cascaded or scaled at district, regional, or national level by supported partners.

#### **Achievements/Milestones**

- Designed, developed, and deployed innovative digital tools, including a toll-free hotline, prepaid SMS short code, mobile applications, and automated chatbots leveraged for health information dissemination.
- Oriented Civil Society Organisations in the South-Western Districts of Kyenjojo, Kabarole, and Kyegegwa on the PrEP Uganda mobile application, the mobile application that collects users' demographic information, allows users to interact with healthcare professionals via chat and provides information on PrEP service points.
- Supported USAID-Family Planning Activity with community engagement and feedback collection on family planning within its 11 implementing districts of Uganda. A total of 3,522 inquiries were handled in FY22 from the districts of Buliisa, Bundibugyo, Butambala, Gomba, Kibaale, Kiryandongo, Kyankwanzi, Kyegegwa, Kyenjojo, Ntoroko, and Rakai.
- In FY22Q3, started leveraging mobile phone-based stepping stones approach and reached over 201 adolescents and peer leaders with awareness messages on varying topics including family planning, HIV prevention, and gender-based violence, among others on a weekly schedule. At the end of each week, the adolescent girls take part in a quiz to assess knowledge transfer and acquisition on the weekly topic engaged.

3,522

Total number of inquiries that were handled in FY22 from the districts of Buliisa, Bundibugyo, Butambala, Gomba, Kibaale, Kiryandongo, Kyankwanzi, Kyegegwa, Kyenjojo, Ntoroko and Rakai.

201

Adolescents and peer leaders reached with awareness messages on uarying topics after we started leueraging mobile phone-based stepping stones approach in FY22Q3



Joseph Ssenkumba, the Projects Officer at Rocket Health, giving a health talk to beneficiaries of health services at Seeta Nazzigo HC3 in Mukono district.



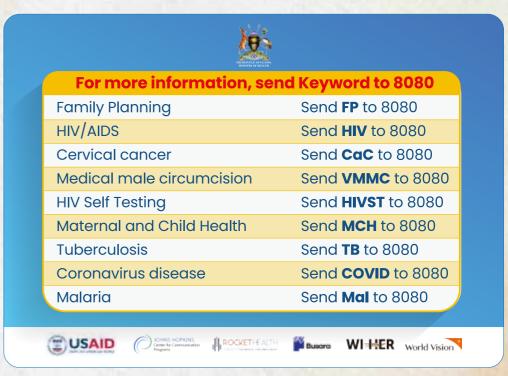
Dashboard on trends of downloads and use of PrEP Uganda Mobile App

#### **Ongoing Activities of the Project**

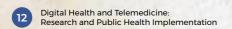
- Scaling up digital health initiatives including hotline, chatbots and SMS short code to other regions and new health thematic areas through mentorships and pilot projects to create value for scale by the partners.
- Offer technical support, training and mentorships to partners to increase utilization & adoption of digital technologies in behavioral change.



The SBCA project operates a 24/7 toll-free hotline to support communities with easy access to credible health information, referrals and linkage to health services.



The SBCA project operates a 24/7 SMS short code to support communities with easy access to credible health information, referrals and linkage to health services.





# USAID Regional Health Integration to Enhance Services—North, Lango (RHITES—N, Lango)

# Funding Agency United States Agency for International Development (USAID) Implementing Partner(s) John Snow Inc, CUAM doctors of Africa, AMREF, Another Option, The Medical Concierge Group Focus Area HIV/AIDS & TB, Maternal and Child Health, Family planning, Nutrition, WASH, Gender, Youth and Adolescent Health Geographical Coverage Northern Uganda-Lango subregion Implementation period 2018 - 2023

#### **Project Brief**

The USAID RHITES-North, Lango is a 5 years (July 2018 - June 2023) project led by John Snow Inc with consortium partners including CUAM doctors of Africa, AMREF, Another Option, and Rocket Health. As the digital health partner, Rocket Health offered essential technology-oriented techniques to reach the 2.1 million residents of the Lango subregion of Uganda by supporting mobile health (mHealth) technology platforms. Because of the region's already compromised healthcare infrastructure due to the two decades of conflict in the area, Lango's health measures are less progressed than national norms. For instance, Lango has a higher reported national rate of 10.1% for HIV seroprevalence than the national average (7.3 percent).



#### **Achievements/Milestones**



Provided technical assistance to local partners on integrating digital health interventions to enhance HIV/AIDS and TB programs (e.g. by promoting health facility appointment adherence through appointment reminders, viral load testing, and community retail pharmacy refills).



### Created and used social media (Facebook)

to raise awareness of various healthrelated issues, including general COVID-19 awareness; COVID-19 vaccination; HIV testing, treatment, and the advantages of adhering to antiretroviral therapy (ART); different service delivery models (DSDM); STDs/STIs, family planning services; and other project digital health platforms.

4,779

Supported 4,779 DREAMS Adolescent Girls and Young Women [AGYW] through the use of digital tools to support access to credible health information and referral for services for family planning, HIV/AIDs awareness, and nutrition.



Promoted the hotline and SMS platforms for access to information on COVID-19, HIV/AIDS, and WASH, particularly debunking myths, vaccination, and treatment access to reach

#### 145,078 beneficiaries.

COVID-19 vaccination to improve the region's vaccination status.



**Used other social media platforms, such as WhatsApp,** to disseminate health information and have one-onone interactions with doctors. Content in the form of videos and infographics was shared, resulting in audience interactions and buzz.

# The Digital Health Compendium

Funding Agency	United States Agency for International Development (USAID)
Implementing Partner(s)	Population Reference Bureau
Focus Area	Reproductive Health
Geographical Coverage	Sub-Saharan Africa
Implementation period	May 2021 - March 2022



Rocket Health in conjunction with Population Reference Bureau (PRB), under the Policy, Advocacy, and Communication Enhanced for Population and Reproductive Health (PACE) project supported by the United States Agency for International Development (USAID) set out to update and maintain the Digital Health Compendium.

The Digital Health Compendium is an essential tool that aims to bridge the gap between digital health innovations and their adoption in family planning programs. Family planning and reproductive health programs can benefit greatly from digital health innovations, as they provide unprecedented opportunities to improve services. However, the information on what works and what does not remains limited and scattered. Investments in digital health tools have expanded exponentially, making it increasingly important to have access to data and information on the challenges, opportunities, scalability, and results of these tools.

The Digital Health Compendium is a web-based platform designed to consolidate emerging information and data on the use of digital technology in family planning programs, providing policy and program decision-makers with insights into real-world applications of digital health, promising practices, challenges, and other lessons that can be applied to current and future programs. This helps inform the adoption and scale-up of successful approaches, enabling decision-makers to make more informed choices about using digital technology in family planning programs.

A total of twenty-two (22) new case studies were profiled and added to the Digital Health Compendium and a dissemination workshop with implementing partners, social entrepreneurs, innovators, researchers and Ministry of Health and ICT officials was held in March 2022 at Fairway Hotel in Kampala.



The Digital Health
Compendium is an
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The Digital Health Compendium is a web-based platform

new case studies
were profiled and
added to the Digital
Health Compendium



Compendium dissemination workshop

The featured case studies provide comprehensive information and data on using digital health tools in family planning programs. This information can be used to improve the delivery of reproductive health services and make it easier for decision-makers to understand the potential and limitations of different digital health tools.

Overall, the Digital Health Compendium is an essential tool that can play a crucial role in advancing greater adoption of digital technology in family planning programs and improving the delivery of reproductive health services in Sub-Saharan Africa.

#### **Call to Action**

Do you or your organisation have a digital intervention enhancing reproductive health programs, especially in Sub-Saharan Africa?

#### Contact us at:

https://fpdigitalsolution.org/contact/



# Rocket Health Gender Equality Seal for Private Enterprises Certification Programme

Funding Agency	United Nations Development Programme (UNDP)
Implementing Partner(s)	Private Sector Foundation Uganda
Focus Area	Gender Equality
Geographical Coverage	Work-place
Implementation period	2021

In May 2021, The Medical Concierge Group (Rocket Health) was engaged by Private Sector Foundation- Uganda (PSFU) to be part of the United Nations Development Programme (UNDP) Gender Equality Seal for Private Enterprises Certification Programme. The gender Equality Seal Program is a symbol that recognizes companies for promoting gender equality and empowering women in the workplace.

Under this program, organizations are facilitated to develop and implement gender equality policies. Surveys are conducted to review organisations' recruitment, remuneration, gender representation, and sexual harassment among others.

The Medical Concierge Group, through this program, contributed to the attainment of the 2030 Agenda for Sustainable Development and the associated Sustainable Development Goals (SDGs). The program enabled the company to promote gender equality and women's employment.



#### The purpose and objectives of the Gender Equality Seal for Private Enterprises Certification Programme included the following:

- To provide the required information for UNDP to conduct a due diligence process and risk analysis.
- To create a Gender Equality Committee (GEC) that would lead and monitor the program's implementation.
- To give feedback to the program, including but not limited to, the benchmarks, reports, evaluation process, selfassessment and opinion survey.



#### **Achievements/Milestones**

#### a. Rocket Health Gender Equality Policy

In Jan 2022, the Rocket Health gender equality committee developed the company'sgender equality policy. The Gender policy aims at promoting gender equality and addressing any gender-based discrimination or bias within the workplace. The purpose of a Gender Equality Policy is to ensure that all individuals, regardless of their gender, have equal opportunities for employment, promotion, and professional development within the organization and to eliminate discrimination and bias on the basis of gender.

#### b. Rocket Health Sexual Harassment Policy

Following the Gender Equality Survey that was carried out among staff, part of the action plan was to have a Sexual Harassment Policy which the Gender Committee spearheaded. The use of the sexual harassment policy is to create a safe and respectful working environment which can help to create a culture of respect and inclusion in the workplace, where all employees feel comfortable and safe at work.

Rocket Health
is committed to
promote gender
equality and create
a safe and inclusive
workplace for all
employees

The use of the sexual harassment policy is to create a safe and respectful working environment which can help to create a culture of respect and inclusion in the workplace

#### c. Sexual Harassment Training

In May 2022, In reference to the Rocket Health sexual harassment policy, the company was tasked to conduct sexual harassment training. The purpose of the sexual harassment training was to provide information so that staff understand what is needed to create a safe work environment. Some of the topics that were handled during the training include; a current understanding of sexual harassment in the workplace, where questions like Sexual harassment is often exaggerated, Wearing provocative clothing is a form of sexual, Sexual harassment often happens due to what women wear or behave among others.



Rocket Health received awards from UNDP and the Ministry of Gender Labour and Social Development for excelling in implementing gender equality practices within the workplace.





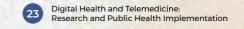
Some of Rocket Health's Awards

Rocket Health plans to share some achievements and lessons learned with other organizations and participate in networks and forums that promote gender equality.

Rocket Health is committed to promote gender equality and create a safe and inclusive workplace for all employees and we urge all employees in different organizations to take an active role in promoting equality with workplaces.

Visit this link for more information about the Rocket Health gender equality seal program

https://www.RocketHealth.co.ug/tag/undp-uganda-gender-equality-seal/





# **Acceleration Programs**

1 MAKING MORE HEALTH ACCELERATOR
PROGRAMME: "SCALING DIGITAL TECHNOLOGIES
FOR IMPROVED CHRONIC CARE"

Funding Agency	Boehringer Ingelheim (BI) and Ashoka Africa
Focus Area	Chronic Care Management
Geographical Coverage	Nationwide
Implementation period	2021 - 2023

Imagine being diagnosed with a chronic illness and unable to access the care you need, not just due to a lack of resources, but also because of the very real barriers to healthcare that come with living in rural areas. Unfortunately, this is a reality for many patients with chronic illnesses. But, with the launch of the "Scaling Digital Technologies for Improved Chronic Care" project, that reality is set to change.

Rocket Health is leading the charge with a cutting-edge Chronic care program that leverages digital technologies to improve access to quality, affordable, and reliable care for patients with chronic illnesses such as diabetes, hypertension, sickle cell, mental illnesses and many others. This program offers a wide range of services that truly can change the lives of patients for the better.



Dr. Pamela Charlotte Acom speaking to Making More Health (MMH) delegates at the Rocket Health call center

With a 24/7 telehealth center that allows patients to access medical advice and consultation from the comfort of their own homes, mobile laboratory sample pickups, last-mile medical services delivery, and periodic medicine refills making healthcare access easier.

The project also focuses on empowering patients through education and community engagement (medical camps and community outreaches). The program provides patients with health information and resources on the prevention and management of their own health. Through these initiatives, the program has increased awareness on chronic illnesses in the local communities and improved patients' access to quality medical care.



24/7 telehealth center



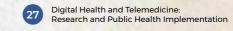
mobile laboratory sample pickups



last-mile medical seruices deliuery and periodic medicine refills



The MMH Health Camp organized by Rocket Health in Nakasero Market, October 2022



The program has already seen significant success, with client base growing from 804 at the start of the year to 2277 as of Dec 2022 and this can be attributed to the **opening up of a new hub in Gayaza**, enabling the program to reach over 15 new locations in Wakiso district and serve more patients.

It is worth mentioning that the success of this program would not have been possible without the support of our partners; Boehringer Ingelheim (BI) and Ashoka. We are grateful for the financial support, mentorship, experience sharing and networking opportunities that have been availed during the implementation phase. With their contributions, the program was able to achieve its goals and make a real difference in the lives of patients with chronic illnesses.

The project also focuses on empowering patients through education and community engagement

#### **Call to Action**

Investing in this project is not just an investment in healthcare, it's an investment in the lives of some of the most vulnerable members of society. With the potential to change the lives of thousands of patients, this program is a gamechanger.

#### Join us

Located along Gayaza-Kalagi Road,

**Opposite Nesta Petro Station** 

In revolutionizing the healthcare landscape for patients with chronic illnesses in Uganda.

Client base growth From 804 at the start of the year to 2277 as of Dec 2022



# 2 INTERNATIONAL TELECOMMUNICATION UNION (ITU) COVID-19 DIGITAL INNOVATION CHALLENGE

Funding Agency	International Telecommunication Union (ITU)
Partner(s)	MTN-Pulse, In Their Hands Project (ITH), Population Services International-PSI Uganda, PATH Uganda
Focus Area	Sexual and Reproductive Health (SRH)
Geographical Coverage	Nationwide
Implementation period	April 2022 - November 2022











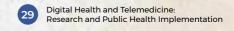


Rocket Health was among the winners of the 2021 COVID-19 Digital Innovation Challenge organized by the International Telecommunication Union (ITU) supported by United Nations Office for South-South Cooperation (UNOSSC). The challenge aimed to identify innovative digital solutions from the global South that could help communities deal with the pandemic and contribute to organizations' focus on South-South and Triangular Cooperation using digital technologies.

Rocket Health's telemedicine and lastmile service delivery platform helps young people access quality and affordable Sexual and Reproductive Health (SRH) services. The platform integrates digital technology in the last-mile delivery of SRH services within peri-urban suburbs in Uganda. Through the award, Rocket Health received mentorship support, capacity-building training, access to the Digital Innovation Ecosystem Network and seed funding to scale our impact into other Global South countries through South-South and Triangular Cooperation. The project was implemented from April 2022 to November 2022.

The mentorship support provided as part of the award was deemed a key factor in the success of the program. Rocket Health received support from Preetam Singh Heeramun, a R&D Technical Lead at the National Air Traffic Services (NATS) who served as a Lead Mentor. Preetam played a crucial role in Rocket Health's progress by providing holistic business support and guidance on refining the value proposition with an emphasis on privacy and convenience, market sizing and targeted marketing, retaining clients, enhancing customer experience, creating and maintaining strategic partnerships, and developing expansion strategies.

As a result of the program, Rocket Health's SRH services saw significant growth in market traction and geographical coverage. At project inception in April 2022, Rocket Health was targeting a monthly average of 800 clients with SRH services and products, but by the end of the program, they were serving a monthly average of 1,478 clients. A new hub was opened in Gayaza, a suburb in the Wakiso district, which served over 15 new parishes.



Furthermore, Rocket Health leveraged digital platforms to create awareness and promote Sexual and Reproductive Health and Rights (SRHR) among young people. We used a toll-free SMS platform (shortcode 8080) to disseminate information on key SRHR topics translated into local languages and enabled two-way messaging for 24/7 access to medical professionals for support and linkage to other services. We also used social media platforms such as Twitter, Instagram, Facebook, and LinkedIn to disseminate educational and service promotional content, reaching over 165,888 users.

In addition to these successes, Rocket Health formed strategic partnerships with key players in the sexual and reproductive health space to increase their coverage and efficiently deliver affordable SRH services in Uganda. These partnerships included In Their Hands (ITH) project by Aga Khan Foundation and Triggerise to extend SRH services to adolescent girls and boys (15-19 years), Population Services International (PSI) Uganda, PATH Uganda, MTN-Pulse among others.

POCKET HEALTH
INDIRING TRIBUTIANAIN

DOPE DEALS
TOPE LIFE

TOPE LIFE

TOPE DEALS
TOPE LIFE

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Rocket Health helps young people access quality and affordable Sexual and Reproductive Health (SRH) services. At Kyambogo University bazaar in 2022, we ensured that these services were brought closer to students.

800 Auerage monthly number of targeted clients at project inception in April 2022

1,478
Auerage monthly
number of clients
serued by end of
project

8080

The 24/7 toll-free shortcode SMS platform used to disseminate information on key SRHR topics

Furthermore, the project's emphasis on experience sharing and research has enabled Rocket Health to continuously improve our work and better serve the populations we work with.

By collaborating with other social entrepreneurs and innovators from the Global South and promoting South-South Development, the project is not only addressing the immediate needs of young people but also contributing to the development of a culture of innovation that promotes the adoption of telemedicine and digital technologies to enhance population health.



Dr. Pamela Charlotte Acom at the GSSD Expo - ITU Project, in Thailand

The project's innovative approach to providing young people with access to affordable and quality SRH services through telemedicine and last-mile service delivery has demonstrated the potential of digital technologies to improve the health and well-being of marginalized communities.

As the world continues to grapple with health emergencies, it is more important than ever to support and scale digital health solutions like Rocket Health that can help improve the health and well-being of marginalized communities.



ITH - In Their Hands (ITH) project by Aga Khan Foundation and Triggerise was organised to extend SRH services to adolescent girls and boys (15-19 years)

#### **3** AFRICAN IMPACT CHALLENGE

Funding Agency	The BRIDGE, Health Innovation Hub and ICUBE
Implementing Partner(s)	African Higher Education Collaborative (Ashesi University, African Leadership University, Addis Ababa University, African Institute for Mathematical Sciences
Focus Area	Chronic care program and mentorship
Implementation period	September 2022 - June 2023

The African Impact Initiative is an acceleration program supported in collaboration with 3 of the University of Toronto's campus-linked accelerators (The BRIDGE, Health Innovation Hub and ICUBE) and the support of the Mastercard Foundation, providing funding, incubation and implementation support to the Rocket Health Chronic care program. The challenge is run in collaboration with the African Higher Education Collaborative (Ashesi University, African Leadership University, Addis Ababa University, African Institute for Mathematical Sciences, AMREF, Kwame Nkrumah University of Science and Technology, Moi University and University of Cape Town).

The implementation phase of the program began in September 2022, with a focus on market sizing and niching informed by learnings, specific iterations and improvements made gained during incubation. It will conclude in the summer of 2023 with a graduation ceremony at the University of Toronto.

#### **Achievements**

- Developed customer surveys to be deployed in better understanding and segmenting our end-users.
- Rocket Health graduated from the incubation phase on December 18, 2022, with the ceremony happening at the African Leadership University campus in Kigali.

#### **Next Steps**

- Carry out the customer needs survey.
   The study seeks to comprehend the following:
  - How non-customers are currently meeting their health services
  - Why past leads were not closed
  - Why past customers were lost
  - What current customers like and what they want improved
- 2. Analyze the results of the customer needs survey.
- 3. Develop the sales and marketing strategy for the business.
- 4. Develop a scaling plan for the business.



Dr. Louis Kamulegeya (centre) receiving a Graduation Certificate on behalf of Rocket Health, at the Africa Impact Challenge Start-up Graduation Ceremony in Kigali-Rwanda

#### **4** HEALTH TECH HUB AFRICA

Funding Agency	Novartis Foundation
Focus Area	Bridge for Billions
Geographical Coverage	Mentorship and Entrepreneurship Training
Implementation period	January 2022 - December 2022

The Healthtech Hub Africa was an online acceleration program developed by Bridge for Billions funded under the Novartis Foundation and had support from the Norrsken foundation. The program started in January 2022 and ended in December 2022.

The program aimed at fostering innovation and community for health tech in Africa, training in business development, coordinating activities to generate partnerships, and creating funding opportunities.

Rocket Health was selected among other 20 start-ups from Africa to participate in the inaugural program where we received mentorships in innovation programs, expert sessions, investment readiness and partnerships for health tech accelerators, entrepreneurship group sessions, and the health tech summits.

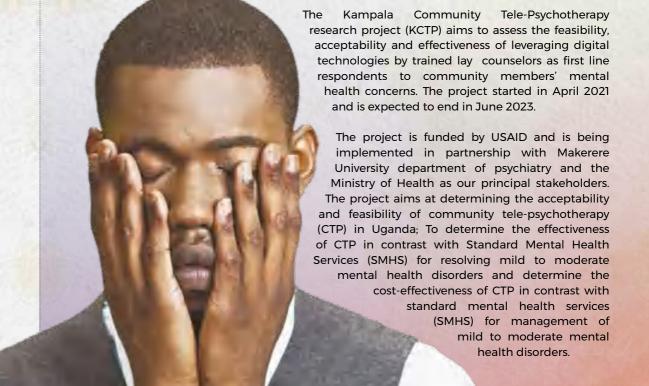
Rocket Health's successful pitch during a masterclass got to be selected to present among the 12 companies in Africa to present to investors.

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inaugural program

## Research Studies

# 1 USAID DIV TELEPSYCHIATRY PROJECT THE KAMPALA COMMUNITY TELE-PSYCHOTHERAPY STUDY

Funding Agency	USAID
Implementing Partner(s)	Makerere University Department of Psychiatry and the Ministry of Health
Focus Area	Mental Health
Geographical Coverage	Central Region
Implementation Period	April 2021 - June 2023





Focused Group Discussion on mental health in Kamwokya, downtown Kampala

The proposed Community Tele-Psychotherapy center at Rocket Health will allow young people (15-30 yrs) in Kampala district to access mental health information, counseling, and referrals delivered by trained lay counselors remotely via voice calls, SMS, and social media. This will be coupled with referrals to existing government mental health units.

#### **Next Steps**

- The project is now in the implementation phase where we shall have a technical setup.
- Recruit 300 individuals in selected communities, and offer them the tele-psychotherapy services.
- Conduct mental health awareness campaigns for community sensitization and mobilization both onsite and online.

#### **Achievements**

- We have successfully mapped out prospective beneficiaries of the tele-psychotherapy program and have had entry meetings with the communities.
- We have conducted focus group discussions with different audiences including students, religious leaders, community leaders and slums among others to gain insights on what their mental health problems are and identify opportunities for digital technologies.

# 2 ISLAMIC DEVELOPMENT BANK (ISDB) TELEPSYCHIATRY STUDY

Funding Agency	Islamic Development Bank (ISBD)
Focus Area	Mental Health
Geographical Coverage	Central Region (Kampala)
Implementation period	2021 - 2023



A Rocket Health led USD 100,000 grant from the Islamic Development Bank (ISBD) that is looking at assessing the adoption and effectiveness of using digital technologies in the delivery of mental health support and care in communities. The grant was awarded in 2021 and will be implemented until 27 April 2023 mainly within the suburbs of Kampala. To date, the project has mapped out the target beneficiaries that will primarily be within a workplace setting.

The project will leverage an online mental health longitudinal follow-up tool called neuroflow (link here: https://www.neuroflow.com/request-a-demo/) and will first be piloted by Rocket Health staff.

A mental health specialist (psychiatrist) will triage and schedule staff found with any mental health symptoms for follow-up and use the online tool (neuroflow) to tailor remote mental health support and programming.

# 3 TECHNOLOGY ASSISTED DELIVERY OF HIV SELF-TESTING KITS STUDY

Funding Agency	University of Minnesota Academic Health Center's Global Health Seed Grant program
Focus Area	HIV/AIDS
Geographical Coverage	Central Region (Kampala)
Implementation period	2019 - 2020

A Single-Arm pilot study of a technologyassisted HIV Self-testing intervention in Kampala, Uganda that involved using a 24/7 medical call center to coordinate access and delivery of HIV self testing kits and also support on use and results interpretation. We developed and pilot tested a 3-month HIV self-testing intervention called HiSTEP ("HIV Self-testing Engagement Project") among 95 adult (18+years) atrisk (condomless sex < 3 months) adults in Kampala, Uganda. HiSTEP leverages theoretically grounded (in the Information-Motivation-Behavioral Skills model) text messages, a telehealth centre with live support, and "last-mile" HIV self-testing kit delivery to a location chosen by the participant.

Nearly 94% of participants were retained at month 3. HIV self-testing was highly acceptable across age and gender groups (94% very satisfied), although older women had slightly lower acceptability ratings (92% very satisfied). Only 13% of participants used HIV self-testing prior to enrollment. Over the 3-month study period, 86% of participants ordered a total of 169 HIV self-testing kits (69% for participant use; 31% for use by others). Findings showed that the intervention approach taken in HiSTEP may be particularly valuable for engaging at-risk Ugandan adults in HIV self-testing using a novel technology-assisted promotion and delivery method.

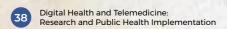
Link to the journal publication: https://pubmed.ncbi.nlm.nih. gov/34453646/



Study nuclued using a

24/7
medical call center
to coordinate access
and delivery of HIU
self testing kits





# 4 POINT OF CARE TESTING FOR HIV AND STD AMONG MEN (MEGAPOC) STUDY

Funding Agency	University of Minnesota Academic Health Center's Global Health Seed Grant program
Focus Area	HIV/AIDS and STDs
Geographical Coverage	Central Region (Kampala)
Implementation period	2019 - 2020

This study integrated community outreach health activities targeting men at gaming/betting centers with a telehealth call center to coordinate on referrals and linkages. We offered point-ofcare HIV and syphilis testing for men located at five gambling centers in Uganda and assessed HIV risky sexual behavior. Among 507 men, 0.8% were HIV-positive and 3.8% had syphilis. Risky sexual behavior included condomless sex with partner(s) of unknown HIV status (64.9%), having multiple sexual partners (47.8%), engaging in transactional sex (15.5%), and using illicit drugs (9.3%). The majority at 64.5% were non-alcohol consumers, 22.9% were moderate users, and 12.6% had hazardous consumption patterns. In 12 months of follow-up, the incidence rate of syphilis was 0.95 (95% CI: 0.82-1.06) among 178 men. Thus, men in Sub Saharan Africa (SSA) have a high prevalence of syphilis and risky sexual behavior which should be more effectively addressed to reduce the risk of HIV acquisition.

#### Link to the journal publication: https://bit.ly/3RFOXeU



Men in Sub Saharan
Africa have a high
prevalence of syphilis and
risky sexual behavior which
should be more effectively
addressed to reduce the
risk of HIU acquisition.



One of the flyers that were printed and used during the MEGA-POC study

#### **5** REHEAT STUDY

Funding Agency	The National Academies of Sciences, Engineering, and Medicine
Focus Area	SRH/Family Planning
Geographical Coverage	Central Region (Kampala)
Implementation period	2019 - 2020

A Single-Arm pilot study of a technology-assisted HIV Self-testing intervention in Kampala, Uganda that involved using a 24/7 medical call center to coordinate access and delivery of HIV self testing kits and also support on use and results interpretation. We developed and pilot tested a 3-month HIV self-testing intervention called HiSTEP ("HIV Self-testing Engagement Project") among 95 adult (18+ years) atrisk (condomless sex < 3 months) adults in Kampala, Uganda.

REPRODUCTIVE
HEALTH EMPOWERMENT
THROUGH TELEHEALTH
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Improving Meris Family
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Twishealth

Pullup banners were some of the promotional materials used to disseminate information during the REHEAT study. We had them done in both English and Luganda to have a wider audience reach.

HiSTEP leverages theoretically grounded (in the Information-Motivation-Behavioral Skills model) text messages, a telehealth centre with live support, and "last-mile" HIV self-testing kit delivery to a location chosen by the participant.

Nearly 94% of participants were retained at month 3. HIV self-testing was highly acceptable across age and gender groups (94% very satisfied), although older women had slightly lower acceptability ratings (92% very satisfied). Only 13% of participants used HIV self-testing prior to enrollment. Over the 3-month study period, 86% of participants ordered a total of 169 HIV self-testing kits (69% for participant use; 31% for use by others).

Findings showed that the intervention approach taken in HiSTEP may be particularly valuable for engaging atrisk Ugandan adults in HIV self-testing using a novel technology-assisted promotion and delivery method.

Link to the journal publication:

https://link.springer.com/ article/10.1007/s10461-021-03449-9

# Conferences, Publications & Workshops

#### **CONFERENCES**

In 2022, Rocket Health/Rocket Health was part of a number of public platforms at the national level where we shared experiences and learnings from implementing digital health and telemedicine solutions in Uganda. In addition, staff presented abstracts at national conferences and published papers in peer-reviewed journals where knowledge and results from study implementations were shared with wider audiences. Highlighted below are some of the platforms we engaged with during 2022.

#### 1 The 16<sup>th</sup> Joint Annual Scientific Health Conference (JASH) - 2022

Which took place at Speke Resort Munyonyo, saw Rocket Health being represented with a keynote speech on the role of digital technologies in the current delivery of healthcare in Africa at large. In addition, Happy Banonya presented an oral abstract on 'Leveraging digital tools to harness community feedback and inform program design during the COVID-19 pandemic response in Uganda'.

#### 2 9th National Healthcare Quality Improvement Conference 2022

Rocket Health was effectively represented by two exciting abstracts at the 2022 National QI conference at Speke Resort Munyonyo. Colleagues Sharon Okose and Margret Awori had oral and abstract poster presentations on 'leveraging the mobile laboratory services model to improve access to healthcare services during the COVID-19 pandemic' and on 'Patients' perception of quality; Analyzing client satisfaction surveys at a private telehealth company in Uganda respectively.



Sharon Okose making an Oral Presentation



Margret Awori making a Poster
Presentation at the conference

#### **WORKSHOPS**

In the year ended 2022, Rocket Health was part of several symposiums and workshops where we presented keynote speeches and took part in panel discussions. Examples of such forums are summarised below:

- Uganda Society of Architects Symposium 2022 took place at Silver Springs Hotel-Kampala where Dr. Louis Kamulegeya was an invited panelist.
- The 6<sup>th</sup> National Community Health Financing Conference at Golf Course Hotel-Kampala had Dr. Louis part of the panel sessions that discussed the role of technology in health insurance system functionality.
- 3. Kampala Geopolitics Conference 2022, which took place at Makerere University, had Dr. Louis Kamulegeya as part of the panel session that discussed Moving from Leadership to partnership for sustainable Global Health.

Dr. Louis Kamulegeya (right) was part of the Health panel session at the 2022 Kampala Geopolitics Conference

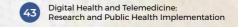


- **4. Kampala Innovation week** 2022 had Dr. Louis Kamlegeya participating in a panel session that discussed opportunities and links between health, Innovation, and Academia and how we can take better advantage of this.
- National Conference on Malaria 2022 Kampala: Changing Malaria Epidemiology, implications on Policy, strategy and programming in Uganda, under the USAID-SBCA project.
- 6. International Conference on Public Health in Africa (CPHIA) 2022 which took place in Kigali, Natasha Umuhoza participated in the Youth Pre-conference on Meaningful Youth Engagement for advancing Sustainable Health Security in Africa.
- 7. Global South-South Development Expo 2022 which took place in Thailand, on advancing South-South Triangular Cooperation for sustainable Covid-19 recovery: Towards building a Smart and Resilient Future. Represented by Dr. Pamela Acom.
- 8. Making More Health Together Convention (Nairobi/Ingelheim): Partnering for Impact represented by Natasha Umuhoza and Dr. Pamela Acom.
- Africa Gender symposium Botswana: Sharing experiences of the Gender Equality Seal training, represented by Dr. Simon Tumusiime.
- World Health Summit 2022 Berlin: Side event on how African entrepreneurs can complement Public Health institutions using digital health innovation in Africa. Represented by Dr. John Mark Bwanika.

#### **PUBLICATIONS**

Over the past years Rocket Health published a few peer-reviewed papers in international journals and these can be accessed below:

- Feasibility and Acceptability of a Ugandan Telehealth Engagement Platform for Informational Messaging on Modern Contraception: Pilot Cross-sectional Study. JMIR Form Res 2022;6(6):e34424) doi: 10.2196/34424.
- A qualitative study of mental health attribution, perceptions and care-seeking in Kampala, Uganda. S Afr J Psychiat. 2022;28(0), a1690.
   https://doi.org/10.4102/sajpsychiatry.v28i0.1690.
- Point-of-care testing for HIV and sexually transmitted infections reveals risky behavior among men at gambling centers in Uganda". International Journal of STD and AIDs. Volume 32, Issue 10 https://doi.org/10.1177/09564624211000973
- 4. HiSTEP: A Single-Arm Pilot Study of a Technology-Assisted HIV Self-testing Intervention in Kampala, Uganda. AIDS Behav. 2022 Mar;26(3):935-946. doi: 10.1007/s10461-021-03449-9



# New Projects



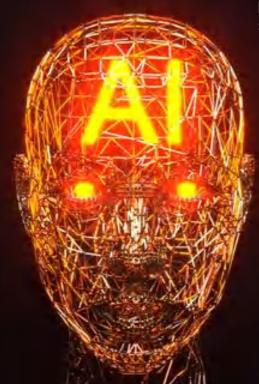
#### HASH PROJECT

A USD 38,928 grant awarded under the "Innovation Hub on Artificial Intelligence for Sexual, Reproductive and Maternal Health in Africa" a consortium project of IDRC•CRDI and the HASH Consortium (IDI, Sunbird Al and Makerere Al Lab). Premised on the background that financing and uptake of HIV prevention services, including PrEP is experiencing funding drawbacks from developmental partners as such a need for more innovative and tailored approaches in the roll-out of HIV prevention services in Uganda.

Rocket Health will be using machine learning and artificial intelligence to design a predictive module for the need of HIV prevention services and the likelihood of paying for the services.

Rocket Health will be using machine learning intelligence to design a predictive module

for the need of HIU prevention seruices and the likelihood of paying for the seruices.



#### 2 PATH HIV self-testing kit distribution in the private sector

Rocket Health pharmacy partnered with PATH-Uganda to distribute Mylan HIV-selftesting kits through the private sector. Rocket Health is leveraging its 24/7 medical call center and other online platforms like the e-shop (www.rockethealth.shop) to increase awareness and access to the Mylan HIV-self testing kits and use the last-mile pharmacy services for delivery.



A poster communicating Rocket Health's partnership with PATH-Uganda to distribute Mylan HIV-self-testing kits

## 2023 Onwards:

Harnessing routinely collected health data to unlock public health research and optimize medical services delivery in an African digital health Telemedicine setting.

With the expansion of Rocket Health countrywide and region-wide, there is an opportunity to expand and push the boundaries of digital health research focus to "Health and Healthcare in the Digital Age" with a specific emphasis on "Using data to understand and advance population health in Africa" by examining health and its determinants in the digital age and assessing, reviewing and documenting service delivery models for healthcare using digital platforms and tools. This is our New Research Agenda.

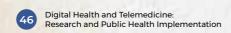
The proposed research agenda is designed to leverage the unique resources and opportunities offered by Rocket Health, including unparalleled access to a diverse population and potential research participants and the ability to effectively utilize routinely collected data from consultations and research. By identifying and addressing unmet needs within the community, increasing accessibility for lower-income populations, and supporting the national health system, our research projects aim to make a meaningful impact on the lives of those we serve.

To achieve this, we are seeking funding to support and grow our research team, increase our output, and establish partnerships with like-minded organizations locally and internationally. We have a proven track record of success in digital health research and are eager to build on that foundation to make even greater strides in improving population health.

We call on potential funders, implementing partners, researchers, academia, and policymakers to join us in this endeavor. Together, we can harness the power of digital health to drive positive change and improve the lives of individuals and communities in Africa.

#### Dr. John Mark Bwanika

Director, Research - COO Rocket Health





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