



2<sup>nd</sup> Webinar Series

Partnerships for Resilient  
Health Systems

Session report

# Digital Health

29<sup>th</sup> October 2020



**AHB**  
AFRICA HEALTH BUSINESS

This webinar is brought to you by Africa Health Business (AHB)

AHB is a pan-African advisory, consulting and investment firm that focuses on innovative partnerships to transform health in Africa. AHB promotes the growth of the private health sector in Africa to generate affordable, accessible, and quality healthcare for all.

# Speakers



**MODERATOR**  
Melissa Menke  
Founder and CEO,  
Afya Health



**KEYNOTE SPEAKER**  
Didier Nkurikiyimfura  
Director of Technology &  
Innovation,  
Smart Africa Secretariat



**PANELIST**  
Hila Azadzoy  
Managing Director, Global  
Health Initiative,  
Ada Health



**PANELIST**  
Paul Bhuhi  
Group Board Advisor,  
Broadreach



**PANELIST**  
Robin Njiru  
Business Lead-East Africa,  
Amazon Web Services



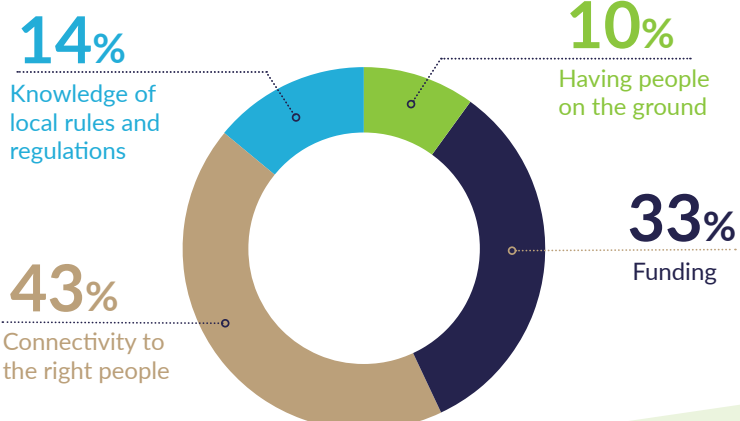
**PANELIST**  
Ada Mwangola  
Director Social & Political Pillars,  
Kenya Vision 2030

# Event Partners



# Webinar Poll Results

What are the biggest challenges when introducing a new solution in Africa?



36%  
Behaviour change and mind-sets of health leaders towards digital health

11%  
Training and preparedness of health workers

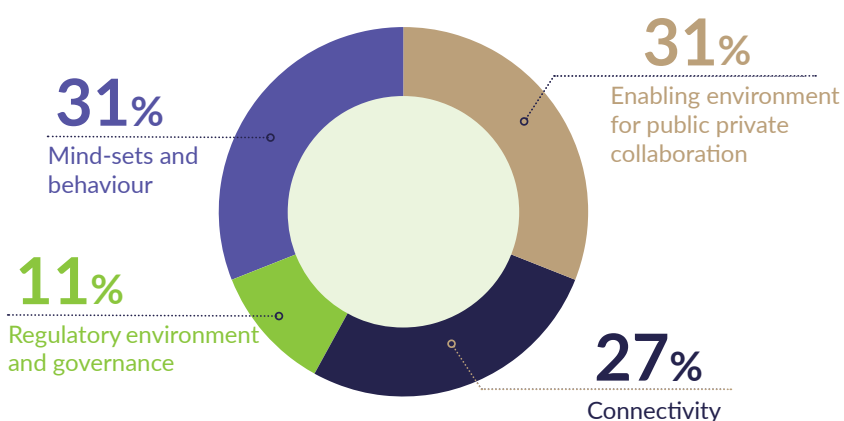
What step should be taken first to realize the potential of digital health in Africa?

31%  
Increase local R&D investments and the development of homegrown solutions

11%  
Locally designed community engagement strategies to drive acceptance

11%  
Creating an enabling regulatory environment

What do you see as the biggest challenge in digital health development in Africa?





MODERATOR

**Melissa Menke**  
Founder and CEO,  
Access Afya

Today we are talking about resilient health systems and partnerships, specifically related to digital health. This is a topic that is incredibly timely and is important to the work of every organisation in the African health sector.

Access Afya runs primary healthcare clinics across Kenya, as well as a virtual clinic in response to challenges around COVID-19. They also work on coaching and behavior change with patients. There are many creative partnerships that have been launched in response to the pandemic, but gaps remain.

When COVID-19 hit Kenya, we saw many different types of partnerships spring up. Initially people were joining webinars and WhatsApp groups, and these efforts eventually started to turn into genuine collaborations where businesses were pooling resources to deliver help. Access Afya started working with media groups to get good information into informal settlements, with recruiting firms to create non-biased myth busting services, and with community outreach programs to help identify the most vulnerable patients.

Have all of these partnerships that we've seen spring up made us more resilient? An argument in favor of this idea is that we've been able to fast track digital health innovation. For example, in Kenya, telemedicine providers now go through a rigorous licensing process, instead of operating within a gray area. On the other hand, pain points and fragmentation still remain. Escalation of patients from low-level primary care clinics into public center COVID-19 testing is still a challenge. Contact tracing sometimes works, but is certainly ripe for digital disruption. There is a need for improving healthcare financing and social safety nets so that the most vulnerable people do not have to miss out on essential health services just because they're going through another economic shock.

Each of our speakers today has a significant amount to offer on this subject and will share what they and their organisations are doing to build resilience and bridge gaps in the digital health space.



KEYNOTE SPEAKER

**Didier Nkurikiyimfura**  
Director of Technology &  
Innovation,  
Smart Africa Secretariat

Africa is the second most populated continent in the world, with over 1.2 billion people; it also has the youngest population. According to the African Economic Outlook Reports by the African Development Bank, Africa's GDP growth is expected to be 3.9% on average from now until 2022. A healthy population yields more economic dividends due to a more productive workforce. Healthy children become productive adults. The WHO Africa Regional Health Report estimated that for every 10% of increasing life expectancy at birth, there is a corresponding rise in economic growth of about 0.4% per year.

However, COVID-19 has heightened the perilous state of healthcare infrastructure in Africa. It's time to reset and reform healthcare systems across the continent in order to leapfrog the continent's current health services and improve health outcomes. Technology will assist Africa to leapfrog development of health services as well as creating well-functioning health systems for possible future health emergencies.

The vision of Smart Africa's alliance is to develop a single digital market by 2030. There is an urgent need to accelerate Africa's digitalisation and they have three strategic objectives to accomplish this:

1. To build affordable infrastructure to integrate the continent
2. To promote and facilitate doing business and investing across Africa
3. To accelerate the birth and development of a digital society

The development of digital health services contributes greatly to a vibrant society and Smart Africa is in consultation with stakeholders toward more concrete digital health initiatives.

The WHO draft global strategy on digital health 2020-2025 developed guiding principles for countries and digital health strategies, including:

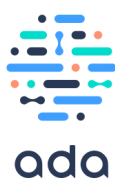
1. Leadership of digital health in member countries, because political will needs to be clearly mapped and is essential in the achievement of digital health.
2. Successful digital health requires an integrated strategy.
3. Promote the appropriate use of digital technology for health.
4. Recognise the urgent need to address the major impediments that face developing countries implementing digital health technologies.

There are more success factors based on global best practices, including institutional arrangement (both nationally and in the region), health stakeholders engagement, legal and regulatory issues for establishing trust, reliable infrastructure, learning together, effectively bridging financial gaps in digital health implementation, the use of emerging technologies (which have played an important role during the COVID-19 pandemic especially), and private sector led investment in digital health.

Currently, Smart Africa has adopted a rigorous project development process. For each project they take, they follow this process, which begins by defining the strategic positioning of the continent on the specific topic, developing blueprints that are used across Smart Africa states, and from those blueprints, working towards developing pilot projects. Smart Africa recognises that partnerships are necessary to achieve digital transformation and play a key role in the development process of all the projects they do. The role of the private sector is also essential, working hand in hand with government, academia, and development partners. We apply this approach and these values in any strategic initiatives they engage in.

In April 2020, the Smart Africa secretariat engaged ICT ministers in an extraordinary council on the guidelines for a COVID-19 and technology response. This included working on data privacy and protection, declaring telecom services as essential services, promoting the use of digital IDs to ease the movement of people and goods, supporting African startups on pandemic management technology solutions, and the use of emerging technologies like big data, blockchain, 3D printing, etc. for pandemic management in Africa.

The Smart Africa Alliance is delighted that they have a partnership with Africa Health Business and look forward to engaging in further collaboration moving forward.



PANELIST

**Hila Azadzoy**  
Managing Director, Global  
Health Initiative,  
Ada Health

Ada Health is leveraging digital technology to make progress towards UHC. It is always important to take a step back and realise the importance of virtual health and digital healthcare solutions. It is important during this pandemic, but is also incredibly important even separately from COVID-19. Four billion people lack access to basic primary healthcare services -- a huge challenge that is only further exacerbated by COVID-19.

So what are the barriers? What is preventing people from accessing care? There is a massive shortage of healthcare workers, there are financial barriers, and geographic limitations. How can we leverage medical AI to support increased access to healthcare?

Ada Health has developed symptom assessment technology over the past nine years that has the highest diagnostic accuracy of any currently available tools of this kind. It empowers people to understand and manage their own health, so that people can make informed decisions about their own health. In parts of the world where medical resources are very scarce, every health decision that an individual makes also has a significant economic cost. Therefore, it is important to help people make more well informed decisions. Ada Health wants to help people better understand their health and, based on that, make informed decisions.

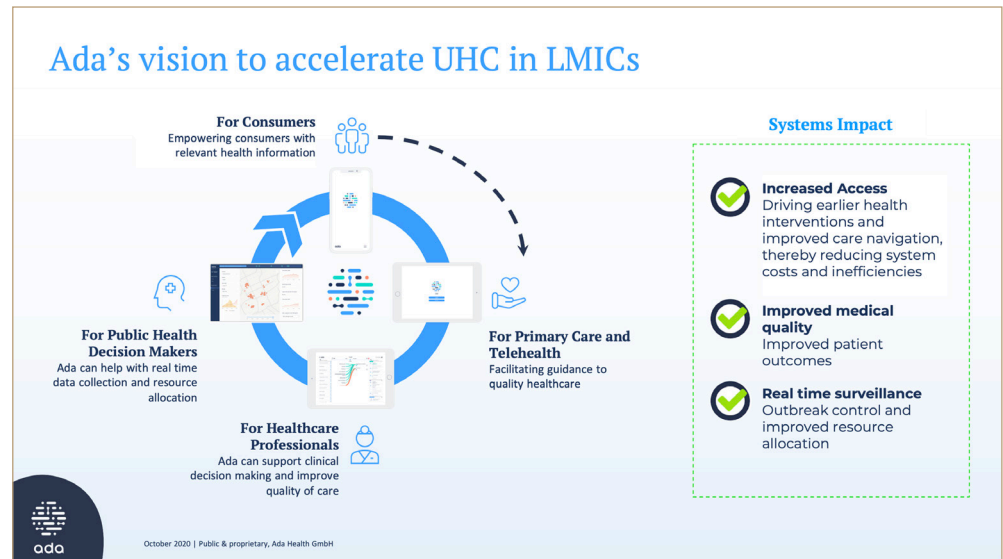
With the guidance of medical experts, Ada Health has created what they call a medical reasoning engine that encompasses thousands of conditions (from communicable to non-communicable, common to complex to rare), which is a comprehensive medical knowledge base paired with artificial intelligence. Because there is a shortage of healthcare workers, it's important when someone is falling ill that patient history is collected in a personalised way and needed guidance is provided.

In 2016, we launched the free Ada app, which takes a question and answer format and asks for patient history, present symptoms, health complaints, and risk factors, and then provides a possibility of what condition might be presenting and a recommendation of next steps.

Since launching, we have 10 million users all around the world. People have completed up to 20 million health assessments, which shows that people are not only using Ada for themselves, but also for others (family members, children, the elderly). The technology can be shared across a household. Additionally, because people can access the Ada app 24/7 in the comfort of their homes, this can provide a digital front door to primary healthcare, empowering people with appropriate guidance and helping to identify more severe cases that need to be directed to care. This can also reduce transmission of diseases by guiding people to stay at home when they are exhibiting certain symptoms.



Since 2016, roughly one third of Ada's users have been from low- and middle-income countries. In 2018, they formed a Global Health Initiative, which asked how they can leverage the technology they have developed in the most impactful way across resource limited settings. How can this technology accelerate universal health coverage and strengthen health systems. How can Ada be integrated sustainably into local health systems? Ada does this through forming strategic partnerships with global health organisations, governments, and other local businesses to work together to make the solution relevant to local needs.



Through a partnership with an organisation in Tanzania, Ada has worked to adapt their technology to work in the local context, including translating the app into Swahili, optimising disease models to match the burden and prevalence of diseases in that area, conducting user research to understand how Ada is used by different demographics within the local context, and carrying out evaluations of how Ada can support the decision making of healthcare professionals.



BroadReach was founded in 2003 and works in many different countries. Their vision is a world where access to good health enables people to flourish, and their mission is to harness health technology and innovation that empowers human action.



**PANELIST**  
**Paul Bhuhi**  
Group Board Advisor,  
BroadReach

**“Digital innovation and new partnerships are critical for resilience in health systems.”**

The crisis the world is currently going through has pushed digital transformation forward, but very few company executives are actually feeling that they're able to take that challenge.

### Our Point of View: Digital Innovation and new partnerships are critical for resilience in health systems

Exhibit 1

The COVID-19 crisis presents an opportunity that few feel equipped to pursue.

Although most executives agree that innovating in the business will be critical...few feel equipped to face the challenge:

**90%**

believe that the COVID-19 crisis will fundamentally change the way they do business over the next 5 years

**85%**

Are concerned that the COVID-19 crisis will have a lasting impact on their customers' needs and wants over the next 5 years

**21%**

Have the expertise resources, and commitment to pursue new growth successfully

**2/3**

Believe that this will be the most challenging moment in their executive career

Source :  
Innovation in a  
Crisis: Why it is more  
critical than ever.  
McKinsey &  
Company

McKinsey  
& Company

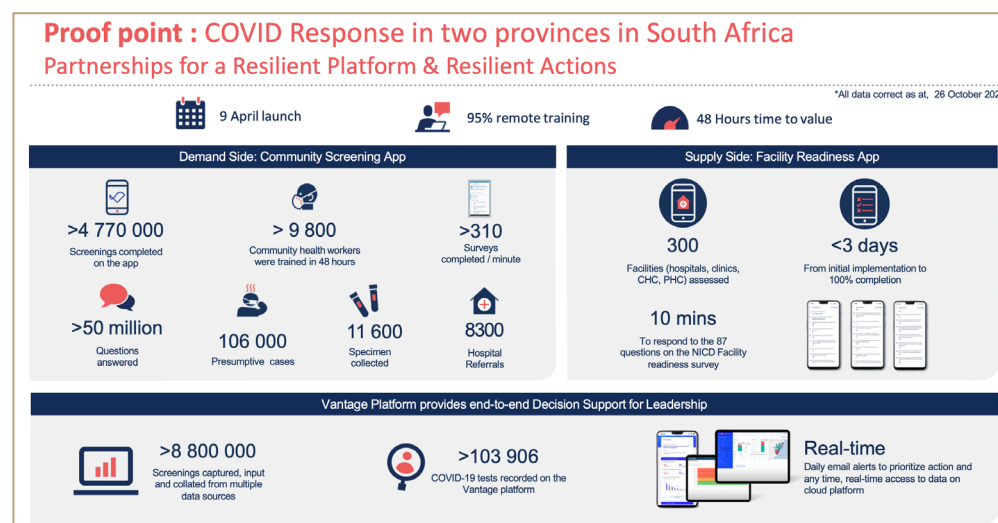
- Digital partnerships must deliver resilient digital platforms and allow for the delivery of resilient decisions at the right time and resilient operational excellence at scale.
- We must balance the natural tension between innovating at speed and scale with providing a secure, scalable, resilient platform.
- Partnerships that drive the Future of Work in Healthcare

So how can we start resolving the gaps between the opportunity, the perceived and real barriers, and how to address them? Digital partnerships must deliver resilient platforms. The resiliency is not only in the platform, but also making sure that resilient decisions are made, those decisions are made at the right time, and we are able to scale those decisions up. Within this, there needs to be balance in the natural tension between innovating at speed and scale, providing a secure, scalable, resilient platform. Partnerships are also essential.

BroadReach wants to extend their value chain beyond insights and into patient experience, taking the outcomes of their observations and taking action based on the behavioral science results they have found.

The approach to investing in emerging economies needs to change. Most investments are underperforming because of sub-optimal decision-making. There are multiple reasons for this. One is because people don't have the right information at the right time, or they have information overload. People don't need dashboards, they need insights. BroadReach takes data and offers insight that leads to action. Good decision-making is also difficult when there is fragmented and incomplete data. BroadReach works hard to automate the data pipeline. There are times when organisations have to make a decision, and when that decision is being made based on data that is incomplete or incorrect, this leads to poor results. Limited operational capacity and inefficiencies are also factors in poor decision-making. How do we balance the increasing demand (in terms of diseases and increasing numbers of patients) and supply (the number of clinics and health workers available). The supply and demand inequality needs to be balanced. There is also a lack of standards and best practices.

In order to combat these barriers, partnerships and innovation is key. Within this, insights need to translate into action. The system isn't fully resilient if the actions taken do not consistently align with the insights being provided. Partnerships around cloud platforms, such as BroadReach's partnership with Microsoft, can provide scalability, security, compliance, and resilience. When elements of the fourth industrial revolution are added, such as artificial intelligence, machine learning, big data analytics, and natural language processing, decision making is able to be improved significantly. When all of this is brought together, not only does it lead to the democratisation of data, but also to the interoperability of that data. That is how changing the future of work in healthcare can happen.





PANELIST

**Robin Njiru**

Business Lead-East Africa,  
Amazon Web Services

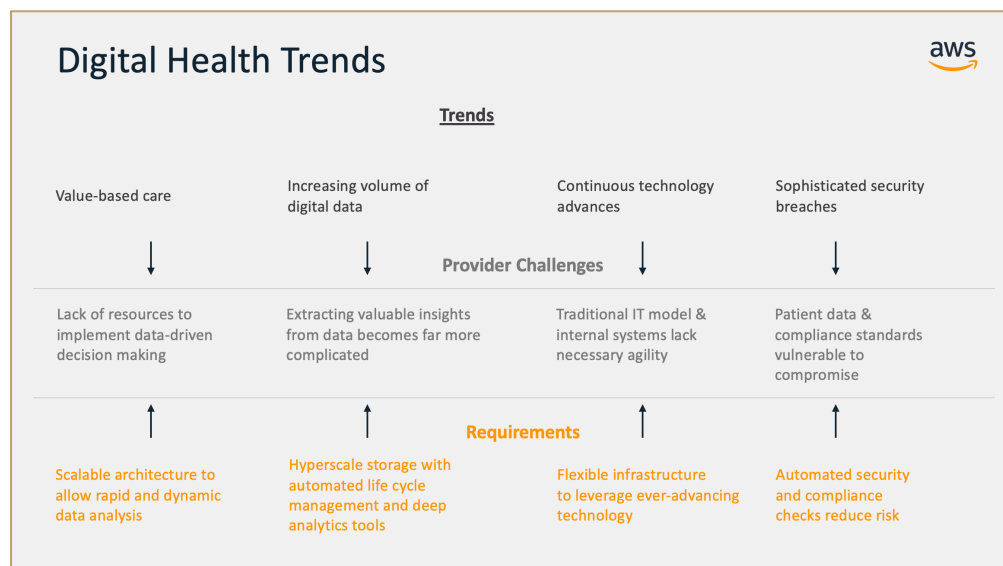
At the heart of the challenges we face, we need to leverage data for action. We need to move from data to insight, and then from insights into action. This will be key in enabling digital health innovations that build into resilient health systems. Some of the trends in digital health include gaps in how infrastructure is managed, as well as a general increase in the volume of digital data. The amount of data that is being processed every single day is vast and how that is leveraged will determine how effective digital technology tools can be.

AWS sees a gap in the ability to scale. Every time there is a huge spike of needs, there is a gap in the ability to continuously scale technology to rise and come down as needed. Up to 75% of IT spent is being used to take care of the operational aspects of existing technology. And healthcare providers are being forced to spend IT budgets on "keeping the lights on" rather than innovating and looking forward.

Digital platforms need to be agile enough to adapt to changes in needs. Traditional technology can often not adapt fast enough to be useful in the moment. We can have all the relevant technology, but if our traditional IT applications are not agile enough, it can be the difference between life and death for patients.

As an organisation, AWS has been in place since 2006. They have more than eight years of dedicated healthcare practice with many medical professionals from various disciplines as a part of their team. Their value proposition is divided into three levels:

1. IT Cloud Transformation - Ensuring the infrastructure is fully optimised so that they get the correct data, as data for data's sake is not useful. This data is then leveraged for decision-making. Whether computing, storage, or access to data, they want to ensure that this infrastructure and access to the data is managed and fully secure.
2. Predict Healthcare Relevant Events - This is where insights come in. What insights are we leveraging? They use artificial intelligence, machine learning, etc. to start predicting healthcare events. This is very relevant on a global, regional, national, as well as on an individual patient level.
3. Personalise the Health Journey - This speaks to ensuring that the patient experience is personalised and, therefore, not generic (as has been the case in the past).







PANELIST

**Ada Mwangola**  
Director Social & Political Pillars,  
Kenya Vision 2030

After hearing the amazing work that the private sector is doing, it's a privilege to present the government side. Kenya Vision 2030 has been in conversations with both public and private health sectors to see how they can carry forward digital health programs to achieve universal health coverage, a key agenda of the government.

Digital health is one of the programs within Vision 2030 to transform the healthcare delivery system, improve performance, and optimise the functionality of national reporting systems. This is in line with their commitment to ensure the highest standards of healthcare and covers both private and public health service provision.

Progress so far includes the digitisation of data at many of the public health facilities, starting from around the third level (sub-county level) to the level-four hospitals (higher at the county level), though they haven't yet created a system for this. Digital e-health hubs have been established in about 25 of the 47 Kenyan counties. A health platform has been created, which is a result of the e-health hubs. This has enhanced the district health information software and created a list of the master health facilities, which is basically a list of where the facilities are located geographically.

The Kenya Health Policy (2014-2030) articulates how the private sector can invest in the health sector. The E-Health Bill 2020 has been proposed and is in an advanced stage, currently circulating for public participation. They want to use ICT mechanisms to help people access healthcare services and information, as well as to regulate the collection, storage, analysis, transmission, and ownership of patient health data. The medical health tourism project has not yet moved beyond a draft, but it has been worked on collaboratively with the private sector. Vision 2030 would like to coordinate private health sector actors, who are more advanced in the technological space, to make Kenya a hub for specialised healthcare treatment because we are seeing this as also an economic activity that can contribute hugely to Kenya's GDP. There is a need to prioritise the infrastructure in remote areas.

Vision 2030 is committed to partnering with the private sector to create a critical mass to have a health platform that delivers the UHC agenda in Kenya and across the region. The policy framework that has been developed, but is currently nascent, should be taken advantage of and expanded so that there are more actors coming into this space. COVID-19 has accelerated the interest in digital health and the public sector is now taking it very seriously, recognising that the delivery mechanism has to have real-time participation and information from health facilities. Vision 2030 looks forward to discussing modalities of partnership with the private health sector.



## Progress so far....

- Digitization of Public Health facilities,
- Digital E-Health Hubs established,
- Creation of a Health platform,
- Enhancement of the District Health Information Software 2 (DHIS 2) and Kenya Master Health Facility List (KMHFL) systems.

# Questions & Answers

**Q:** How do public and private sectors work together? How can the private sector help? How can the private sector revolutionise the way that health data is collected and utilised, since the private sector data often doesn't get to the public sector? How do PPP frameworks accommodate startups?



**Ada Mwangola:** Kenya has a PPP framework, but even just taking advantage of the policy environment that public and private can work collaboratively is a huge opportunity. Now that private sector holds so much data, government will definitely listen. The formalisation of the partnerships is a process, and it is working, but private sector has been a bit shy about moving into the public space and show their value proposition to the government. But the space is open.



**Robin Njiru:** The youthful population across Africa are digital natives, so even the organisations they're putting together are centered around data. There is a real opportunity here. To come together as private and public, there is a balance between regulation and innovation. Innovation will always go ahead. Regulation should not stifle innovation, but innovation should not be dangerous for public health.



**Hila Azadzoy:** There is a significant amount of data, but there are different applications and use cases depending on the specific setting. It's important to ask what the value of each individual innovation is and evaluate each one. Additionally, how does the data that is being generated complement existing data?



**Paul Bhuhi:** The question is how to make partnerships and use of data greater than the sum of their parts. We need to think about regulation and policy balanced with the need for rapid innovation. The way to do this is, rather than only thinking about the big picture, is by looking at specific use cases that solve specific problems. Once we start solving the specific problems and people see the value of how that's done in an innovative way through AI and machine learning, the bigger issues can start joining up.

## Parting Shots

### Hila Azadzoy

There are so many great technologies out there. We can have the best technology, but if we're not collaborating, especially with the public health sector where the majority of people in low- and middle-income countries are accessing care, these solutions and the potential impact will not be able to scale. How do we scale and bring these solutions in a meaningful way? A public-private collaboration is essential to reap the benefits that any solution has to offer. If we truly want to scale, collaboration is key.

### Paul Bhuhi

The digital divide and health equity -- this is a real issue. We need to work with telecommunication companies as well as other tech companies. They can provide a way to bring that digital divide together. Technologies can do pretty much anything we want them to do, we just need to make sure that we have the right use case and create scalable change, on the technology side as well as industrialised workflows that ensure that the technology is actually useful.

### Robin Njiru


We are keen as an organisation to support, partner with, and develop startups. Especially in the context of Africa we see a lot of niche SMEs and addressing local issues but with the inability to scale, so AWS is keen to form partnerships in the healthcare space to help with this. It is important to do well and to do good.

### Ada Mwangola

Let's start this engagement, whether it's stakeholder engagement or partnerships, let's start the road towards creating a critical mass and an effective health platform. Vision 2030 is willing to come on board.



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