3rd December, 2020
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WEBINAR

FUTURE OF HEALTH CONFERENCE
THE SUMMARY

NIGERIA HEALTH WATCH
Informed commentary, intelligence and insights on the Nigerian health sector

Innovation: Improving Health and Scaling up Healthcare Access

Iyadunni OLUBODE
Consultant, Nigeria Director, MSD for Mothers

Onyedikachi NWIZU
Head of Operations, MOBicure

Dr. Ibironke DADA
Program Director, SafeCare, PharmAccess Foundation

Dr. Kendra NJOKU
Quality Lead / Head of Programs, mDoc Healthcare

Dr. Lawal BAKARE
Founder/CEO, EpidAlert

Dr. Andrew NERLINGER
Co-founder, PandemicTech

Dr. Lois OLAJIDE
Head of SORMAS, Nigeria Centre for Disease Control

Dr. Moredreck CHIBI
Regional Advisor for Health Innovation, WHO Regional Office for Africa

Adaobi EZEOKOLI
Editor-in-Chief Nigeria Health Watch

Dr. Shubha NAGESH
Director- Research & Follow-up Programs, Latika Roy Foundation

Dr. Tazeen RIZVI
Global COO & Chief Medical Information Officer, Mobihealth International

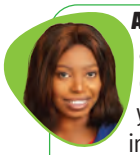
Dr. Adebowale ODULANA
Founder/CEO, Doctoora e-Health Limited

Vivianne IHEKWEAZU
Managing Director, Nigeria Health Watch

#Innovation4HealthNaija

IYADUNNI OLUBODE is a consultant and Nigeria director of MSD for Mothers with over 17 years of experience in private and development sectors. The former Executive Director of LEAP Africa and management consultant with Accenture is a strong advocate for the development of youth and women in Nigeria as key contributors to the economy. She has overseen the development and implementation of capacity development programs and worked on strategy and talent management engagements.

DR. LAWAL BAKARE is the Founder/CEO, EpidAlert, a not-for-profit pandemic and health security media technology firm. He is implementing models that are strengthening the narrative for the impact of health promotions, communications and marketing practices on health outcomes of developing economies and weak health systems. Dr Bakare's opinions and ideas are shaping global health conversations through design, research, lean execution, capacity building with the use of appropriate technologies.



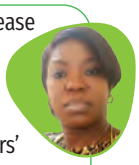
ADAOBI EZEOKOLI is a communications expert with over 12 years experience in communications, media development and journalism. The public health expert, with expertise in health communications, evidence-based science writing, qualitative and quantitative research is the Editor-in-Chief, Nigeria Health Watch, a non-governmental organisation working in health communications and advocacy. She is the Director of Communications at EpiAFRIC, and a 2019 Obama Foundation Africa Leader.

ONYEDIKACHI NWIZU is the Head of Operations at MOBicure – a digital health company that has provided over 50,000 mothers and young people in Nigeria with life-saving health information via the Omomi and myPaddi mobile apps. The good health and wellbeing advocate spent the last 4 years developing and working on projects that promote reproductive, maternal, newborn, and child health (RMNCH) in Nigeria. She is also a volunteer for the SDGs Awareness Campaign Tour (SDGs ACT) in Edo State.

DR. IBIRONKE DADA is the SafeCare Program Director at PharmAccess Foundation, an NGO that facilitates affordable access to quality health care in Africa. Through collaborations, PharmAccess developed the SafeCare Standards that are accredited by International Society for Quality in Health Care (ISQua). Dr. Dada has over 18 years in public health and currently oversees regulatory and quality improvement initiatives across several states in Nigeria.

DR. KENDRA NJOKU is a public health professional with experience in global health. The Quality Lead/Head of Programs at mDoc oversees the organisation's digital health solutions and quality initiatives including the MSD-funded Reducing Indirect Causes of Maternal Mortality and Morbidity Project and mDoc's capacity-building arm. She also leads the COVID-19 response of mDoc across Africa, including managing the CompleteHealthTM digital platform that provides guidance on self-care and lifestyle modifications to individuals living with regular and chronic health needs.

DR. ANDREW NERLINGER is a physician, venture capital investor, and social impact innovator. He is the co-founder of PandemicTech, an Austin-based virtual technology incubator that supports health security innovators on the front lines of fighting pandemic infectious disease threats. He is part of the founding team of the Texas Global Health Security Innovation Consortium (TEXGHS), a consortium between academic, public sector, and private sector partners to coordinate efforts to support companies working towards pandemic preparedness and response in Texas.



DR. LOIS OLAJIDE is a public health professional at the Nigeria Centre for Disease Control (NCDC) and a fellow of the West African College of Physicians. She leads the Surveillance Outbreak Response Management and Analysis System (SORMAS) team, a digitalization of surveillance systems in Nigeria at NCDC. Dr. Olajide supervised the deployment of SORMAS across several states in the country and coordinated partners' and donors' activities, investments and involvement in the deployment of SORMAS.

DR. MOREDRECK CHIBI is the Regional Advisor, Health Innovation at the World Health Organization (WHO) Regional Office for Africa in Brazzaville, Congo. He works directly with the WHO Regional Director for Africa in designing and implementing WHO programming across 47 member states and serves as a primary interface between the Regional Office in Africa and the WHO Headquarters in Geneva.

DR. SHUBHA NAGESH is a public health specialist working for children with developmental disabilities and serves as Director, Research and Follow-up Programs at Latika Roy Foundation, in Uttarakhand, the Himalayan state of India. Dr. Nagesh has designed and implemented community-based programs for families of children with developmental disabilities at government health facilities in rural contexts. As an Atlantic Fellow in Global Health Equity, her specific focus is on improving access to and utilization of intervention services for children with disabilities.

DR. TAZEEN RIZVI is the Global Chief Operating Officer and Chief Medical Information Officer at Mobihealth International. She is passionate about improving access to quality medical care and expanding the use of technology to create patient-centric healthcare delivery systems. With over 15 years industry experience in clinical project management and business development, she has been involved in creating leading edge HIS implementations and patient-centric healthcare delivery systems.

DR. ADEBOWALE ODULANA is a health care management consultant and Founder/CEO at Doctoora e-Health Limited and Doctoora Consulting where he oversees performance improvement service stream. He is passionate about making positive contributions to improving healthcare delivery and reducing poverty globally. He co-founded The CyberLogik Foundation, a charity offering functional 3D printed prosthetics to amputees. He holds a postgraduate degree in Health Management from Imperial College Business School.

CONFERENCE AGENDA

WELCOME ADDRESS
Vivianne Ihekweazu, Managing Director, Nigeria Health Watch

SESSION ONE
Introduction: Innovations in Maternal Healthcare
Moderator: Iyadunni Olubode, Consultant, Nigeria Director, MSD for Mothers

Video: The Mom Effect

Using m-Health solutions to improve access to maternal healthcare: OMOMI experience
Onyedikachi Nwizu, Head of Operations, MOBicure

MomCare: Empowering pregnant women and providers to track appointments through SMART contracts
Dr. Ibironke Dada, Program Director, SafeCare, PharmAccess Foundation

Optimising digital self-care for women in the time of a pandemic
Dr. Kendra Njoku, Quality Lead/Head of Programs, mDoc

Questions and Answers (Q&A)
All participants

SESSION TWO
Introduction: Innovations in Epidemics Preparedness
Moderator: Dr. Lawal Bakare, Founder/CEO, EpidAlert

Video: The Cost of Epidemics

Using Tech vs. COVID-19: Local innovation ecosystems for global health security
Dr. Andrew Nerlinger, Co-Founder, Pandemic Tech

SORMAS: A Digital Approach to Surveillance and Outbreak Management in Nigeria
Dr. Lois Olajide, Head of SORMAS, Nigeria Centre for Disease Control (NCDC)

Drawing lessons from COVID-19: Innovations in healthcare delivery in Africa
Dr. Moredreck Chibi, Regional Advisor for Health Innovation, WHO Regional Office for Africa

Questions and Answers (Q&A)
All participants

SESSION THREE
Introduction: Innovations in Primary Health Care
Moderator: Adaobi Ezeokoli, Editor-in-Chief, Nigeria Health Watch

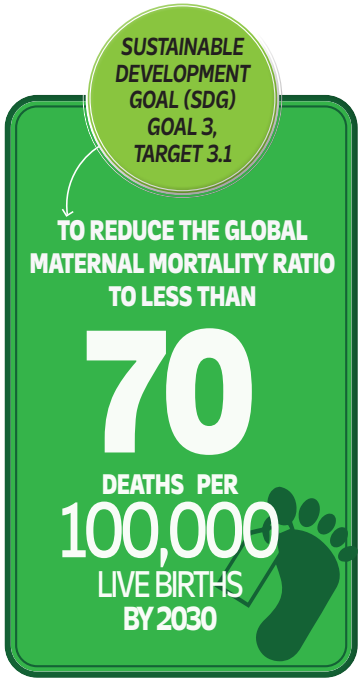
The Long Road to Accessible Primary Health Care
Dr. Shubha Nagesh, Director, Research & Follow-up Programs, Latika Roy Foundation

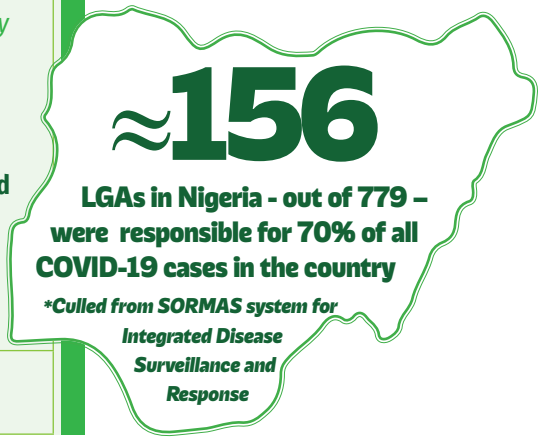
Mobihealth: Redefining Access to Healthcare
Dr. Tazeen Rizvi, Head of Operations, Mobihealth International

Achieving primary health care integration by leveraging technology and innovation
Dr. Adebowale Odulana, Founder/CEO, Doctoora

Questions and Answers (Q&A)
All participants

CALL TO ACTION/ CLOSING
Vivianne Ihekweazu, Managing Director, Nigeria Health Watch





INTRODUCTIONS

Showcasing innovations in Nigeria's health space

Innovations in healthcare are important for every part of the healthcare ecosystem, and creating maximum impact will require coordinated effort and collaboration across the various stakeholders.

COVID-19 and the accompanying panic has put healthcare into greater focus. The unprecedented upheaval in every sector of most countries also produced unique innovations that Nigeria's health space may otherwise not have seen in the near future.

The accompanying key questions were then, 'What innovations should become systemic? What innovations need to be tweaked? And ultimately, how would all the innovations caused by and or related to the COVID19 pandemic help to strengthen access to health care for the most vulnerable populations?

The Future of Health Conference 2020 – delivered via a webinar format for the first time – was about showcasing these innovations in Nigeria's health space. Delegates were emphatic that innovations in healthcare are important for every part of the healthcare ecosystem, and that creating maximum impact will require coordinated effort and collaboration across various stakeholders.

The 3-session 12-speaker conference, tagged *#Innovation4HealthNaija*, offered attendees the opportunity to connect with healthcare innovators and learn firsthand about healthcare innovations. It also threw up opportunities to connect with funders and organisations that could help innovators at every stage of development to increase their impact in healthcare and share insights about the challenges and opportunities scaling up global healthcare innovations.

With health security on the global front burner, it was highlighted that the African continent, and indeed Nigeria, had to ensure that innovative solutions to adequately respond to the challenges of epidemic outbreaks were looked at succintly. It was also agreed that innovation could support epidemic prevention and response and protect the future. Speakers also shared from their perspectives on innovations in primary healthcare that were doing their bit to ensure a more equitable access to quality care for all.

'Innovation: Improving Health and Scaling up Healthcare Access' highlights the need to look for innovative ways of delivering quality healthcare to Nigerians and bringing in efficient and quality improvements where possible.'

Vivianne Ihekweazu, Managing Director, Nigeria Health Watch

INNOVATION IN MATERNAL HEALTH

Key considerations include, 'How can we deliver maternal healthcare to Nigerian women in a way that meets their needs? How do we bring innovation to funding access to health for women? What are the different models for women to have access to when they are looking at maternal health?'

EPIDEMIC PREPAREDNESS

COVID-19 has shown us that Nigeria has to take health security seriously especially in the face of a struggling economy. Innovation can play a role and has played a role in the response to the COVID-19 outbreak. Innovation has helped improve the response, driven new ways of thinking to respond to epidemic outbreaks and can play a critical role in the global health security.

INNOVATION IN PRIMARY HEALTHCARE

Primary health care is at the foundation of all health care delivery. Innovation can play a part in ensuring efficient primary health care delivery. It can ensure that healthcare meets the needs of the patients and is accessible to those who ultimately need it.

"COVID-19 has shown us, it is feasible. In fact, it is critical and imperative to have digital health solutions and innovations in driving, improved health outcomes."

DR. KENDRA NJOKU
Quality Lead / Head of Programs, mDoc Healthcare

"Innovation in primary healthcare for the disability community is more unique, and is related to attitudes, compassion, empathy, and connecting with the disability community."

DR. SHUBHA NAGESH
Director- Research & Follow-up Programs, Latika Roy Foundation

"Empirical evidence actually shows that the future of health in Sub-Saharan Africa will be underpinned by the development and adoption of homegrown innovative solutions, that will be adapted to each country's specific needs."

DR. MOREDRECK CHIBI
Regional Advisor for Health Innovation, WHO Regional Office for Africa

"One of the key things in the ecosystem development is maturing groups of investors in different key sectors... One of the things we are trying to do with health security is create more and more investors who are comfortable in investing in health security-related technologies."

DR. ANDREW NERLINGER, *Co-founder, PandemicTech*

QUOTED!

"More than 70% of diseases, experts say, can be easily treated by telemedicine. So the patients don't even have to go to a hospital and stand in those waiting lines."

DR. TAZEEN RIZVI, *Global COO & Chief Medical Information Officer, Mobihealth International*

"We need to start looking at the virtual integration that enables us to use mobile technology generally, to bridge gaps.
We cannot establish 10,000 primary health care centres in the 10,000 wards. Even if we do, we will still come with capacity constraints and get back to these problems of maintenance and the likes."

DR. ADEBOWALE ODULANA
Founder/CEO, Doctoora e-Health Limited

"Nigeria has over 173 million registered mobile phone users. Everyone will agree that there is no better Time Than now to create innovative solutions to address quality health care. In this case, to create solutions that engage and empower women, on antenatal care, post-natal care... all that has to do with maternal and child health care"

ONYEDIKACHI NWIZU
Head of Operations, MOBicure

"WE BELIEVE WE CAN LEVERAGE ON DIGITAL TECHNOLOGY TO IMPROVE MATERNAL AND NEWBORN CARE OUTCOMES."

DR. IBIRONKE DADA
Program Director, SafeCare, PharmAccess Foundation

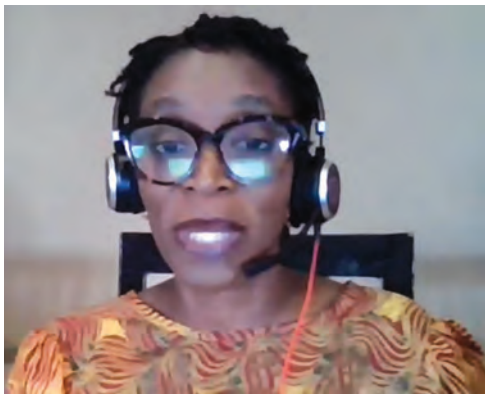
"One of the things we're doing is to ensure that we have dashboards across local government areas, such that when they have the benefits of auto-generation of analysis that can be done at the local government level, it will actually trigger them into enhancing disease surveillance and not just waiting until an outbreak is recorded."

DR. LOIS OLAJIDE
Head of SORMAS, Nigeria Centre for Disease Control

Innovations in Maternal Healthcare

Session Moderator's Introduction

Iyadunni Olubode, Consultant, Nigeria Director, MSD for Mothers



THE CONTEXT

Nigeria Health Watch, collaborated with, EpiAFRIC and AfriCare to produce the 'Why Are Women Dying in Nigeria Report'. This report provides context and stories behind the 67,000 Nigerian women who die annually from childbirth and pregnancy related causes.

BETTER MATERNAL HEALTH OUTCOMES

A silver lining story shared in the 'Why Are Women Dying in Nigeria Report', revealed a community – Odenigbo in Ikwo Local Government Area – in Ebonyi State, where the community leader worked with civil society - an NGO known as Amanda Marga Universal Relief Team (AMURT) – and the state government to revitalise the primary health care centre in Odenigbo. They were also able to get all the pregnant women in Odenigbo to give birth at the centre.

That story stood out because Odenigbo actually had significantly better maternal health outcomes. They provided a destination for women from other communities to give birth. In general terms, this is an example of a health innovation.

THE WHO VISION

The World Health Organization (WHO) requires a health innovation "to develop new or improved health policies, systems, products and technologies, services and delivery methods that improve people's health with a special focus on the needs of vulnerable populations".

REDUCING GLOBAL MATERNAL MORTALITY RATES

SDG Goal 3.1 is to reduce global Maternal Mortality Rates (MMR) to less than 70 per 100,000 live births. Ten years away and Nigeria's MMR is 512 per 100,000 live births., (NDHS 2018). The maternal health crisis is further exacerbated by the COVID-19 pandemic.

MEETING MATERNAL HEALTH GOALS

To meet the goals, resilient, strong health systems where public sector capacity is complemented by private sector innovation are needed. Solutions that reflect the preferences, needs and values of the Nigerian woman are required. These maternal health innovations would be required to be scalable, sustainable, and equitably available.

RIGHT POLICY ENVIRONMENT

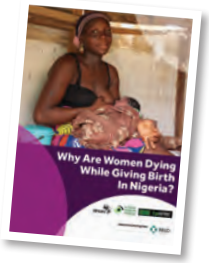
For these types of innovations, the right policy environment as well as supportive innovative funding mechanisms are required. MSD focuses on this globally. MSD for Mothers supports, tests and advances these kinds of innovative models to improve maternal health.

> **The goal of the 'Innovations in Maternal Health Care' conversation is to inform, inspire and question how we leverage innovation to improve maternal health outcomes in a post COVID-19 Nigeria.**

WHAT'S IN PLACE?

'Why Are Women Dying While Giving Birth In Nigeria? Report'– Nov. 2020

A community informed maternal death review – by Nigeria Health Watch, EpiAFRIC and AfriCare – that provides context and stories behind the 67,000 Nigerian women who die annually from childbirth and pregnancy related causes.



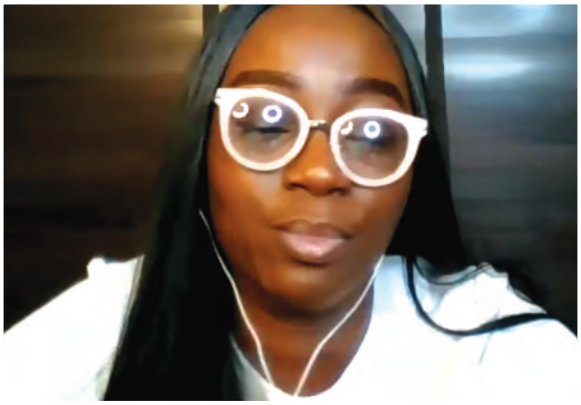
OMOMI and My Padi mobile apps from MOBIcure

These digital health platforms have provided over 50,000 mothers and young people in Nigeria with life-saving information.

Innovations in Maternal Healthcare

Using m-Health solutions to improve access to maternal healthcare: *OMOMI* experience

Onyedikachi Nwizu, Head of Operations, MOBicure



BACKGROUND

Nigeria still contributes to the high rates of maternal and child mortality in the world.

While Nigeria might be a country with appalling rates of maternal and child mortality, it is a country that places a high value on communication. This is evident in the high level of mobile phone penetration and internet usage in Nigeria.

ADDRESSING QUALITY HEALTH CARE

There is no better time to create innovative solutions to address quality health care. In this case, to create solutions that engage and empower women on antenatal care, post-natal care, and generally all that has to do with maternal and child health care. This is what MOBIcure offers through the *OMOMI* platform.

OMOMI PLATFORM

OMOMI (meaning 'my child' in Yoruba) is a platform that provides lifesaving maternal and child health information for mothers while connecting them to medical personnel in real time. On the platform, mothers form an online community, interact with other mothers, share experiences, create new topics, ask questions and receive responses from other mothers.

OMOMI MOTHERS COMMUNITIES

OMOMI communities provide a safe space, where "there is no right or wrong way to write." It affords mothers and young women a leeway to 'come as you are', share experiences and hear from other women.

A highlight of the mothers' communities is that medical personnel vet all responses given. The communities offer openings to understand what these women see as quality health care. It gives an overview of what the women know and how they can help themselves. It also brings to light how well informed they are to make better choices - for themselves and their children.

AFFORDABLE *'CHAT-A -DOC'* SERVICE

Another feature on the *OMOMI* app is the *'Chat-A-Doc'* service that gives the mother an opportunity to have a private chat session with a medical doctor. This is a paid but affordable service - at just N200 per session or N600 weekly.

OMOMI MILESTONES

OMOMI

2015
APP LAUNCHED

41,000
TOTAL APP USERS with most of them being Nigerian mothers

1,500
RESPONSES COLLECTED from women within the first six months of the launch of the 'Hospital Review' feature on the app

Innovations in Maternal Healthcare

FEEDBACK ON THE OMOMI APP

Firsthand information is received from mothers and women on what their needs are, on the app. Feedback received mostly centre on the lack of respect received from healthcare providers. The women request that their feedback be sent to the right persons for action. They demand action on the possibility of training health workers to provide respectful health care. Mothers also request for improvement on the quality of information given through the app so that they don't have to always feel left out if they do not visit the hospital as a result of the COVID-19 pandemic.

Using m-Health solutions to improve access to maternal healthcare: OMOMI experience

Onyedikachi Nwizu, Head of Operations, MOBicure

GROWTH MONITOR AND DIARRHOEA MANAGER

The *'Med Service'* feature has a growth monitor which works with the biodata of a child to tell the mother when the child is underweight, overweight or malnourished. It has a *'Diarrhoea Management'* sub-section where the mother answers a couple of questions. The aim of *'Diarrhoea Management'* sub-section is to provide a first-aid guide for a mother to manage diarrhoea before accessing a health facility or meeting physically with a medical personnel.

'HOSPITAL REVIEW' IN-APP SURVEY

There are also the *'Health Facts'*, *'Maternal Calculator'* and a recent feature, *'Hospital Review'* - made possible by the partnership with MSD for Mothers. The goal of having this *'Hospital Review'* in-app survey is to offer mothers an avenue to give direct feedback. It is a bit different from the mother's community, because here, the goal is to educate them while getting their responses on the quality of care they received during childbirth. As part of the survey, questions such As, *"How were you treated? Were the bedsheets clean? Were you given your child within the first 20 minutes of childbirth?"* are asked.

Feedback from mothers are also visible in this survey section. One of such feedback reveals, *"My delivery experience was good, but I am not giving them 5 stars because of the mosquitoes in the postnatal ward and SVU ward"*.

OMOMI'S FIVE-YEAR STRIDES

OMOMI has grown from a simple SMS service channel to a huge platform that collects the voices of women while providing quality health care for them. From simply sending text messages such as, *"Oh, at this time, your baby should be doing this"*, *OMOMI* now has feedback channels.

BENEFITS OF *OMOMI*

The fact that *OMOMI* now makes it possible to receive feedback from mothers, allows for informed back-end app choices and evolving or tweaking the app to suit end-user needs. This helps in understanding or appreciating where mothers are coming from and making relevant or corresponding in-app changes accordingly. *OMOMI* complements the place of the hospital - and does not aim to take its place. At every point there are doctors encouraging mothers on the platform to, *"Oh, go see the doctor. Come back with feedback, we would complement, we would help, we would lead you along the way."*

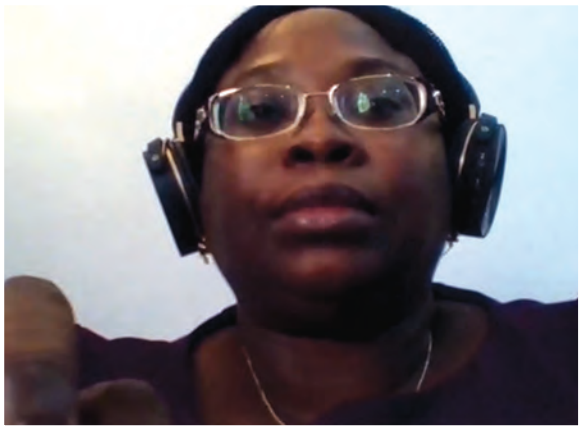
SCALING UP

There are opportunities for scaling up such as having artificial intelligence (AI) capabilities in the app. With AI and a chat bot, mothers will get faster response from doctors. Mothers would expend fewer resources, and the current effect of the doctor-patient ratio in Nigeria cushioned.

Innovations in Maternal Healthcare

MomCare: Empowering pregnant women and providers to track appointments through SMART contracts

Dr. Ibironke Dada, Program Director, SafeCare, PharmAccess Foundation



BACKGROUD

MomCare leverages digital technology to improve maternal and newborn care outcomes in Nigeria, Kenya and Tanzania.

It facilitates care for pregnant women. In Nigeria, MomCare is the product of the partnership between PharmAccess and the Lagos State Health Management Agency (LASHMA).

THE TARGETS

The conversation starts with identifying the women, those who can pay or those who cannot pay. It targets all pregnant women attending the partner clinics – whether they are enrolled in the Lagos State Health Scheme (LSHS) or not. The programme makes provision for premium subsidies for indigent pregnant women.

THE CARE BUNDLE

MomCare program in partnership with LASHMA defined the care bundle in line with the WHO standards to:

- improve the quality of maternal, newborn and healthcare services
- reduce drop-out out from antenatal care
- increase the uptake of delivery services among every woman
- stimulate the purchase of family enrolment plans among pregnant women instead of individual plans
- change their behaviour via SMS messages targeting some form of behaviour change

OBJECTIVES OF THE *MOMCARE* PROGRAM

- To increase the access and uptake of quality Reproductive, Maternal Newborn and Child Health (RMNCH) services under the LSHS
- To strengthen maternal and newborn health care using Safe Care quality improvement methodology
- To catalyse local donor funding for maternal and newborn services
- To stimulate enrolment into the Lagos state health scheme
- To develop a business scheme for RMNCH services by creating and incentivising smart contracts between the patient, the payer and the provider
- Utilise patient's data
- To monitor the patient's journey

COMPONENTS OF MOMCARE

MomCare has different components. Some of it is targeted towards women (expectant mothers) and some of the interventions are targeted at the providers. For the expectant mothers, SMS messages are sent out. Where necessary, phone calls are made to understand their experiences in terms of the journey. But providers, participate in an objective quality improvement program called SafeCare, which starts with the quality assessment. Providers are supported to implement their quality improvement plan. Any of the deficiencies uncovered at the time of the assessments would be addressed by indicating the corrective action in the quality improvement plan.

Innovations in Maternal Healthcare

THE MOMCARE JOURNEY

MomCare is about tracking the mother's journey. Thus, her visits are categorised into care bundles, expecting that when she goes to her health centre and she declares visits, she is intimated with the components of this particular care bundle and based on that, the adherence of the provider can be monitored to ensure that the woman actually accesses everything within her care bundle, whether it's investigation, certain examination and all.

MomCare: Empowering pregnant women and providers to track appointments through SMART contracts

Dr. Ibironke Dada, Program Director, SafeCare, PharmAccess Foundation

- Serve as SMS reminder for patient appointments
- Collect patient's feedback from the services that they have received

DYNAMICS OF MOMCARE

Providers are enrolled in the quality improvement programme using the LASHMA ICT platform, and supported to improve the quality of care provided. Providers are also supported on issues around data analytics, providing them with feedback regarding the patient's experience of accessing care.

MOMCARE TOOLS IN USE

- **Multi-method productive screening tool** that objectively identifies indigent women
- **LASHMA ICT platform** that allows for effective patient tracking, utilisation of care and strengthening of fund disbursement
- **Quality improvement methodology** that starts with an assessment, provides a quality improvement plan and consistently supports the providers to improve on the quality of care they provide

THE MOMCARE CONTRACT

MomCare is a smart contract between three parties:

- **The patient** that knows that "If I go to the clinic, I will get good quality care"
- **The provider** that knows "If I deliver quality, I will get paid"
- **LASHMA** that knows the analytics from "I spent my money on good results from a quality care journey"

DATA-DRIVEN *MOMCARE*

MomCare works with LASHMA to come up with the needed data analyses. Mothers receive at least five messages. The first message is a welcome message and at the end of the journey, during the postnatal care period, the mother will receive an end-of-journey call.

Innovations in Maternal Healthcare

Optimising digital self-care for women in the time of a pandemic

Dr. Kendra Njoku, Quality Lead/Head of Programs, mDoc

BACKGROUD

mDoc is a digital health company that works and supports people living with regular and chronic health diseases. It leverages quality improvement, behavioural science, data, and technology. Through a four-pronged hi-tech hi-touch approach, self-care is integrated for the whole individual as a person - and not the health condition.

EMPOWERING PATIENTS

mDoc is keen on empowering patients to demand quality of care, and health providers to provide quality of care. Patients are supported in a very corresponding role to the healthcare provision they get at the facilities on lifestyle modifications that include nutrition, exercise and stress management.

COMPONENTS OF MDOC

- **Complete health digital platform:** Virtual coaches provide self-care support and digital nudges towards the members living healthier, happier, and more productive lives
- **Committee-based nudge hub:** Members have the option to come in-person to interact with their coach
- **naviHealth digital tool:** A digital patient navigation tool that directs individuals to where they can get different health services as well as see different healthcare specialists
- **mDoc quality network:** Monthly tele-education sessions for both providers and patients

RICOM3 PROJECT

mDoc delivers the Reducing Indirect Causes of Maternal Mortality and Morbidity (RICOM3) project in collaboration with Jhpiego and Health Strategy Delivery Foundation (HSDF), and is funded by MSD for Mothers in partnership with the federal and state ministries of health.

RICOM3 is a multimodal and integrated approach to drive self-efficacy and empower women to make the right health decisions for themselves. Under RICOM3, mDoc supports pregnant women living with, or at risk of chronic diseases, such as hypertension, diabetes, anaemia and obesity. The program brings onboard women who access care at

mDOC's MILESTONES

mDoc

>10,000
WOMEN OF REPRODUCTIVE AGE SUPPORTED with 21% of these women having some form of basic phones

73
INTEL ECHO SESSIONS ACROSS EIGHT MONTHS

mDOC TESTIMONAL

"At first, I was wondering how technology was going to help me with my pregnancy, but after three weeks with my coach and the team, I became a believer".
- A mother

Innovations in Maternal Healthcare

mDOC's COVID-19 SUPPORT

Priority was given to high-risk women during COVID-19 lockdowns and restrictions.

Women who could not access a facility were nudged to check their vitals at neighbourhood pharmacies. This led to discoveries on their health status.

35% of women had grown to have undiagnosed risk, high blood pressure or preeclampsia.

mDoc provided mental health support through the tele-echo sessions, as well as PPE kits to the women in select facilities where they went to deliver.

Optimising digital self-care for women in the time of a pandemic

Dr. Kendra Njoku, Quality Lead/Head of Programs, mDoc

both public and private facilities into the complete mDoc health platform.
The women are introduced to their health coach and a multidisciplinary team that includes a nutritionist, a fitness coach, and a behavioural coach - to provide mental health support.

BENEFITS OF THE RICOM3 PROGRAM

- Builds a community of mothers that encourage themselves towards living healthier and happier lives over the support platforms
- Provides automated health education messages
- Enables women to work with their coaches and multidisciplinary team, to co-create very specific, SMART action plans to implement towards healthier living
- Links women to facilities for routine, urgent and emergent care
- Builds the health knowledge of both providers and patients through tele-echo sessions. This is aimed towards having healthier and happier mothers and newborns

NAVIGATING THE TECH CHALLENGE TO MITIGATE DISPARITIES IN ACCESS TO HEALTH

- **For women with basic phones**
  - SMS and voice calls are provided to support them and
  - integrate USSD
- **For women with smartphones,** digital literacy is done through different formats.
  - *Platform queries:* Prior to to the COVID-19 pandemic, the platform received questions around chronic diseases, pregnancy and general health. At the peak of the pandemic, 17% of their messages were around COVID-19 and how to stay safe
  - 12% of questions centred on newborn care
  - Breastfeeding is a very frequently asked question as well as labour and delivery

SUCCESS STORIES

- Over 13 Intel echo sessions across eight months.
- 12% increase in knowledge from the quiz we have on the call.
- Expansion to provide care along the entire reproductive journey from pre-pregnancy, to that mother who is still within reproductive age, or is done with pregnancy.
- Improved self-efficacy, health and digital literacy amongst the women surveyed:
  - 34% increase reported being more comfortable managing their health
  - 73% of them were more comfortable using their phones for health
  - Over 80% of mothers responded with correct answers to specific questions related to the chronic diseases

Innovations in Maternal Healthcare

Session 1 Takeaways

- The highlighted innovations were not designed to replace health facilities but to enhance and complement the health-seeking experience and in-facility services.
- The innovations speak to using technology to empower patients, especially as was witnessed with COVID-19 pandemic lockdowns and restrictions to accessing healthcare facilities.
- The platforms helped to bridge the gap between health facilities and pregnant women who had to contend with COVID-19, but also the anxiety of being pregnant at the same time.
- Information drives feedback in the maternal care innovations. The quality of information accessed on the platforms was vital in driving engagement. User requests were adequately captured on the platforms to drive feedback and/or follow-up action as needed.
- While some innovations were driven by market costing and the normal law of demand and supply, sustainability goals and supervisory demands ensured that government involvement was needed for some others.
- Skyrocketing data expenses due to increased data usage need to be addressed in order to minimise accessibility bottlenecks of the general public in these innovations. Together with telecommunication companies and data-service providers, creative solutions can be incorporated either into the health insurance schemes or in partnerships with HMOs.
- Pictures – and videos – still tell a thousand words. Issues around safety while seeking care and transparency from the health facilities were addressed by incorporating audio-visual content in these innovations to drive some degree of belief. Testimonials from users were embedded to drive better engagement and sensitisation of the users.

"We believe we can leverage technology to improve maternal and new-born outcomes through different approaches that reduce high out-of-pocket payments for health and facility dropouts"

Onyedikachi Nwizu, Head of Operations, MOBicure

"We had to keep educating our women on how to use their digital devices properly in order to improve health literacy and health outcomes through digital health solutions and innovations."

Dr. Kendra Njoku, Quality Lead/Head of Programs, mDoc

Innovations in Epidemics Preparedness

Session Moderator's Introduction

Dr. Lawal Bakare, Founder/CEO, EpidAlert

INTERNATIONAL HEALTH REGULATIONS

In 2005, the World Health Assembly (WHA) put together the International Health Regulations (IHR), which is a framework that allows the entire planet and countries that are signatories to it, to work together on the concept of protecting, preventing and responding to disease outbreaks and events of public health importance. This protects livelihood that relates to international travel and trade and not just for the sake of health.

STRENGTHENING THE CAPACITY OF COUNTRIES FOR HEALTH RISKS

To make this IHR very important, the sustainable development goals (SDGs) properly articulated this concept. SDG 3.D refers to the need to strengthen the capacity of all countries, particularly developing countries for early warning, risk reduction and management of national and global health risks.

JOINT EXTERNAL EVALUATION

This has two subsets, one that looks critically at IHR and another that speaks to the concept of anti-microbial resistance (AMR). To measure these two concepts, the World Health Organization (WHO) set up the joint external evaluation (JEE) tool to track how countries are doing. At the last count in 2019, Nigeria scored 46 out of 100 points, which represents a 7-point growth from the 2017 assessment. This means that despite the progress made, there is still a lot of work to do.

THE COST OF EPIDEMICS

$3 trillion
The amount by which global wealth will be depleted if there was a worldwide epidemic
Source: Bill Gates, TEDTalks, Vancouver, March 2015

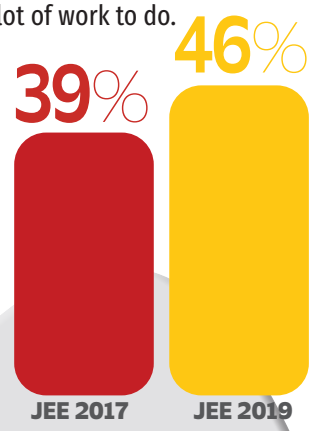
₦29 billion
The amount needed to effectively protect Nigeria from epidemics, annually.
Source: National Action Plan for Health Security (NAPHS, 2018 -2022)

$570 billion
The estimated annual global cost of moderately severe to severe pandemics, equaling 0.7% of global income.
Source: World Bank

$186m
Losses in Nigeria's GDP due to the 2014-2015 Ebola outbreak in West Africa ($600m for Guinea, $1.9bn for Sierra Leone and $300m for Liberia)
Source: Bali et al., 2016

₦3.5trn
The naira equivalent of $9.6bn that Nigeria can save annually if it prioritises epidemic prevention over pandemic control.

40 cents
The cost per person to prepare for an epidemic, globally.
Source: International Working Group on Financing Preparedness



READY SCORES OF JOINT EXTERNAL EVALUATION (JEE) FOR NIGERIA

7%
INCREASE IN NIGERIA'S JEE SCORE FROM 2017

Innovations in Epidemics Preparedness

Using Tech vs. COVID-19: Local innovation ecosystems for global health security

Dr. Andrew Nerlinger, Co-Founder, Pandemic Tech

THE INNOVATION ECOSYSTEM

Innovation communities provide the resources needed to take ideas and turn them into sustainable, usable, and successful companies. In this context, it means solutions that can stand independent of what is going on, from an outbreak perspective. These solutions are going to be ready for the next time a disease outbreak occurs after COVID-19.

HARNESSING GLOBAL HEALTH OPPORTUNITIES

Pandemic Tech noticed that there was a big gap between the global health security community and the tech ecosystem even before COVID-19. This gap has created many opportunities that need to be harnessed by the global health community. Pandemic Tech seeks to take the accessibility of a developed, sophisticated ecosystem and tries to make it more widely available.

BRINGING TOGETHER GLOBAL HEALTH SECURITY STAKEHOLDERS

Many different ways to accomplish this goal of bridging the gap between tech and global health security have been explored. Pandemic Tech has been focused on building this global innovation ecosystem in health security that brings together technologists, health security professionals, public policymakers and all the different stakeholders in global health security. The focus is this local to global model that has helped in scaling through ecosystem partnerships.

PANDEMIC TECH'S VIRTUAL INCUBATOR MODEL

Through a series of pilot projects, the team settled on the virtual incubator model. The virtual components have proven very good for COVID-19.

EpiAFRIC's Abuja Infectious Diseases Hackathon project helped figure out the thought about the pandemic type model, which has provided the springboard for the very sophisticated and emerging ecosystem in Lagos and Abuja, Nigeria for tech development.

MILESTONES

- In February 2020, Pandemic Tech launched the innovation fellowship - Pandemic Tech's global security innovation challenge. Seven fellows have joined to date.
- Pandemic Tech's first equity investments was in Wella Health, a Nigeria-based digital health company. This was a fallout of EpiAFRIC's Abuja Infectious Diseases Hackathon in 2018 - that has led to the sustained relationship in a growing and exciting company.

IN PLACE...

A health care and Houston technology incubator at the University of Texas, Texas, USA

The Texas Global Health Security Innovation Consortium, is a technology ecosystem, that brings together all the different pieces of the puzzle to try to pull resources, figure out what the best innovations are and find ways to jointly support those innovations that are growing into solutions. There's about 50 or 60, individual groups and counting, about 70 volunteers contribute to this regularly.

Innovations in Epidemics Preparedness

ADVICE FOR HEALTH CARE INNOVATORS

Health care innovators looking to connect with investors who may not have in-depth knowledge about health, would need to limit expectations. This is because venture capital investors invest in what they know. It is a hard paradigm to shake. There is a need for innovators to really focus and find people who have a sense about what needs to be accomplished and really have some belief in the importance of what is being done and the impact that it can have. Investors don't have to be experts in healthcare, but they have to be invested in healthcare, health access and health equality.

Dr. Andrew Nerlinger,

Co-Founder, Pandemic Tech

Using Tech vs. COVID-19: Local innovation ecosystems for global health security

Dr. Andrew Nerlinger, Co-Founder, Pandemic Tech

- In May 2020, Texas Global Health Security (TexGHS) innovation consortium was launched by Texas University in Texas USA. This is a technology ecosystem, working to support emerging innovations growing into solutions jointly. An example is Epistemic, which is a Pittsburgh-based data AI modelling system that makes software that simulates how infectious diseases can be used for example to impact school opening, and predict when the schools can open.

FUTURE INNOVATIONS

Pandemic Tech is focusing on the local to global model, scaling through ecosystem partnerships. Plans are ongoing for a health security accelerator that will be launched in 2022 in Geneva, Switzerland. This will be done in partnership with Techstars and Joint United Nations Programme on HIV/AIDS (UNAIDS) and their health innovation exchange.

The idea is to focus on working with local ecosystem partners that can then feed into a global infrastructure. One such ecosystem partners is the Abuja-based Ventures Platform, one of the most active investors in Nigeria for early-stage tech companies.

MATURING INVESTOR GROUPS

One of the key things in the ecosystem development is maturing groups of investors in different key sectors, around these specific issues of health care innovation. Pandemic Tech is committed to creating more and more investors who are comfortable in investing in health security related technologies.

THE NICHE OF THE ACADEMIA

The academia has proven to be the perfect connecting point between the private and the government sectors. One of the best things that Tex GHS has done is to communicate with, for example, the City of Houston or state officials to figure out what their needs are at state level, and then use that bridge to communicate with the tech community and see where they can find those solutions.

An interest in developing an application to figure out where reagent shortages were for COVID-19 testing, would throw up the need to match them with private sector partners who would be able to help meet those shortages. Having these consortia run by the academia provides a great setting, especially when it is with a prominent university – like the University of Texas – as those connections are already within the university.

Innovations in Epidemics Preparedness

SORMAS: A digital approach to surveillance and outbreak management in Nigeria

Dr. Lois Olajide, Head of SORMAS, Nigeria Centre for Disease Control (NCDC)

THE BEGINNINGS

The Ebola outbreak in 2014 led to the development of a mobile application system that was used for tracking and monitoring suspected Ebola cases.

Existing disease surveillance and response systems available were inadequate due to:

- Backlogs of unreported cases
- Delay in reporting of cases
- Failure to encompass all components involved in the country's disease surveillance and outbreak response, like contact tracing, release communication, and infection, prevention and control (IPC)
- No interlinkage between cases or their contacts
- Delayed feedback and poor bi-directional information exchange
- Inability to handle larger and more complex outbreak and
- Inability to use algorithms that would help to trigger outbreak response measures

SORMAS PLATFORMS

Surveillance, Outbreak Response Management and Analysis System (SORMAS) is a:

- mobile application, which is used in areas where internet connectivity is poor
- web application for supervision and monitoring of activities
- *modus operandi* covering case investigation, contact tracing, event data line, sample testing and the monitoring and analysis of the data

THE SORMAS ADVANTAGE

The SORMAS system is used at all administrative levels of the public health system. It was developed to ensure that there is timely and ubiquitous surveillance and a system that has all the outbreak management and analysis and reporting functionalities. The design and improvement are based on the feedback obtained from the different users. SORMAS allowed for the adoption of a more coordinated approach to data collection, analysis and presentation for decision-making in the multiple outbreaks in Nigeria between 2017 and 2018.

SORMAS DEPLOYMENT FOR COVID-19

SORMAS is very instrumental in Nigeria's response to COVID-19. The system allows for:

SORMAS: THE DIGITISATION OF IDSR

sormas

SORMAS is a mobile system that is concerned with the digitalisation of IDSR. It is used for rapid collection, reporting, analysis of disease and events data in real time so as to take public health action.

SORMAS FOR OUTBREAKS

Since its development and deployment, SORMAS has been applied in disease surveillance and response to several outbreaks like:

Monkeypox

Cerebrospinal meningitis (CSM)

Lassa fever

Innovations in Epidemics Preparedness

THE FUTURE OF SORMAS

SORMAS's main goals are to:

- Ensure complete phase out of paper-based reporting
- Be deployed to all health facilities. This will ensure real time reporting from these facilities.
- Collaborate with other NGOs and partners, like NAFDAC, Federal Ministry of Agriculture and Rural Development, (FMARD) and the Federal Ministry of Environment (FMEnv)
- Support deployment of SORMAS in other African countries

SORMAS: A digital approach to surveillance and outbreak management in Nigeria

Dr. Lois Olajide, Head of SORMAS, Nigeria Centre for Disease Control (NCDC)

- Availability of real-time data and detailed analysis which led to the identification of cluster of cases and the epicentre of the epidemic
- Identification of risk factors for infection and fatality which informed the response activity in terms of risk communication and IPC measures that are put in place
- Focus on the positive cases thereby ensuring prompt isolation and management of cases. This is achieved by:
  - the automatic release of negative results from the SORMAS platform by SMS.
  - the automatic transfer of contact information from the SORMAS platform to the NCDC connect centre for automatic calls to such contacts which enables prompts, testing and isolation once such contacts become symptomatic.

BENEFITS OF SORMAS

- The availability of real time data, and its analysis via SORMAS led to the decentralisation of all surveillance activities and testing at the lower levels
- SORMAS provides detailed epidemiological analysis which revealed that 20% of Nigeria's local government areas were actually responsible for 70% of the cases that were recorded
  - This led to the development of a hotspot strategy, which entails enhanced surveillance activities, contact tracing, IPC in these areas.
  - This analysis also led to identification of states with high burden of disease and low contact to case ratio.
  - This informed the engagement, training, and deployment of community health workers for active case search and contact tracing.
- Identification of healthcare worker infection, which informed the targeted IPC trainings that were conducted in these areas

WHERE ARE WE WITH SORMAS?

At the moment SORMAS is deployed in all the 36 states of Nigeria, including the Federal Capital Territory and in 153 priority facilities.

- Some facilities are prioritised by the state in terms of the type of disease managed. For example, SORMAS is deployed in Lassa fever designated treatment centres and facilities designated for the treatment of diseases like Cerebrospinal meningitis (CSM) and yellow fever
- SORMAS is deployed in 26 laboratories that cut across 21 states in the country
- There are approximately 3,000 SORMAS users, including state and local government surveillance officers, health facility surveillance focal persons, clinicians and medical laboratory scientists

Innovations in Epidemics Preparedness

Drawing lessons from COVID-19: Innovations in healthcare delivery in Africa

Dr. Moredreck Chibi, Regional Advisor for Health Innovation, World Health Organization (WHO) Regional Office for Africa

AFRICA'S HEALTH DYNAMICS

Some health indicators in Africa's evolving socio-economic dynamics, due to increasing youth population, and unplanned rural-urban migration coupled with current epidemiological changes and unfolding COVID-19 challenges have thrown up the need for innovative solutions for health on the continent.

THE FUTURE OF HEALTH IN AFRICA

The region has registered the lowest scores despite global progress in some of the health indicators. For instance, reducing deaths among mothers and children, empirical evidence actually shows that the future of health in Sub-Saharan Africa will be underpinned by the development and adoption of homegrown innovative solutions that will be adapted to country- specific needs.

THE AFRICAN INNOVATION LANDSCAPE

In the past decade, Africa has made a notable shift to the innovation landscape. Innovations, imaging technologies and digital solutions are being deployed in current health systems. Therefore, it was quite encouraging to note, that, coordinating pandemic galvanized the development of more than 120 technological innovations that have either been piloted or adopted in Africa.

COVID-19 RESPONSE IMPETUS

With respect to COVID-19, Africa is one of the continents at the forefront of harnessing and deploying technology to strengthen COVID-19 response.

The pandemic has provided additional impetus on the need to invest in innovation and to put in place right policies and strategy frameworks to unleash what we call African ingenuity and creativity.

INNOVATION COMMITMENT WORLD HEALTH ORGANIZATION (WHO)

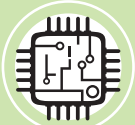
WHO is very much committed to being a key player in promoting uptake of local innovations as a gateway to achieve sustainable impact. WHO launched its inaugural innovation challenge in 2018, where more than 2,500 innovations were unearthed. Out of these, 30 best-profiled innovators were selected and are being supported on a need basis, in their scaling journey. 94% of the innovators have made some quantifiable progress in scaling up their solutions. Their self-sustaining business models are quite encouraging.

THE WHO TECH INNOVATION STUDY

The World Health Organization (WHO) conducted a study to provide an insight on the global landscape for technological innovation that were deployed for COVID-19.

58%

WERE INFORMATION AND COMMUNICATIONS TECHNOLOGY (ICT) DRIVEN

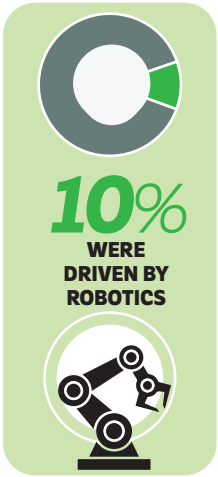


25%

WERE BASED ON 3D PRINTING, ESPECIALLY IN DEVELOPING PPEs

Innovations in Epidemics Preparedness

THE WHO TECH INNOVATION STUDY



All these innovations were applied in different response areas that include surveillance, contact tracing, community engagement, treatment laboratory systems, infection prevention and control (IPC)

Drawing lessons from COVID-19: Innovations in healthcare delivery in Africa

Dr. Moredreck Chibi, Regional Advisor for Health Innovation,World Health Organization (WHO) Regional Office for Africa

RELEVANT SOLUTIONS

This demonstrates that African innovators can develop and scale solutions to meet pressing health demands. These solutions are not only relevant to their own communities, but are relevant across the entire continent with demonstratable impact on the health system.

A CROSS-SECTORAL APPROACH

Innovators continue to face challenges despite the progress made. These challenges require a cross sectoral approach involving government, private sector, regulators, funders, educational institutions, research bodies, development partners like WHO, from the health sector, even education technology, financing infrastructure and other domains.

SCALING UP HEALTH INNOVATIONS

WHO has since developed a regional strategy to scale up health innovations geared towards strengthening countries' innovation system – to make them more responsive to the innovation needs of the African population.

The challenges faced by innovators have inspired WHO at the African region to play a valuable role in supporting scaling of health innovation via:

- **Advocacy to increase their visibility,** supporting these local innovations at the highest level with government
- **Connecting innovators to valuable network of contacts** that can support scaling their solution
- **Engaging countries in strategic dialogue** as a way of building capacity with the local and regional innovation ecosystem

Innovations in Epidemics Preparedness

Session 2 Takeaways

- For Nigeria and indeed African countries to meet the international health regulations (IHR) requirements and continue to grow the joint external evaluation (JEE) numbers, there is a need to bring in the technology ecosystem and indeed the entire business ecosystem to play contributory roles.
- Health care innovators looking to connect with investors need to limit their expectations. They would need to focus and find those who can see what can be accomplished with the innovations and have some belief in the impact of same innovations. They would have to help the investors with simpler indicators that they can relate with due to the complex nature of health care.
- Without doubt, one of the few positives of the COVID-19 pandemic is that people now understand that investment in health security is an opportunity. The commercialisation and the technology component of health innovation needs is the ideal way to engage the private sector.
- Africa is locking arms in the COVID-19 response and that is throwing up an opportunity to coordinate better.
- Government or other key stakeholders should support the scaling of innovation that serves the local communities so that they are in the centre of it all rather than being spectators. Policy guidance on identifying needs and assessment or some of the things from an equity point of view, would be critical in bringing everyone on board.
- Good surveillance data is a springboard for the rest of preparedness to kick into action. With SORMAS guaranteeing community-level quality data, early preparations can be done even at the community level.

"I think we can go beyond training and start looking at even product development and service design, and then government begins to rally around that."

Dr. Lawal Bakare,
Founder/CEO, EpidAlert

"The COVID-19 pandemic has galvanised more than 12.8% of the 1000 new or modifications of existing technologies that have been developed worldwide in Africa to improve our healthcare; this would have not been possible otherwise."

Dr. Moredreck Chibi,
Regional Advisor for Health Innovation, WHO Regional Office for Africa

"We can completely do away with paper-based records, to improve our response to emerging disease outbreaks and maintain an effective response to the current COVID-19 pandemic."

Dr. Lois Olajide,
Head of SORMAS, NCDC

Innovations in Primary Health Care

Session Moderator's Introduction

Moderator: Adaobi Ezeokoli, Editor-in-Chief, Nigeria Health Watch

WHAT PRIMARY HEALTH CARE ENTAILS

Primary health care is critically important. It is the basis for achieving universal health coverage (UHC). First published in 1978, primary health care through the Alma Attar Declaration, points to essential care. It is the provision of essential care that is made universally accessible to individuals and families, and at a cost that the community and the country can afford.

BETWEEN PRIMARY HEATH CARE AND UHC

Primary health care is positioned as the driving force or the hope of achieving UHC. UHC is the provision of accessible, affordable quality care to the majority of people without geographical, social or financial barriers. The world will only become healthy when health for all is achieved.

EVOLUTION OF A COMMUNITY AND PEOPLE-ORIENTED HEALTH SYSTEM IN NIGERIA

There have been several attempts at evolving and sustaining a community and people-oriented health system in Nigeria. Between 1975 and 1980, the Basic Health Services Scheme (BHSS) was instituted. Model primary healthcare was developed in 52 pilot local government areas (LGAs) between 1986 and 1992. In 2001, the National Primary Health Care Development Agency (NPHCDA) was established. It took over the task of making basic healthcare services accessible at the grassroots. Between then and 2001, the ward health system was instituted, and over 500 model health centres were established across Nigeria by the Federal Government. These model centres served as the fulcrum for the establishment of the ward health system.

REVITILISING PRIMARY HEALTH CARE

There have been several efforts made at revitalising primary healthcare in Nigeria. These include the Midwives' Services Scheme, having PHC reviews, the National Health Management Information System (NHMIS) - to help with health data management - and Maternal and Newborn Child Health (MNCH) Weeks. There was also the recent Primary Health Care Under One Roof (PHCUOR) policy. This is a policy designed to help reduce fragmentation in the delivery of primary health care services and involves the integration of all PHC services under one authority. The National Council on Health (NCH) approved this policy in 2011. In addition, the Basic Health Care Provision Fund (BHCPF) was established under Section 11 of the National Health Act (NHA). BHCPF is the principal funding vehicle for the basic minimum package of health services. The fund serves to increase the fiscal space and overall financing of the health sector to assist Nigeria achieve UHC.

MAKING THE CURRENT SYSTEMS WORK

Innovations in primary healthcare are needed to make the current system work and make it accountable. These innovations will ensure that all Nigerians have access to affordable quality healthcare, and ultimately help Nigeria achieve UHC as a country.

- **Funding constraints:** making adequate provision in national, state and local governments' budgets is critical to deliver quality health care
- **human resource issues**
- **leadership and governance**
- **accountability,**
- **poor involvement of the private health sector**
- **health data management**
- **fragmentation**

Primary healthcare services are not third-class services meant for third class citizens, they're meant to enable us to have healthcare reach the vast majority of people.

Adaobi Ezeokoli, *Editor-in-Chief, Nigeria Health Watch*

Innovations in Primary Health Care

The long road to accessible primary health care

Dr. Shubha Nagesh, Director, Research & Follow-up Programs, Latika Roy Foundation

PRIMARY HEALTHCARE IN THE CONTEXT OF DISABILITY

Disability prevalence is higher in developing countries where people with disabilities are more likely to experience less education, poor health outcomes, low levels of employment and high poverty rates.

People with disabilities need the same general health care services that are required by others but often at an increased frequency and intensity. They also usually require a variety of specialised services that people without disabilities do not generally need.

COVID-19 AND PEOPLE LIVING WITH DISABILITIES

The COVID-19 pandemic has forced attention beyond isolation, disconnection, and diminished services for people with invisible disabilities. COVID-19 has laid bare the exclusion and long-standing systemic inequalities against people with disabilities. Risks of infection and mortality are higher amongst the disabled.

SOMETHING ABOUT INCLUSIVE CULTURE

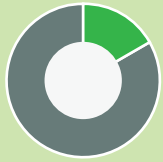
Inclusion or inclusive culture is not a box tick. It's not a decoration. It cannot be outsourced to someone else because being inclusive is an active decision and a deliberate decision. It is a way of being, and it is a way of shuffling up to allow space for others. It is about sharing power and being open. It requires not just the process but also the result itself.

THE COST OF EXCLUSION

A recent report by the World Bank has shown that exclusion is very costly to both societies and to economies. At the individual level, these costs include poor educational outcomes, mental and physical health, and lost wages and lifetime earnings. At the national level, the economic cost of exclusion of people with disabilities are captured by forgone GDP and human capital wealth.

Accessibility is the ability to access the functionality and the possible benefit from a primary healthcare system. All people with disabilities want the possibility to contribute with dignity and respect. Although the law promises this equality of opportunity and accessibility, practices often fail and deny them what the law promises.

DISABILITY STAT



15%

OF THE WORLD'S POPULATION EXPERIENCE SOME FORM OF DISABILITY, WITH CHILDREN AND YOUNG PEOPLE CONSTITUTING ALMOST 4 TO 6.5% OF THE POPULATION IN MANY COUNTRIES.

Innovations in Primary Health Care

ROLE OF DISABILITY

"People with disabilities have been left out of the world's COVID-19 response. Disability helps to confirm and confront the structures that are not working, and it is the only minority group that one can join at any time and it is in our best interest to pay attention to the outcomes."

Dr. Shubha Nagesh, Director, Research & Follow-up Programs, Latika Roy Foundation

The long road to accessible primary health care

Dr. Shubha Nagesh, Director, Research & Follow-up Programs, Latika Roy Foundation

PRIMARY HEALTH CARE FOR PEOPLE WITH DISABILITIES

Disability helps us to confront things that are not working for us in society. A case in point is the Primary Healthcare. As the most common entry point, primary healthcare is the pathway to universal health care. It addresses the majority of a person's healthcare needs throughout their lifetime. However, for people with disabilities, particularly children, diagnostic capacity is lacking.

GAPS AT THE PRIMARY HEALTH CARE LEVEL

- Diagnosis of disabilities remains the weakest link. Staff at primary health facilities are not trained to understand disabilities, pick up red flags or provide therapy and intervention. Specialist services that map the need for physiotherapists, occupational therapists, speech and language pathologists although necessary, are also missing.
- Attitudinal barriers. Disability is a matter of perception and personal definition and beliefs are crucial because they may sanction and legitimize assumptions about disability and associated discriminatory practices.
  - Many people with disabilities believe that the greatest barrier to full participation in society is the biased attitudes and the behaviour of people around them without disabilities.
  - This is rampant in peripheral health facilities and is one barrier that absolutely needs to be overcome.

POSSIBLE SOLUTIONS

- Deliberately involve people with disabilities.
  - Put families in control of design and delivery of their care packages and services, and allow them to shape the services that are meant for them.
  - Include people with disabilities who have personal connections to disability issues, who have in-depth policy and activism experience.
- At the primary healthcare level,
  - Improve provision of information, greater transparency and service provision.
  - Services should be responsive and timely. Prioritization of needs is crucial for early intervention in disability.

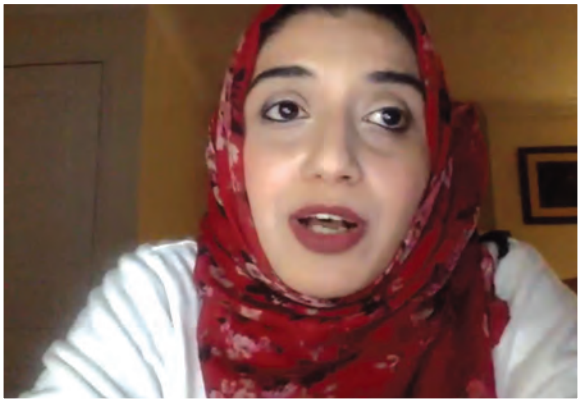
INNOVATION IN DISABILITY

Innovation in disability requires research and connection with the disability community with an open mind and egos in check. Innovation in primary healthcare for the disability community is unique, and is related to attitudes, compassion, empathy, and connecting with the disability community. However, the good news is that with intentionality and investment, we can get this job done together.

Innovations in Primary Health Care

MobiHealth: Redefining access to health care

Dr. Tazeen Rizvi, Head of Operations, Mobihealth International



REFORMING INCLUSIVENESS

Mobihealth International is a revolutionary telehealth platform and company providing inclusive and sustainable products and services. It is a Pan-African outlet, currently operating in Nigeria but with plans of going global. It is a fully integrated telemedicine flow portal - the platform provides a continuum of care asides video consultations.

CHANGING ACCESS TO PRIMARY HEALTHCARE

Through integration with service providers, Mobihealth platform provides patients with access to doctors across all specialty, speaking all the local languages, physical doctors, ambulance services, lab test services and admissions through the platform.

Mobihealth is completely changing how to access primary care across Nigeria, providing comprehensive care and making primary healthcare accessible to all segments of the population. With the platform, common communicable diseases like malaria and diarrhoea can be addressed by seeing a doctor via the platform.

THE TARGET POPULATION

The target population for the platform range from people who do not have phones to those who have phones with enough mobile bandwidth. Patients can take a 20-minute consultation with a doctor from anywhere in the world.

THE HOW-TOS

A client can download the app, register on the platform, choose a doctor and access the chosen doctor's schedule. For example, if a doctor's appointment is required on demand, in five minutes, clicking the doctor's appointment slot throws up the opportunity to have a chat with a doctor.

WHAT IS MOBIHEALTH ADDRESSING?

Challenges being addressed include: a shortage of doctors and lack of health insurance, poor access to health, lack of poor health infrastructure and counterfeit drugs

- Mobihealth addresses the brain drain and shortage of doctors through the telemedicine platform by giving access to the same doctors, speaking the same language, who are from same communities, but are not physically present.

THE 8-STEP MOBIHEALTH PROCESS

Mobihealth

1. Download Mobihealth Consult app
2. Register on the app for free
3. Log in to the Mobihealth account
4. Create a profile
5. Choose a subscription plan
6. Book an appointment with a doctor
7. Start online consultation
8. All data saved in the Mobihealth app

Innovations in Primary Health Care

BY NUMBERS

>10,000

DOCTORS CONNECTED TO CLIENTS GLOBALLY ON THE MOBIHEALTH WEB AND MOBILE (iOS AND ANDROID) APPLICATIONS

This means doctors can be anywhere in the world and with the use of the Mobihealth App can attend to patients in Nigeria.

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- Mobihealth is reducing the long waiting lines in the hospitals by providing an efficient patient management system on the platform. More than 70% of diseases, experts say, can be easily treated via telemedicine. For example, cases of malaria, diarrhoea, diabetes check, hypertension check can easily be managed while seeing a doctor on the platform, so such patients do not have to visit the hospital or wait in long lines.

WHAT CAN BE DONE ON THE PLATFORM?

The online consultation feature works like a real-life scenario.

- There is a joint consultation room button on the platform where oonce a patient and a doctor are, it feels like you are sitting in the same room with the doctor
- During the consultation, there is a comprehensive soap note, and clinical documentation of forms on the platform
- The doctor is able to note all the complaints and history of present illness during the consultation. E-prescriptions, requesting lab tests and radiology imaging are also possible on the platform.
- It is possible to transcribe from the platforms
- All activities done on the platform during a consultation are saved on the platform and become part of the patient medical record with access provided to the patient

SERVICES OFFERED

- A mobile application smartphone
- Toll-free lines to call in and speak to a doctor because a high population of Nigerians do not have access to smartphones and internet connectivity
- Telehealth clinics that offer 'walk-in' features to see doctors. The tele-health clinics are fitted with a screen that has the mobile health application on it. On logging in, there are nurses who provide guidance towards seeing a doctor online. There is an inbuilt pharmacy and a point-of-care equipment that is integrated to the platform
- Point-of-care testing, natal services and mental health services are other available services

CREDIBILITY AND AWARDS

- Mobihealth is Health Insurance Portability and Accountability Act (HIPAA) compliant. This is a security and patient confidentiality international standard.
- Partners are in Nigeria and beyond.
- Mobihealth has been recognsed as 'Winner of SDG and HER global awards' from the World Bank, Sanofi Tech award, and the 2020 Bill and Melinda Gates Grant Awards

Innovations in Primary Health Care

Achieving primary health care integration by leveraging technology and innovation

Dr. Adebowale Odulana, Founder/CEO, Doctoora

WHY DO WE NEED TECHNOLOGY?

There are primary healthcare facilities in very hard-to-reach communities, established long ago with facilities that predate the current needs of the communities. It is usually very difficult to get essential health care and resources to facilities in these communities. This makes it important to look at integrating health care to ensure that people are not left out of the safety net.

INTEGRATION OF CARE

Integration of healthcare requires a completely different perspective. Primary healthcare goes beyond the facilities. This philosophy encompasses providing basic healthcare needs to the people. Therefore, it is important to consider the different components of primary healthcare with the aim to efficiently integrate all the cadres of care and redistribute the healthcare provision back to primary healthcare.

THE DOCTOORA ADVANTAGE

Real integration involves integrating the facilities, assets and infrastructure. Infrastructure is limited in these climes. Therefore, there is a need to consider the virtual integration that enables the use of mobile technology to bridge these gaps. Doctoora provides rentable medical facilities to healthcare professionals so they do not have to be confined to a location. Healthcare professionals can roam from location to location to deliver healthcare services.

SEAMLESS OR INTEGRATION OF CARE

The establishment of 10,000 primary healthcare centres in the 10,000 wards of the country will still come with capacity constraints and the problems of maintenance. Nevertheless, the establishment of primary healthcare providers per ward with a mobile phone and connection to all the other health care services will ensure that people in the community get the best care. This is a better solution. This connectivity is what is referred to as a seamless integration of care.

THE REQUIREMENTS FOR INTEGRATION

Technology is extremely important for integration and will require:

- Electronic health records,

HOW DOCTOORA WORKS

DOCTOORA

Doctoora makes healthcare simple and accessible for all. The healthcare providers on the platform are vetted and ready to help patrons to get the care they need, anywhere and anytime. Doctoora is focused on optimising healthcare services delivery so that patients can enjoy quality healthcare at affordable rates. By building an ecosystem for caregivers and their patients to connect directly, bridging the gap and demystifying healthcare consultation, desired results are achieved

1. Select type of care
2. Search for available providers
3. Select preferred caregiver
4. Pay for appointment

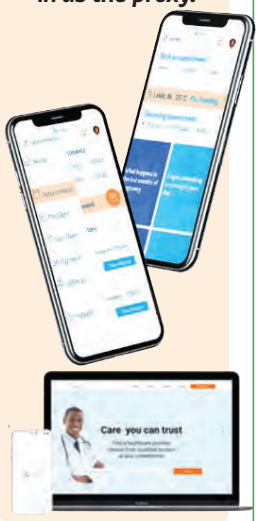
Innovations in Primary Health Care

THE DOCTOORA EDGE

Doctors don't have to worry about going to set up facilities in rural areas. Doctoora sees to that with the help of partners. Doctors just have to worry about their transportation to those locations, to be able to deliver services.

Partners – like My Pharmacy – who are always eager to go the whole hog, provide medicines once the consultations are done.

Doctoora is also able to do a lot of task shifting because if the doctor can't make it there, then a community health worker or the pharmacist will step in as the proxy.



Achieving primary health care integration by leveraging technology and innovation

Dr. Adebowale Odulana, Founder/CEO, Doctoora

- Cloud storage
- Communicating systems that allow the pharmacy communicate to the diagnostic, consultation and other units as required
- Mobile technology
- SMS & AVR
- Internet
- Electricity
- Efficient logistics for diagnostics
- E-Phamarcy

FIVE KEY SERVICE DELIVERY UNITS IN PRIMARY CARE

- Consultation service delivery unit
- Diagnostic service delivery unit
- Treatment and accommodation service delivery unit
- Health education service delivery unit
- Feedback and quality assurance service delivery unit

Effective integration of service delivery at primary healthcare requires connecting all these units.

ROLES OF PRIMARY HEALTH SYSTEM

- Preventative Health
- Consultations
- Access to Quality Medicines
- Quality Health Workforce
- Health Education
- Community Engagement

INTEGRATING HEALTH SERVICES ACROSS MULTIPLE LOCATIONS WITH TECH

It is important to reconsider the operational methods in place for primary health care to achieve significant improvements. This need for change is what births innovation in health care services and innovation in healthcare service delivery alike. This collaborative effort involves all stakeholders in healthcare, patients, government and service providers. This requires effective and efficient communication between providers and consumers of health.

Innovations in Primary Health Care

Session 3 Takeaways

- Reducing the need to have smartphones to connect on the platforms is key. Basic USSD integrations provide a great alternative.
- Plans of augmenting telehealth clinics into the primary healthcare setups are already underway. This is a key step in providing an add-on service at a minimum price and using doctors to fill that gap where there are no doctors
- Working with communities to create tailored solutions for those communities is also key. It is worthwhile to ensure that people can be educated. With that basic education, they do not have to travel long distances for treatment for an ailment like malaria because they know that they can stop by at the designated health educator's house to get information or pamphlets, read up, get some malaria nets and all of that. Creating this network would be the major theme in solving this problem.
- It is important that we continue to innovate, to ensure that we are able to expand basic services and affordable quality services to all Nigerians.
- There is a need to change current ways of working if significant improvements in health care will be achieved. This change of ways of working is essentially what innovation in healthcare services and innovation in healthcare service delivery is about. This requires collaboration.

"How do we integrate healthcare to make sure that people are not totally left out of the safety net? We need to focus on what the community and the individuals need. This requires a lot of collaboration from everybody."

Dr. Adebowale Odulana,
Founder,/CEO
Doctoora

"Affordability is definitely one of the challenges for a lot of the players in the Nigerian healthcare market. We are catering to all segments of the population. We have subscription plans that cater to our premium clients, and also mass subscription plans for the underserved population."

Dr. Tazeen Rizvi,
Head of Operations,
Mobihealth
International

"We need to strengthen the capacity of all countries for early warning, risk reduction and management of global health risks."

Dr. Lawal Bakare, Founder/CEO, EpidAlert

"COVID-19 has thrown up the need to rethink how we deliver healthcare to Nigerians. I think collectively, if we keep on working, keep on thinking of ways to improve healthcare in Nigeria, it is a good thing and this just charts a positive way forward for all of us."

Vivianne Ihekweazu, Managing Director, Nigeria Health Watch

Call -to-Action

- It is important to invest time and effort to improve digital literacy and to improve health literacy and self-care.
- The goal of innovations is not to replace the role of health facilities, or doctors per se, but really to complement what is on offer at the health facilities. Using technology, cooperating and coordinating across the different sectors is very important.
- Patients still want to be able to see their doctors. But with COVID-19, there is a need to leapfrog some of the ways that health care is currently being delivered. By deploying technology, the gap between health facilities and the patient is ultimately reduced.
- There is no need to reinvent the wheel when we look at innovation and technology as there is a lot to be learned from how non-health sectors are dealing with some of the challenges they face.
- The use of SORMAS as a means of digitalising the IDSR model to be able to report in real time, cases of infectious disease outbreaks, can be leveraged to similarly develop innovations to account for maternal deaths in communities across Nigeria. Similar models can be deployed to also digitalise, for instance, the Maternal and Prenatal Death Surveillance and Response (MPDSR) system.
- Continuously, there is a need to improve access to primary healthcare. Innovations in primary healthcare are bringing primary healthcare into communities. Access to healthcare for patients in hard-to-reach areas can be improved by using technology to ultimately bridge gaps, inform and empower them.

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