**DIHAD Presentation – Shaping African Futures… beyond COVID-19**

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Your Excellences, Distinguished guests, Ladies and Gentlemen. Good afternoon. It gives me great pleasure to be part of this important conversation on Shaping African Futures … beyond COVID-19.

My contribution will focus on the medical and health sector, and how clinical and public health are likely to shift beyond COVID-19.

COVID-19 will not be the last pandemic we have to deal with. Ebola is still an issue as we speak. With the ongoing climate change we can expect to see more and more pandemics.

So, what might the new normal beyond Covid-19 look like?

1. We all agree that there is **a new public health order** that is coming because of COVID-19. There is **a shift that is taking place**, and the question is how well Africa can adjust to this.

A key issue is **healthcare system preparedness** - COVID-19 is not just a health but an economic and humanitarian crisis as well. Africa, like the rest of the world, was ill-prepared for the pandemic.

Going forward we need **health system strengthening** for better preparedness of healthcare systems to deal with epidemics and pandemics.

This starts with **strengthening our Continental Institutions** – whether it’s **the Africa CDC** or the **Africa Medicine Agency** when ratified.

Additionally, each country on the Continent must **strengthen its national healthcare institutions**, to provide the required **early warning** in case of outbreaks, and **to have the capacity for early and effective response**.

1. Healthcare systems strengthening **needs increased investment and spending**. **Countries must see expenditure in health as an investment** rather than just money down the drain. **Advocacy** is required for this. **Policy** and **political will** are required. There is quite a bit of waste within many healthcare systems and trimming the fat would allow reallocation of available resources to critical areas that can support healthcare system strengthening while we await the increased investment.
2. A third issue that the pandemic heighted is that **Africa must start manufacturing what she needs** – we must **rethink our supply chains and their resilience** – the fact that transportation systems were interrupted, and big ships stopped by this small virus re-emphasized the need for **sovereign capability for food, medicine and other critical supplies domestically**. And the need to establish **regional packs with onshore manufacturing**.

As an example, several African countries had **local manufacturing of PPEs** - **in particular masks**. We (AAH-I) work in refugee camps, and existing sewing capacity was used to produce masks locally. And locally produced masks were significantly cheaper than imported ones. Going forward a re-examination of what else can be done to boost local production will be important.

A second example is **Local Oxygen production** – in Kenya, HewaTele (which directly translates to Plentiful Air), has utilized technological innovations to have oxygen produced in smaller plants that supply oxygen to healthcare facilities within a defined radius. Set up as a **public private partnership** (PPP), oxygen is able to reach patients from a closer source at half the previous cost. Such local innovations have meant that even when traditional supply chains were disrupted, an essential product, oxygen, continued to reach healthcare facilities and patients as required. Coupled with the necessary **training of facility healthcare workers** this has been life-saving. Going forward the plan is to expand this not just in Kenya but across the continent.

**Other innovations around oxygen** have seen **solar powered oxygen concentrators** that are **smaller, lighter and easy to use** come into being.

1. **The COVID-19 Vaccine** – this was **developed with unpreceded speed.** Collaborations between governments, donors, private sector, non-government organizations, private citizens and other stakeholders were seen. They are what made the WHO-led COVAX program possible. **That this was possible presents a great opportunity** going forward.

**Vaccine equity** - the issue of vaccine equity is however a current and ongoing one and we heard the WHO Director General speak about this.

Vaccine stockpiling and hoarding by a few rich countries while human lives continue to be lost every single day across the world will continue to delay the benefits that we can all derive from this.

The stark and disturbing picture of African countries standing at the tail end of the vaccine queue as a handful of rich and powerful countries hoard this essential intervention should be a wake-up call for African leaders. Africa can no longer continue standing at the tail end of the queue on this and other important matters of life and death import to her citizenry.

**Local manufacture of vaccines** – Africa manufactures many of the animal vaccines used on the continent. This means that the know-how, technology and human resource exists to support this. The question is why this same capacity cannot be used for the local manufacture of the COVID vaccine. **Systemic barriers, intellectual property rules and the existing world order that puts profits ahead of the imperative to save human lives** need a critical re-examination.

For Africa (and other developing countries), the need to utilize and build upon the existing capacities for local production of vaccines and other essential therapeutics cannot be over-emphasized. We have the know-how. We have lives to save.

There is therefore a great imperative that going forward African Governments and the relevant regional and global organizations engage at the global level and step up to the challenge to negotiate for the rights for local manufacture, and further build local capacities for the local production of vaccines and other essential healthcare requirements.

One could argue that under the **World Trade Organization** mechanisms such as **TRIPS** (Trade-Related Intellectual Property Rights) exist that **can be invoked in cases of emergency to get compulsory licensing for manufacture of essential supplies**. But the question is, is that the best way forward with this?

Would **negotiations with the pharmaceutical companies** to build capacity for local manufacture of these vaccines in Africa for Africa be a better way to go? Africa has a population of more than 1.34 billion people (2020), and a Total GDP of $2.33 Trillion (2020). This is clearly a market well worth looking at, and Africa needs to negotiate as one. Negotiating as one will allow Africa to leverage its collective market; a rather different situation compared to each of the 54 countries trying to negotiate as their much smaller entities.

Tied to this is the issue of **Vaccines for other diseases** - the COVID-19 vaccine was developed in record time. But what does this say about **other diseases, such as HIV and malaria** where no vaccine has been developed 20, 30, or more years down the line? If we can **show the same urgency and acceleration** in regard to these other health issues, we will get far.

1. **Ensure that Policy Makers** at the highest level on the Continent **appreciate Public Health as the cornerstone of healthcare on the continent and an important investment**.

It has to be **back to basics – recognizing the central role of Public Health in healthcare systems** – as we think about **increasing efficiencies** in the health care system. Going back to the basics of good public health is part of what greatly helped the COVID-19 response on the African continent. **A focus on prevention** rather than waiting for people to get ill and then treat them was very helpful in flattening the curve. Many African Governments acted fast to step up **basic hygiene measures like hand washing, widespread use of facemasks and social distancing,** effecting curfews, lockdowns, and banning public gatherings in support of this. And this not only helped flatten the Covid-19 curve in many African countries, it also yielded benefits in other areas such as a reduction in childhood diarrheal diseases.

For a long time there has been a **disproportionate focus on the medical side of healthcare at the expense of public health**. This refocus on public health efforts alongside therapeutics as we await the vaccines and other treaments should re-awaken us to the importance of this sometimes **neglected facet of healthcare**.

**Addressing co-morbidities** that have been found to increase disease severity and mortality from COVID-19 – particularly hypertension and diabetes – is re-emphasizing the need for **attention to the non-communicable diseases** that tend to be forgotten in the double whammy of communicable diseases and NCDs in many developing countries.

We have to remember that good health requires us to address a range of issues, including **social determinants of health (e.g. poverty, malnutrition, economic/social/gender inequities)**, many of which have been worsened by the focus on COVID at the expense of other issues.

There is also need to **strengthen cross-sectoral collaboration** e.g. linking the healthcare system to the school system when it comes to dealing with adolescent health.

1. **Homebased care** – by promoting homebased care, COVID-19 patients that could be safely managed at home were encouraged to do so and **Ministry of Health guidelines on this widely shared**. This fits in well with **Africa’s cultural practices of caring for loved ones, including the elderly, in extended family home settings**. This provided a great relief to hospitals and other inpatient facilities that would otherwise have been quickly overwhelmed by the numbers. Previous work on **homebased care** and **community management of childhood illnesses**, **HIV/AIDS and other chronic illnesses** thus came in handy here. Going forward, Africa needs to **make a deliberate effort** to **innovate around homebased and community based care.** We need to **formally recognize** it as an **important component of the healthcare system. African Governments need to invest** in it if we are to continue to derive benefit from this.

**Complimentary healthcare measures** - the renewed focus on **good nutrition**, **use of immune boosting measures** such as increased fruit and vegetable intake for Vitamin C, Zinc, etc. time in the sun for Vitamin D, and other traditional supportive measures such as steaming, etc. - reminded us that measures that our grandmother’s recommended as we were growing up do still have a place in the practice of modern medicine.

1. **Mental health** – there has been increased recognition of the importance of mental health. The **mental health infrastructure** on the Continent was already **underdeveloped**, with a **severe shortage of mental healthcare workers**, **inadequate access to medicines** **and other interventions**, and the **stigma** associated with this. **The COVID-19 pandemic just further** **exacerbated** this and helped point a spotlight on it. It was encouraging to hear that Japan has appointed a Minister for Loneliness, and other countries have made movement in that direction. **In Africa a lot more needs to be done to more effectively address mental health** both amongst the general population and healthcare providers, as well as other caregivers.
2. **Technological revolution** **and telemedicine** – the **rapid and accelerated digitalization** that took place during the COVID-19 period was unprecedented. The stay-at-home orders led to greater use of electronic tools. How can we **further leverage this for healthcare**? How do we **use technology to leapfrog** some of the challenges currently facing us on the African continent?

Smart working, **using a hybrid approach of both in-person and tele-consulting methods**, can deliver great benefit within the healthcare system. The rapid digitalization, if leveraged to further strengthen **telemedicine,** will aid in bringing medical expertise to where it is needed, reducing the need for traveling and easing access to clinicians for patient consultations.

**Digital connectivity**, whilst improving, **is still limited and slow in many African settings**. The COVID-19 pandemic re-emphasized the need **for developing the digital ecosystem** - on top of the traditional infrastructure (good hospitals, roads, etc.) now **good Wi-Fi and additional health hardware and software is required**.

There is therefore need to **beware of further widening the** **digital divide** where gadgets, internet access, cost, etc. continue to leave behind poorer communities.

The current situation has been to run a **hybrid system** where **technology is deployed at the level of Community Health Workers** (CHWs), **and they then act as the connection to communities and the homebased care being provided**. CHWs can **access updated information**, **get focused trained**, **get questions answered** **through the digital systems**, allowing them to be **better equipped in service to the communities**.

To see how this might be further developed in the future consider the following:

**Mobile payment systems** – I come from a country, Kenya, thathas been a pioneer in mobile payment and banking systems via the now well-known M-pesa system. During the pandemic when the Government moved to minimize use of cash as a prevention measure, the switch to use of M-pesa was instant, being a system that many in the country were already familiar with. This was further incentivized by removing the charges for any transactions below KSh 1,000/= (about US$ 10). **Many other countries similarly moved to mobile payments** in the face of the pandemic.

This **acceleration of mobile payments** can clearly be leveraged for countless applications within the healthcare system. Opportunities exist from **ring-fencing healthcare expenditure** **funds**, to providing **dedicated mobile wallets for heath**, to cashless payment vouchers e.g. for facility deliveries or newborn care, to **increasing transparency and accountability** on application of those funds by providing clear audit trails for healthcare expenditures whether at the individual or facility level.

**Digital patient records** – these have continued to be developed over time. An exciting development that we already have is **use of** **block chain** to ensure **continued ownership of digital patient records by the patients themselves**, with healthcare providers and facilities being allowed access as required, and adding on to this **so that the patients continue to have access to their full personal records**. If streamlined, this use of **digital inter-operable platforms** will provide **seamless engagement** and **digital mobility** **of patients** as they engage across different sections of the healthcare system – from consultation, to laboratory, imaging, drug treatment, different payer systems, insurance, etc. **The pandemic has provided an impetus and is having a catalytic effect around digitization that could potentially transform how we do business within the healthcare system going forward**.

**Artificial intelligence** – has continued to develop, and its deployment in healthcare is increasing.

As we look to the future, we foresee a situation where **disruptive technologies** that can support 24-hour **ambulatory patient monitoring**, **utilizing artificial intelligence** and **coupled with blockchain-supported digital patient records** can be used to **support patient care in the comfort of their homes**. With healthcare workers coming in as required when signaled on the need to do so. And the centralized records availing themselves for **ongoing research** and **evidence-based tweaking of the care** being provided.

There is therefore an opportunity here that **leveraging technology and building upon the homebased care concept** can **instantly avail additional healthcare provision space**, **vastly improving the capacity and cost-effectiveness of health care service provision**.

1. **Leadership** – as the pandemic has unfolded, we have **seen the impact that different types of leadership across the world** have had and the impact of this in different countries. From numbers of people of infected, to mortality rates, to impact on the economy. Inspired leadership that **listens to the science**, **takes the difficult decisions** and is **pragmatic about doing what is in the best interest of the people** will continue to be required.

And this brings in the question of

**Gender** and theneed for **inclusion of women in health leadership** which came to the fore during this COVID-19 pandemic. Women make up 70% of the global health workforce, but only 25% of leadership positions. This is a static that needs to change. It was encouraging to see the better results delivered by female-led countries compared to similar male-led countries.

**Diversity** allows for **a broader range of vital perspectives** to **guide decision-making**, often **delivering more favorable results**. It is my hope that we can see many more women being included in health leadership and indeed in other leadership roles across the African continent not just in addressing the ongoing COVID-19 pandemic but in rebuilding stronger healthcare systems thereafter.

1. **Subsidiarity** and **devolving** of healthcare planning and provision to local level.

**Conclusion**

In conclusion, while the COVID-19 pandemic has been as devastating as it has been, it also provides an opportunity to rebuild healthcare systems stronger and better. Let us not lose this opportunity to move ourselves to a better place for future generations.

If Africa is to build back better, there is need for intervention at Continental, Country, Facility and Community levels.

At **Continental and Country level** – we need **Political Will** and **Policy Reforms** that build on what is already there; we must negotiate globally, **provide the investments required**, and provide the roadmap to guide the ‘new public health order’ in which Africa ‘owns its own public health space’. Governments have a key role in providing the required leadership and in setting the tone here.

The challenges brought about by COVID-19 have re-emphasized the need for **Public Private Partnerships** to comprehensively meet healthcare needs.

There is need to **target our indigent populations** to **make sure that no one is left behind**. We must reinforce the importance of **empathy** for our fellow human beings, as this battle will only be won if all facets of society are part of that win.

The COVID-19 pandemic, challenging as it has been, has also helped restore faith in science and what the human race can do. With development of the vaccine and treatments in less than a year, it is clear that what we put our minds to, we can achieve. I therefore look forward to seeing an **HIV and malaria vaccine soon** and **therapeutics developed for neglected diseases**.

**Interventions** designed will need to be **cross-sectoral**, and will need to leverage on the emerging opportunities provided by **deployment of appropriate disruptive technology** to **support care** that **will increasingly be provided from a home and/or community setting**.

It is my hope that as Africans, w*e will own our space – Africans thinking for Africa and delivering for fellow Africans.*

I thank you for your attention.