



**+ BUILDING FROM THE ASHES OF THE  
PANDEMIC: SUSTAINING THE MOMENTUM  
TOWARDS PHARMACEUTICAL INNOVATION  
IN AFRICA**

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# ASHES OF THE COVID 19 PANDEMIC

GLOBAL SHORTAGES AND SITUATION  
IN AFRICA WHEN COVID-19 DEBUTED



# ASHES OF THE COVID 19 PANDEMIC

The World faced monumental shortages of medicines and particularly of medical supplies. This shortage occurred mostly in North America, Europe, Asia and Africa. Much of the shortage was primarily due to the lockdown of factories in India and China, the global epicenter of the COVID-19 health crisis. China had become the World's manufacturing site due to its competitiveness and without anticipating this kind of phenomenon, most Countries became over- dependent on China.



# ASHES OF THE COVID 19 PANDEMIC

However for many of the developed Countries, they had residual manufacturing capacity which they quickly activated to bridge the gap, yet shortages of PPE, Face masks and especially Ventilators persisted over a very long time even in the developed countries of America, Canada and UK. The US has ran out of hydroxychlorquine even for those who were on the drug for other ailments.



# ASHES OF THE COVID 19 PANDEMIC

In Nigeria as was typical of most African Countries , because of our over-dependence on importation, we were hit directly by the shut down in China and India. These Countries and others with export capacities focused primarily on their domestic needs. The local African Pharmaceutical Industry scrambled to meet needs of such basic things as Hand Sanitizers and hygiene products, with spiraling prices purely due to market responses. For items like Face masks, goggles, Professional protective equipment and Respirators, Africa Countries faced unprecedented challenges and had to wait for some relief through donations .



# IMMEDIATE RESPONSES BY AFRICAN NATIONS

First, was to find ways to ship in imports from wherever they could be found. Second, many Nations worked feverishly to dismantle all import delays to ensure goods in transit were cleared into the country for immediate distribution to alleviate the shortages especially of medical supplies where there was up to 90% import dependency.



# IMMEDIATE RESPONSES BY AFRICAN NATIONS

Second, Countries tried to accelerate importation of other needed medicines and medical supplies with maximum speed as the infection spread through the cities. But inherent and inbuilt bureaucracy was difficult to dismantle.



# IMMEDIATE RESPONSES BY AFRICAN NATIONS

Third, a couple of African Countries, Nigeria inclusive tried their best to deliberately expand local production capabilities for raw materials and pharmaceuticals and medical supplies. But little success was achieved, because building Pharmaceutical plants is not an overnight business. But within one year, Nigeria established a plant that could make face masks. It was a monumental achievement.





# IMMEDIATE RESPONSES BY AFRICAN NATIONS

Fourth, the Federal Government quickly mandated specific research efforts to produce local medicines that could be useful in this and future viral epidemics. For the first time, the Nigerian Institute for Pharmaceutical Research and Development (NIPRD) received attention and funding that it had not received since its establishment over two decades ago! Many pharmaceutical units in teaching hospitals sprang up to begin compounding and manufacturing of hand sanitizers and other hygiene products. Necessity became the mother of invention.



# IMMEDIATE RESPONSES BY AFRICAN NATIONS

Fifth, following strong advocacy by the Pharmaceutical Society of Nigeria ( PSN) which I led at that time and other stakeholders, the Central Bank of Nigeria ( CBN) Approved 100 BILLION NAIRA special Pharmaceutical/ healthcare fund to support local production capacity.



# IMMEDIATE RESPONSES BY AFRICAN NATIONS

It was the beginning of a long desired solution. We had repeatedly drawn attention to the need to provide a special funding for the Pharmaceutical sector to enable it expand capacity and capability to produce locally. We had also complained of the inability of the private sector to invest in research and development with short term funding from the commercial banks. So it was very reassuring that the CBN has come to the conclusion that there was no other way to go than to develop our local capabilities to produce locally- raw materials , finished pharmaceutical products and medical supplies( surgical equipment, and protective equipment).



# IMMEDIATE RESPONSES BY AFRICAN NATIONS

However 100 Billion Naira only could not do it. First, the delay in the approval and release of the funds( max of 2 billion Naira per company). second, the difficulty in obtaining foreign exchange by the Pharmaceutical companies to import the needed equipment or raw materials caused so much delay in utilizing the loan. Mean while the Naira continued on its downward slide so much so that by the time some Of the companies were able to get forex, the money had lost at least half of its value. Therefore as we speak the expected ramp up in the capacity and capabilities have not been significantly achieved. Nevertheless, a couple of the plants are near completion including API manufacturing plant.



# BUILDING FROM THE ASHES: SUSTAINING MOMENTUM OF INNOVATION

WHERE ARE THE GAPS IN  
LOCAL CAPACITY ?



# ***WHERE ARE THE GAPS IN LOCAL CAPACITY ?***

To determine the most appropriate intervention to sustain the momentum of innovation, we must first determine where the gaps exist in the Pharmaceutical supply chain. We have full capacity to meet certain categories of drugs like analgesics ( Paracetamol and aspirin), Nonsteroidal anti-inflammatory Drugs ( Piroxicam, ibuprofen, naproxen etc), Vitamins and minerals, Cough and cold preparations, infusions( dextrose, normal saline), Anthelmintics ( Pyrantrin, mebendazole, albendazole etc)



# **WHERE ARE THE GAPS IN LOCAL CAPACITY ?**

Antiseptic /disinfectants( NCP, Dettol, etc), Common Antibacterials & Antibiotics( Tetracycline, Ampicillin, Co-trimoxazole , ciprofloxacin, etc) several antifungals- oral and topical( Tioconazole, iconazole etc), some anti malarials and a few more generic products



# ***WHERE ARE THE GAPS IN LOCAL CAPACITY ?***

We have good capacity for anti-hypertensives and anti-diuretics (Amlodipine, Nifedepine, lysonipril, enalapril, prazosin/ hydrochlorothiazide, amilochloride/ hydrochlorothiazide, etc)

We have very limited existing capacity for Anti-retroviral, anti-cancer and more modern antibiotics and anti-diabetics . There is very little capacity for injectables and sterile products.





# ***WHERE ARE THE GAPS IN LOCAL CAPACITY ?***

We have virtually no existing capacity for surgicals and medical supplies .All most all of these are imported. Nearly 80% of raw materials and excipients are imported.

Local production of PPE's like Gloves, Face masks has improved recently

No ventilators and such other sophisticated medical equipment are produced locally yet.



# LESSONS LEARNT AND THE WAY FORWARD

The Experience Nigeria and some other African Countries got from the Ebola Epidemic of 2013-2016 which claimed over 11000 lives helped them to have residual level of preparedness that came handy in managing the spread of COVID-19 , helping to limit the mortality and mobility. Therefore the way forward is to sustain that level of preparedness. The African & National Centers for Disease control and the Primary Health management agencies need to be fully resourced on a continuous basis to ensure, they do not let their guards down.



# LESSONS LEARNT AND THE WAY FORWARD

The unbroken availability of basic drugs and medical consumables is a national security imperative. No longer must any Country franchise this to other nations, because when the chips are down, national survival takes pride of place. The Countries of Africa need to be intentional in motivating and supporting investment in critical pharmaceutical infrastructure and capacity that will bridge the huge gaps identified earlier. In this wise, such efforts as the 100 billion Pharmaceutical Fund introduced by CBN in 2020 need to be Sustained until the gaps are sufficiently bridged. And in doing so some of the shortfalls identified above must be averted. Going through commercial banks for onward lending must be avoided and direct allocation of foreign exchange must be in built in the disbursement plan



# LESSONS LEARNT AND THE WAY FORWARD

Related to the above, AFRICA needs to design special incentive schemes that prioritize and attract foreign investment in the Pharmaceutical and healthcare sectors. Suspension of certain bureaucratic bottlenecks that enabled fast delivery of vaccines and other medical consumables and speedy construction of a face mask manufacturing plant within one year during the COVID period need to be sustained. The National authorities must be conscious that epidemics do not give warnings and they must avoid being caught flatfooted when the next epidemic inevitably debuts sooner or later



# LESSONS LEARNT AND THE WAY FORWARD

Africa must do whatever is possible to improve its capacity to manufacture Vaccines and biologicals. This can be done through partnerships with multinational pharmaceutical companies with governments guarantee. Thank God for GAVI and the CACOVID initiatives that did its best to get vaccines shipped to Africa, otherwise African economies will have remained shut down for much longer and travel will have been restricted for much longer. The Economic impact of this kind of situation could have worsened the depression.



# LESSONS LEARNT AND THE WAY FORWARD

The renewed effort to support local research institutes like NIPRD must not wane. That level of support must be maintained for at least a decade to ensure that these institutes deliver on their mandates. Many Phytochemicals from plant and natural sources have been proven to be efficacious in limited investigations. These institutes must be supported to broaden the research and develop the actives into Pharmaceutical raw materials including herbal extractions and preparation. Africa's flora and fauna are rich sources of active medicines and with proper investment, some of the existing gaps can be closed or bridged at lower and affordable cost for Africa



# LESSONS LEARNT AND THE WAY FORWARD

One key area from which the momentum of innovation can be sustained is the growing support between Africa and the diaspora. The diaspora has helped to provide critical professional support (training, mentoring and gap bridging) and also financing for pharmaceutical manufacturing capacity. It was such diaspora intervention that helped in setting up some of the medical consumables plant in Nigeria during the COVID . Here NAPPSA for example presents a ready resource which Nigeria's counterpart professional organizations and the Nigerian healthcare authorities can exploit to help bridge the gaps faster and with greater ease.



# LESSONS LEARNT AND THE WAY FORWARD

## SYNERGY WITH OTHER HEALTH CARE PROFESSIONALS

Some of the lessons learnt during the COVID-19 season is that harmony among the healthcare professionals was not only critical in dealing with the pandemic but was truly possible. When many hospitals were shut down or reserved only for COVID patients, Pharmacies remained open to cater for the health needs of those non- covid patients. Without the services provided by the community Pharmacists, many patients on chronic indications like hypertension and diabetes would have had big issues.





# LESSONS LEARNT AND THE WAY FORWARD

The professional associations in Nigeria especially PSN, NMA , the NANM( Nurses& Midwives) and the Lab scientists closed ranks as everybody wore similar protective clothes and not only was it difficult to distinguish who was who but the healthcare professionals were not only United in keeping the patients alive but also in avoiding getting infected. It is highly recommended that our professional diaspora organizations like NAPPSA and their medical counterpart must help in moderating the unnecessary rivalry between their counterpart professional groups in Nigeria. This is a very critical need.



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# UP-GRADING AND MODERNIZING REGULATORY AGENCIES

During the COVID season, Nigeria's regulatory agencies were slow in responding to the needs of the Pharmaceutical industry. The urgency required to get emergency approvals for bringing required medicines and medical devices was lacking. There was hesitancy to give waivers and make exceptions. Requirements for clinical evaluation even with natural or plant based formulations proved prohibitive. Though this improved later in the season, much time and opportunity was lost in the early months. There was an initiative in which Some Nigerian based professionals in collaboration with some diaspora based professionals proposed to do a clinical evaluation of a formulation with an extract from the Neem tree in managing COVID -19.



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# UP-GRADING AND MODERNIZING REGULATORY AGENCIES

The bureaucracy and cost advised by the regulatory agency aborted the effort. Therefore African regulatory agencies must acquire the competences and capabilities to respond to epidemic emergencies as was fully in display by the American and European regulatory agencies that facilitated the speedy approval of vaccines and medicines that were repurposed or produced with novel protocols like the mRNA .



# CONCLUSION

Africa, like the rest of the World faced circumstances they had not seen since the Bubonic Plaque crisis in the 14th Century (1346- 1353) which claimed over 50 million lives especially in Europe. No nation was spared with COVID-19. 767 million people were affected in the World with over 7 million deaths. Borders were shut. International trade ceased. Local and international travels came to a virtual halt. Lives were lost, economies went into depression and the World was forced to change paradigm. Though Africa, did not suffer the kind of mortalities projected because of several factors( many of which were natural or God given), its economies faced stiff challenges and many are yet to fully recover



# CONCLUSION

Africa had about 257, 000 deaths with South Africa contributing about 40%. Nigeria had just 1.3% mortality rate - 3156 out of 265105 confirmed infections. But the economic impact and sufferings of people with other illness was disproportionate. Africa ought to have learnt its lessons. The continent was forced to look inwards, to reduce bureaucracy, to promote innovation through partnerships and other avenues. It is therefore helpful to seek ways to sustain the innovative approaches started during the period and preferably to accelerate efforts to ensure Africa is not left behind again when the next epidemic debuts. The lessons learnt and the suggestions made above should be helpful in this pursuit. I believe this is a major contribution by NAPPSA for creating this opportunity to think back and think forward.



Thank you for  
your attention  
and God bless.

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