NIGERIA GLOBAL HEALTH TRIALS CONFERENCE
Sickle Cell Centre, Idia-Araba, Lagos
30th and 31st of January, 2018

REPORT
The Nigerian Global Health Trial Conference 2018 took place on the 30th and 31st of January 2018 the Sickle Cell Centre, Ibi-Araba, Lagos. There were over 350 participants registered for the conference. The sessions included a keynote address, seven plenary sessions and nine lunch break sessions. There were over 25 national and international speakers and facilitators. Topics discussed cut across multiple global health issues ranging from infectious diseases, communicable and non-communicable diseases, education and scientific communication. The lunch break session discussed issues ranging from standard of care for research, use of IT for effective research communication; ongoing HIV cure research, inclusivity, diversity and equality in medical education; and conduct of research in primary health care settings.
KEYNOTE ADDRESS:
Global Health: implications for advancing health research and practice in Nigeria

The session was chaired by Professor MC Azuzu. The keynote address was delivered by Akin Abayomi, Nigerian globally-respected Professor of Medicine with subspecialization in environmental health and pathology.

In his presentation, he defined global health as a study, research, and practice that places a priority on improving and achieving equity in health for all people across the globe which involves multiple disciplines. He also defined health, and noted that harmony required that everyone lives collectively with each other for the benefit of humanity, posterity and the global good.

His lecture drew participants' attention to the reasons for the current global imbalance and the challenges faced by low-middle income countries like Nigeria including low government expenditure on science and technology, dependence on foreign grants and aid with its antecedent problems. His review of the history showed how slave trade was associated chaos, arrested renaissance, stunted growth and elimination of resilience. He noted that colonization of the continent led to huge extractions of wealth from Africa, the enrichment of Europe, and has structures left behind has
continued to enable Europe growing extremely wealthy at the expense of Africa's socio-economic development.

He went on to seven biological catastrophes that had happened on the continent namely: the HIV pandemic that emerged in the Belgian Congo (the Democratic Republic of Congo); crude oil and carbon pollution of the rivers and soil; power shortage, illegal diesel and unregulated vehicle emission resulting in unacceptable air pollution; disruption of ecosystem balance and increased human encroachment; lack of clean water and desertification; megacity bio-security threats coupled with mental stress bordering on insanity; and sewage contamination of wells and boreholes. He encouraged participants to prevent a new catastrophe that can result from poor knowledge and skills growth and development.

He concluded by acknowledging that a lot of positive activities are going on in Africa focused on building the bio-economy. However, corruption can stunt this growth and so will the persistent system of exploitation. Scientists need to move out of the corridors of the clinics and position themselves where we can make a difference. He encouraged health practitioners to begin to embark on a new form of research that is multi-disciplinary in nature and one that truly helps change the paradigm of governance in Africa.

DISCUSSION

**Question:** The lecture inspired me to look for strategies to fight all these problems confronting us as a country. With the deprivation we are facing here in Africa in terms of research resources and funding of research, what do we do in this situation?

**Response:** Where there is a lack of government research funding, we have to push our philanthropists. One of the biggest funders of research worldwide is Bill Gates. We have a large number of billionaires in Africa. We need to get together as scientists and teach them that even in America, its not only the government that provides money for research. However, that does not take away the responsibility of the government. We need to get together as members as the health community and collectively resist what the current status is, then we might get some change. We have to force the government to act if they want to have a result as you cannot expect miracles where there are no resources.

**Question:** In the whole plan, where is the place for developing future children?

**Response:** I agree with you about the importance of our next generation, but I can assure you that if we do not put our focus on our politicians, the next generation don't have a chance. We need to do research on policy and high-level advocacy. We would
be forever struggling at the grassroot level if we do not change policy and governance. While we are looking after the next generation, the lowest hanging fruit is to change the politicians by collectively advocating, agitating and bargaining.

**Question:** How do we prepare the patient mentally and psychologically before breaking the news of a positive status?

**Response:** This calls for another opportunity for research. How do we address the psychosocial aspects of pathology? It’s not just about giving tablets and chemotherapy.
The session started by 11:35am. It was moderated by Dr. Morenike Folayan. The plenary speaker was Professor Folasade Ogunsola, Deputy Vice Chancellor of the University of Lagos.

She defined global health research as an area for study, research, and practice that places a priority on improving health and achieving equity in health for all people worldwide. Global health is collaborative, cross national, research oriented and encompassing health for all. She explained that Global health differs from international health in the sense that it is bi-directional i.e. there are contextual, cultural and low-cost issues that we could also share such that those from high income countries can learn from us.

She highlighted that research capacity in the South remains one of the world's unmet challenges. Some of this low output can be due to individual issues such as inadequate research training, inadequate mentorship, no protected time, high workload, inadequate expertise in preparing manuscripts for publication, poor alignment of research with national needs, and inequitable access to scientific and technical
information. At the institutional level, factors that contributes to low output includes poor infrastructure, laboratories, inadequate research infrastructure, heavy emphasis on teaching and administrative work, data management infrastructure and energy issues.

She highlighted that while North-South collaborations bring with it some expertise, partners also need to be prepared to harness those opportunities the collaboration provides. One of such benefits is the potential for funding coming from the North and increased access to good publication and other resources. These all have the potential to make positive impact on the health of a nation. However, the power imbalance in terms North–South collaboration could lead to conduct of extractive research, no capacity built, and health agenda of local partners not being addressed.

North-South collaborations need to be maintained for the long-term to be able to facilitate more equity while building capacity for infrastructural research. Such long-term collaboration should foster intra- and extra-mural collaborations, mentorship and skills. 'Money should not be the driving force in research. Making new relationship, networks and institutional visibility and prestige are some of the advantages that comes with maintaining such relationships. When trust is established in your institutional ability to manage funds, then it is easier for more funds to come' she said. In her parting thoughts, she reiterated that a well-managed North-South collaborationis extremely beneficial in reducing the knowledge skills gap.

**DISCUSSANTS PERSPECTIVES**

**Dr. Adebiyi Pelumi**
One thing that really struck me and where I think we need to pay more attention to in the presentation is infrastructural needs. You need to build your institution before you start talking about collaborative research. The institution gives you a framework for you to think about what needs to be done and how to transfer knowledge.

**Prof. MC Asuzu**
Building institutions is very important. If you are a successful person in a small institution, you are a monster. But if you build up an institution, no matter how small, you are a big person and people will listen you when you talk.

**Dr. Akinmayowa Akin-Otiko**
One aspect I would like us to really keep in mind is the bi-dimensional aspect. We keep running up to them and the truth is we cannot be as good as they are as they would not let that happen. One way to excel is to look at our own stuff in terms of African traditional medicine. There is so much to be done in this field. From experience, I know that those that do not prescribe it even use them and until we begin to look at it in
a different way, such that the messaging can change from either Western or orthodox medicine. There should be a blend between both. Until we get to the level of collaboration, it would be difficult to achieve global health.

Prof. Folashade Ogunsola
We wouldn't get far with the way we are going now where everything is coming from the government. We are never going to have enough resources. Until we start doing good research and work that has impact, we are not going to be relevant, or make any other streams of income. As academic staff, we need to focus on why we are here to do more work and solve the problems of Nigeria such that whatever is coming from outside becomes an add up and not that we are just chasing anybody. When we don't have focus, there would always be inequity and we will not move forward.

DISCUSSION

Question: Prof. Ogunsola said Nigeria is a virgin land for research. Is there something that we as a country have to sell? Is there a way we come to the realization that we truly have something to sell and, in that process, also gain from that selling point even in the world of research?

Response (Dr. Adebiyi): You need to go to the negotiating table with your strengths, most times we go to the negotiating table with our weaknesses. Its only a mad man that would give someone his money with no hopes of return on investment. We need to have a national agenda to critically evaluate the questions that we want to have answered. We need to question the question. We need to really think about our objectives and motivation for doing research and begin to systematically position ourselves to have an interest-based negotiation.

Question: I became really interested when you spoke about setting local rules of engagement. I realise that a lot of research as far as local engagement rules are concerned is by the researchers. Does the College of Medicine, University of Lagos have guidelines or rules on local engagement and if yes, what are the elements that have made it successful?

Response (Prof. Ogunsola): Setting local rules of engagement can be at various levels, we cannot take away the individual researcher's semi autonomy because the whole idea of being in this system is to give you head to run with your thoughts. However, we can have within our institution, things that cannot be done, for example, if you have a strong HREC, when the proposal comes, it is going to go through it and ensure that it conforms and that there is nothing there that is exploitative. If you have a good research management office, it is going to ensure that funds are managed properly.
**Contribution (Participant):** With regards to funding, we need to think of something. Most of the funders we have support mainly communicable diseases, who is funding cancer and other NCDs. We need to look inwards as we engage our private business moguls that have the money and are willing to sponsor research. As an entrepreneur, when you want to do business, you look for the needs and fill the gap. Likewise, in research, you have to also look for a need and block the gap when this approach is followed, natural, your research outcome would ring a bell and be impactful. We also need to learn to patent our researches. Health is part of development finance and the only way we can stop the excess foreign exchange going on in the health sector is by building our own systems.

**Question:** Do all these research result go back to the grassroot and if yes, how do grassroots benefit from these results are the benefits really visible?

**Contribution (Prof. Okpani):** The younger people think it is all about promotion but when you are now promoted, you get to that level of incompetence. Secondly, it is not correct as a lecturer to give your protégé a research project to do because you want to publish. With regards to the issue of research application, when you do a research, it may qualify as a preliminary study because of your collection of subjects which means that you have to validate it with a larger study. Not all researches can be applied at grassroot.

**Question:** I am from a secondary tertiary institution and I can see a lot of professors from tertiary institution here today. We seem to have neglected the in-house collaboration between the teaching hospitals and our secondary institutions which is closer to the community than the teaching hospital and where the bulk of our patients are treated. As we develop capacity in our universities, we should endeavor to extend that capacity development to our secondary institution.

**Question:** I know there was a step towards integration and teaching trado-medicine in universities. Where exactly are we as far as trado-medicine is concerned?

**Question:** Building local capacity starts from the bottom. It is very sad that when you graduate from the department of cell biology and genetics and you don't even know what your micro pipet is. There is nothing happening for students. If you take some statistics of people that graduated from my set, most of them are outside the field. We have many Professors and Doctors here but where are the students, I think that is where the gap is coming from.

**Response (Dr. Adebiyi):** To be an established researcher, you need to have the mentality right from student days. It is all about seeing the possibilities and not he problems. The problems are what is going to make us innovate and that is what is
missing in our narratives.

**Response (Prof. Ogunsola):** For us as Nigerians, we must change the narrative. There is so much good going on, but we are like the proverbial people who see a black dot and focus on it and ignore the rest of the white. We have been in a bad place with research. When we say there is poor funding, it translates to difficulty in the research agenda and lack of equipment, then to add on to that, we are not talking to each other even within the institution. We are so focused on politics rather than the problems of the country. We have to stop assuming that someone is going to come and do it for us and recognize that in a low and middle-income country like ours, it means you are going to get up and look for what you want and search for the people you want. In terms of tertiary and secondary collaboration, there is actually collaboration but you can't go to people you don't know. We need more platforms where we can come together and discuss. When we have conferences, we attend and start to network. We must make networking something we do deliberately as this is very critical. I hope that by the time we all leave tomorrow, you know someone from another institution in another field. For trado medicine, I believe we have a goldmine there and there is a lot of work needed to be done in that space. I think the challenge for trado-medicine to work with clinical medicine is to show the science. More importantly, there is hope in Nigeria, things are better no than they were some years ago.

**Response (Dr. Akinmayowa):** We have a knowledge base that there is trado-medicine, but we do not yet have the courage to hit the ground and run with it. We haven't reached the level where we as orthodox medical practitioners can begin to get involved and ask the right questions. We are about 170 million people in Nigeria and how many people come to the hospitals? If those that come to the hospitals are the only people that are ill in the country, then we are healthy people. The truth is that they go to all these other places and they get well there. We trained are the ones to ask these questions such as, where did you get it? Has it worked? What are the side effects? We also must build trust in order to get honest responses.

**Response (Prof. Asuzu):** You are worth you network. If you don't create network, you are like a yoyo going out of extinction. If you go out of here without establishing new networks, you did not come here. 35% of cancer patients seek trado-medicine before coming to the hospitals or simultaneously because they work. Traditional medicine is now in the curriculum being pushed by the Medical and Dental council and NUC. In addition, networks should include people in the secondary and primary healthcare system to make sense in laboratory and clinical medicine. We need to learn to work together as a team. If you are in a research team and you contribute thoughts and physical work to a research, your position in the authors will be determined and in the long run, you would have enough papers to go anywhere.
LUNCH BREAK-OUT SESSIONS
Day 1 of the conference. The Pictures below speaks.
The Global Health Trials Network

The lunch was served while participants attended various breakout sessions. There were five breakout sessions on the

- Standard of care for Research Conduct
- Inclusivity, diversity and equity in Global Health
- Primary care clinical research
- Effective research communication

The Global Health Trials Network
PLENARY 2
Health research and global health research: Potentials and Promises of South-South Collaboration

The session started by 2pm and was facilitated by the Executive Director of Journalist Against AIDS (JAAIDS), Ms. Olayide Akanni. The plenary speaker was the Director General of Nigerian Institute of Medical Research (NIMR), Professor Babatunde Salako.

In his presentation, he highlighted that global health goes beyond the health of the population. The issues addressed through Global Health transcend national borders with global political and economic impact. He differentiated between international health and global health noting that international health is the branch of public health focusing on developing nations and foreign aid efforts by industrialized countries.

Global health is driven by global health focused research. This involves collaborative efforts in an area of study, or medicine and practice that places a priority on improving health and achieving equity in health for all people worldwide. It reduces health disparities, and protects against global threats that transcend national borders by collecting health metrics essential for public health action, policy making, planning and programming. Research is needed to uncover best practices, eliminate barriers to
care and measure impact. In effect, global health researchers need to engage policy makers, civil society, and the media to generate the needed action for change. Sadly, the current measure of global health research by number of publications per million population (PPMP) showed that between 1990 to 2000, the total number of publications for Africa went down from 1.2% to 0.8%. Also, most of the funding for African countries are from external sources. The government needs to invest at least 1% of the GDP into research as recommended by the African Union to help address this disparity.

He highlighted that South-South collaborations between developing countries has been on the development agenda since the mid 1950s. Sadly, this form of collaboration is limited though slowly increasing. Since research expertise/excellence of developing nations are largely invisible and insignificant within the context of globalization, he advised that combined effort and strategic blending of the best of Southern research could increase the international visibility of science produced by developing regions. Specifically, Pooling of research resources would bring developing countries closer to meeting the critical minimum of investment required, minimizes duplication of efforts. South–South research collaboration could slow the current efflux of talented scientists and researchers from the South to the North, and transform it into increased South-to-South circulation. South–South collaborations could be promoted through inter-faculty/inter-institutional collaborations, training, networking (conferences), mentorship, training in new technologies, acquiring new skills, and revising curricula/teaching methods at all levels to promote this agenda.

South- South collaborations come with its challenges. Working with scientists with similar institutional backgrounds may deprive collaborating scientists of opportunities to learn from international best practices and professional norms, this serves as a potential obstacle of South-South collaboration. One major hurdle is availability of funding that often drives research agendas. While is also important to identify appropriate partners in other developing countries and to initiate the collaboration, this may be a challenge as finding enough detailed information about potential partners is a difficult task. Finally, a primary motivation for developing-country scientists engaging in North–South collaboration is the opportunity to work alongside colleagues from the developed world. They can gain knowledge, learn international best practice and improve their chances of getting published in high-quality journals. Working with other scientists of the same level of international standing may not generate this motivation. Despite these challenges, South–South research collaboration needs to be encouraged and promoted by the global scientific community and by policymakers.
DISCUSSION

Question (Olayide Akanni): What is your personal experience with South-South collaboration, how has it worked?

Response (Dr. ElimaJedy-Agba): Apart from the fact that we have very limited funding for research, majority of the problems that face low and middle-income countries pertain to our environment where there is no funding. In the previous session, someone also talked about the fact that a lot of funding goes towards diseases that are communicable and not NDCs. My area of specialization is cancer and I have done a lot of collaborations in that field. In that area, you will find that there is limited capacity to have a proper South-South collaboration as you would have with the North. However, things are changing. We are beginning to leverage on North-South collaborations to develop our South-South collaborations. At IHVN, we have tried to leverage on our previous North-South collaboration. Over the years with lots of funding from PEPFAR, IHVN has been able to set up a very robust laboratory infrastructure, so we have a lab that can do genomic analysis and molecular biology. Now we are beginning to work with other organisations within the country to ensure we can transfer some of what we have gained. In terms of training, we have done quite a lot where recently we have invited participants from NIMR and NACA to train them on how to write grants. There is a lot of potential in South-South collaboration if we all work together.

Response (Dr. Gbenga Ogunfowokan): There is a great gap in South-South collaboration. We need to stop the talk and start the action and that is the main reason for this conference for me. At the GHTN, we believe we need to strengthen South-South collaboration, hence we formed regional faculties which have areas and gaps that they need to fill in their region. There are lots of things being done in silos in these various regions. The regional faculties aim to bring them together under one platform to exchange knowledge, skills and to transfer experience. However, for S-S collaboration to succeed, we still need a lot of funding so we need to begin to get involved in as this becomes very advocacy becomes important. There is a need to bring the private sector on board, there should be a bilateral collaboration between institutions and the private sector such that the researches done in institutions are funded by the private sectors.

Question (Olayide Akanni): You highlighted a very important point in your presentation where you talked about the spread of research and what is happening in West Africa. How do we deal with the issues of language barrier in this region giving that trust might become a challenge?

Response (Prof. Salako): Looking at the West African region in the last 2 years, quite
a number of consortium has been formed that involves both English and French speaking parts of West Africa. There are also opportunities to get an interpreter, so that should not be the major reason why we are not that visible. I think there is no political commitment form our government and I believe that corruption is one major hurdle. The government needs to do the minimum of ensuring that research is funded in the universities, without which, they would be mortgaging the future of our country and we would be left behind. We must also look beyond the government and start to engage the private sector.

Comment: The lecture highlighted that we are 0.7% in terms of contribution to research globally but I think we may have done more because a lot of your research did not get published. I think the charge here is to make ourselves visible. How do I know someone somewhere is doing something in my area of interest if they don't publish? Some local study never gets on board because there is no money to publish. Some publications in certain journals runs into over a million naira. If the researcher cannot afford this, his research would be buried on the bench for several decades. We should begin to advocate for a National website for researchers in the country where they can share their work.

Question: From my perspective, I believe NIMR stands at the apex of administration and organized research in Nigeria but the FMOH structure does not say so and we are being told from time to time to register in NREC. My institution has been handling about 400-500 health related proposals yearly. Why do we have to register when we are already part of the process?

Question: Does NIMR have programs for South-South collaborations particularly within the context of Nigeria that we can buy into?

Response (Prof. Salako): Ideally, NIMR should be the apex of research administration in Nigeria. However it is not well empowered politically and financially to do so. The institute is seen as one of the agencies of the government under the Ministry of Health, this exposes it to political maneuvers which creates a bottle neck for it to grow. We are trying to make NIMR more relevant than ever before. Getting the ministry to understand that NIMR is not an agency that runs in the ministry way means that we would have to reposition ourselves. As to whether you can get to buy into how your organization can move on with your research in NIMR, this is certainly possible. Of late, we have been contacting universities and some local organizations to extend the network of NIMR and the relationship between NIMR the Ministry and the Universities. Lastly, your IRB cannot exist in isolation. It must have its apron spring tied to the National Health research ethics committee. You need to settle with them and register with them because there are some opportunities you might loose if you are not in good standing with the NHREC.
Comment: For effective collaboration, inter-professional rivalry remains one of the challenges we have to deal with in order to move forward in research. We need to see beyond research being something that should be done within only one profession. There are some groups in my area in which we have come together to form our own research team based on interest and friendship. We come together often, conceive some research topics, deliberate on it and share responsibilities after which we send the proposal to the HREC for review and approval and we have been able to publish some in reputable journals.

Comment: From my point of view, many people gathered here have interest in research. The major problem however is the issue of infrastructural decay. Accessing the latest equipment for your research becomes a challenge. We need to advocate for increased political will to invest in infrastructure.

Question (Olayide): You've talked a lot about the Centre of Excellence in Abuja and the capacity to do Genomics and a whole lot. How is that going to be decentralized. What is the plan to ensure that somewhere in Ekiti State, I can do that same quality research without having to move samples to Abuja?

Response (Dr. Agba): In terms of collaborations within Nigeria, you can write to the International Research Centre of Excellence in the Institute of Human Virology if you have a particular research proposal or project that you want to work on. We have a lot of researchers that work in different areas, if this is in line with one of the areas where we have people working in, you would be assigned a mentor in that area who will work with you to develop your research project so it would be a collaborative project.

Question (Olayide): One of the problems we face is the issue of knowledge sharing. What are the plans that the network has to disseminate this information and ensure that we don't only have to wait for a forum like this to gather information?

Response (Dr. Ogunfowokan): It is a Global Network that has regional presence and owned by the local faculties. Here, the South decide what they want to do for themselves and asking the North to support them instead of the North calling the shots. This workshop is a typical example, it was an innovation of the Nigerian faculty. Please visit www.globalhealthtrial.com for more information about GHTN and opportunities for collaboration.

Response (Prof. Salako): The days we work in silos are long gone. We have to work with others and encourage data sharing. Where your ideas end, another person may have a new one that is why you need to talk to other about your ideas so they can modify it and bring something very useful out of it. These days, it is not about the profession but about the expertise the individual constituents of the multi-disciplinary unit are bringing. Hence, respect of the expertise each individual brings to the table is becoming very critical.
PLENARY 3
Global health and the challenges of non-communicable diseases research and management

This session was moderated by Dr. Morenike Folayan, Coordinator of New HIV Vaccine and Microbicide Advocacy Society. The plenary speaker was Professor Akin Osibogun, former CMD of the Lagos University Teaching Hospital.

Non communicable diseases (NCD) are chronic diseases associated with multiple etiological factors. However, the boundary between NCDs and communicable diseases has become blurred as cancer of the cervix and some oro-pharyngeal cancers associated with the Human Papilloma Virus. The four main types of NCDs of global importance are cardiovascular diseases (like heart attacks and stroke), cancers, chronic respiratory diseases (such as chronic obstructed pulmonary disease and asthma) and diabetes. While infectious diseases continue to play an important role in developing countries, there is an undue mortality due to NCDs in developing countries because 80% of NCD deaths occur in low and middle-income countries. NCD deaths are projected to increase by 15% between 2010 and 2020 to about 44 million deaths globally. Non communicable diseases play a significant role in the global burden of diseases.
In Africa, there are still more deaths from communicable diseases than from non-communicable diseases. The prevalence of NCDs is however rising rapidly. Survey of NCDs in Nigeria in 1992 reported a prevalence of about 10% for elevated blood pressure among Nigerians aged 18 – 65 years. Another survey carried out in 2003 under the auspices of the WHO and the Nigerian Heart Foundation reported a prevalence of 28%. Currently reported prevalence of hypertension in Nigeria in various studies is in the region of 30-35%.

Tobacco use accounts for 30% of cancers globally. Almost 6 million people die from tobacco use each year, both from direct tobacco use and second-hand smoke. By 2020, this number will increase to 7.5 million, accounting for 10% of all deaths.

Prof. Osibogun highlighted a couple of factors that poses as a challenge for research, some of which include, funding, research skill, and use of research findings. Some 60% of health research in Nigeria are conducted by researchers in the Universities and
University Teaching Hospitals. The role of ethics review and approval of these research proposal cannot be overemphasized as they need to demonstrate how it will expand the frontiers of knowledge.

DISCUSSION

Comment (Dr. Onigbogi): What I have always advocated is for us to begin to change our National thinking. There are lots of cancer centres funded by the church in the USA. We have big churches here in Nigeria. Our religious institutions have to begin to get more involved. Our churches, mosque, religious leaders, community leaders and billionaires should get more involved with research and NCDs, otherwise, in the next few years, we would have a problem that we just can't cope with.

Comment (Dr. Folayan): As long as we keep quiet, things will never change. The only way we can make change for ourselves is to stand up and be part of leadership. We also need to make a difference with something you have learned here today and thinking differently. Beyond this, we need to start making the right noises in the right place at the right time including voting for the right leaders. Hopefully in 10 years time we would be here and singing a completely different tune.

Comment: The problem is that we don't see the bigger picture. We don't see a situation where we need to move forward because of years of neglect. The government cannot do everything. The private sector and NGOs needs to be empowered for us to move forward. The way forward is to call on those who are empowered to move the private sector forward

Comment: We don't have the skills and commitment for advocacy and we all need to develop ourselves in that capacity to be able to push for what we want. I believe that the church in this country has contributed very immensely to the growth of Nigeria and they should be commended. Many of us here are members of churches and I would like to encourage us to inspire our churches and other religious houses to think on that wise. I am sure that if we can sell them a good vision, many of those institutions will be willing to support health care in Nigeria

Comment: We need a merger as it is not just about the health professionals alone. I would recommend that in subsequent conferences like this, we should invite government representatives and policy makers. It is also important that medical students should be invited for conferences like this in order to spur them at a young age so they understand the importance of research. We also need the religious leaders present in such meetings.
DAY TWO
The meeting started by 9:00am with a recap where participants shared key lessons from the previous day. Some of the lessons learnt were:

- South-south collaboration is a doable thing and it is workable. We need to take a multi-disciplinary approach to actually get the best quality of research so we can publish within and outside the country.

- We should stop talking and start to take more action. Also leaned that change starts from us, we should not be solely reliant on the North to develop our health sector in Nigeria.

- Neo-colonialism is one of the things that we must try our best to nip in the bud. We must be partakers and look inwardly.

- I was equally appalled and inspired. Appalled in the sense that I saw, for the first time, how the slave trade actually retarded our knowledge acquisition. At the same time, I was inspired that there is a hope that we can rise up at the moment and do something different. Also learned that we would stop working in silos to create opportunity for collaboration and learning.
PLENARY 4
Advancing education and training in Global Health in Nigeria

This session started by 9:15am and was moderated by Professor Antony Okpani from the University of Port-Harcourt. The speaker was Dr. Pelumi Adebiyi, Coordinator of the College of Medicine Research and Innovation Management, University of Ibadan.

The speaker started his session by asking participants two questions to think about
- What exactly would be the value of disruption?
- Would you consider incremental changes as very useful?

With redrags to the popular saying “think outside the box”, Dr. Adebiyi established that thinking laterally starts with thinking deeply, hence most often thinks deep within the box. Global health education faces a multidimensional understanding and perception among providers, users, and stakeholders and it embraces diversity. It emphasises transnational health issues, determinants and solutions; involves many disciplines within and beyond the health sciences and promotes inter-disciplinary collaboration.

Global health is not restricted by geography because within countries you can find
disparities that can make one part of the country look like an entirely different country. Global health should embrace regional difference, in-country differences and equity. In addition, Global Health should be embraced with an asset-based approach. We need to look at structures and community-based assets in-country in which we can tap into. Even poor countries have things to contribute to global health, hence we all can go to the negotiation table from a position of strength. Innovation is also a critical part of Global health and for this to occur, there must be good research going on. DISRUPTGlobal health tries to unwrap the knowledge package which would involve; new ways of thinking. With new ways of thinking comes new ways of teaching, this removes the strain from the teacher to enhance co-learning. We also need to begin to interrogate our facts by questioning the question which brings about a disruptive pathway. Disruption is important for global health and innovation to occur. Only then would we start to see creative outcomes.

Effective global health training bridges the inequity gaps in health and knowledge while enabling researchers understand the cultural perceptions of disease and health care. It also enhances the collection of health information. Economic development, environmental sustainability and social inclusion are critical indicators of effective global health training. Global Health must be at the cutting edge of science and Nigeria needs to key into this so we won't be left behind.

DISCUSSION

Prof. Onoyade: I have interacted with many students and one of the challenges I find
with them is that they are not capable of independent learning because they are not willing to search for new information despite its availability. If we are going to contribute to global health, we need to constantly search for information ourselves. I keep telling my students that the days are past where you learn passively. Unless and until we are able to groom our students to be able to learn independently and question the teacher, we probably will not be able to catch up with global health. The questioning should begin from the primary school level where teachers give their pupils assignments to find out about something, by the time they come back to the teacher, they would have different perspective to the issue and the teacher can also learn from them by so doing. Learning is 3 dimensional i.e up-down, across and down-up, but the latter is very weak in Nigeria because our students are sometimes lazy. I know what I know, but I don't know what you know and I am interested in what you know.

In terms of collaboration, that is another area where we are weak, particularly in our university system because we have built walls around ourselves. We will not be able to solve many problems when we maintain a mindset that makes us think we are an empire on our own. You can't solve the same problem doing things the usual way, one must become very innovative. We also need to have more mentors than supervisors. A supervisor just looks for your mistakes and faults but never guides you. A mentor on the other hand will guide you and show you opportunities that would foster your development.

Mrs. Nonye Umayi: We cannot go far without education as we are now in a knowledge-based era. There is a huge knowledge gap, there are lots of health practitioners that can do research here in Nigeria but they just don't know how to go about it. There are lots of grant on the web and we are not applying for them, sometimes when we apply we don't get them because there are technical terms one has to use to prove to the funder that you know what you are asking for. Knowing just the science and the medicine is not enough. In addition, the crop of graduates we are having now needs to work harder. Students should take advantage of their smart phones to access useful information. For those of us that have some level of experience, what we learned in those days is not what is obtainable now, hence the need for continuous medical education.

Dr. Adebiyi: I have a very good teacher who teaches me a lot of things and that is my son. One thing I have come to realize about this present generation is that they are exceptionally brilliant people, however, they have a self-destruct tendency which we need to identify how to manage. Once we have a program that can do this, we would find out that the students will do well. As teachers, we must accept the challenge from our students before the innovation starts.

Discussion
Comment: As a medical student, I thought I was very intelligent while in school but this was not the case after graduation. This is because the medical school did not give me the chance to think independently. We see situation where the professor will come, bully students and terrorize students which can be demoralizing and you can really learn in that situation. As teachers, we must take our students as partners and give them a chance to contribute to the process of learning.

Comment: Medical training is unique and a bit restrictive. It does not give opportunity to play with ideas because of its peculiarity. Secondly, it would be great for universities and institutions to work with people who are in the field as lecturers. If we allow ourselves to have people who are outside core academics to be part of the academic system, it would help to make our research and teaching relevant.

Question: From slide 21 of your presentation, what were the other variables that were controlled for in that relationship?

Question: One of the reasons why I joined Global Health is because I want to be trained to be able to go into the field of medical research. I am happy that Dr. Adebiyi said they have started a Masters in Global Health program at the University of Ibadan and I am much interested in enrolling. How do we get in and what are the logistics involved? How do I also become a GHT fellow?

Question: How does the MSc. Global health program in UI, encourage interdisciplinary studies. i.e. can a sociology graduate easily get admitted into the program?

Comment: There needs to be a synergy between the academia and the industry. I also want to challenge the Prof. by saying in this era, it is THINK WITHOUT THE BOX. I also want to appeal that today's teachers should see themselves as mentors.
Comment: In relating with some senior colleagues in the field, I discovered that I had missed a lot of opportunities as a student probably because I did not have a mentor. It is not just about reforming but transforming education. Education should be holistic and not one sided.

Response (Dr. Adebiyi): At the University of Ibadan, we have teachers from FMOH, FHI and APIN who are associate lecturers with us. We also have lecturers from outside the country. If you have a skill that we would be beneficial to our students, please feel free to get in touch with me. The Masters level is where the real learning really starts and we want our students to have a broad perspective on many kinds of issues. Also, public health is an enterprise and not a distinct specialty, you come to public health with your skills and competences. If you have something of value that you are bringing on board, why not? In Ibadan, we take people from the social
Response (Prof. Onoyade): I appeal to teachers to stop bullying students. I do not think any discipline is restrictive. It is true that the breast as not migrated from its original position, but we are learning more now even about the breast tissue and some of its diseases. A lot of information are coming up and we need to access them.

Response (Mrs. Nonye): I agree that people from the field should teach because they would add flesh to what is being taught. We should follow the footstep of this South-West in this regard where King Sunny Ade and Nike are lecturers in Music and Fine Art departments respectively. This would enable the students see the practical side to the theory they are learning in school. Secondly, holistic education is the way to go. When you give a child holistic education, as he grows up, he can now find where to fit in and other things he can do.

Question: What are you doing at the level of the elders to ensure that the younger ones coming after you would have a firm grip of the professional system of this country?

Response (Prof. Onoyade): As teachers of Medicine, we are faced with a dilemma; one, we want to train medical graduates who can work anywhere in the world, the second thing is that we need to train people who are relevant to our needs. Therefore, you find that in the medical curriculum we teach things that may not be applicable to us now. We should design our curriculum in such a way that when these medical students graduate, they can respond to the local need of individuals they are committed to serve.

Final comment (Mrs. Nonye): Most of us in the health sector don't know that we have funds we can access with the Central Bank and the Bank of Industries. The health sector is capital intensive. You can approach these institutions, go through the requirements and get access to funds that you can set up with, hence we see whether we can reduce the cases of medical tourism.

Question (Prof. Toni Okpani): What are the prospects for introducing internship in Global Health for our students and would it be sustainable?

Response (Mr. Benyogor): Collaborations and Networking today has gone digital. I am currently interning with the Nigerian Centre for Disease Control and I got to hear of the opportunity on the internet. The digital world is a very critical space we need to invest in. If you want to lecture and institutions are not giving you the opportunity, you can make a video and post it on Youtube thereby reaching out to 100s to 1000s of people in that space that would need that information.
The session was facilitated by Prof. Adedeji Onayade, Director, Institute of Public Health, Obafemi Awolowo University. This speaker was Prof. Abebayo Onajole, Chairman of the Faculty of Public Health National Postgraduate Medical College of Nigeria.

Professor Onajole started his presentation by giving reasons why we should be involved in research management. In his presentation, he was able to establish that research improve health outcomes. Research management also improves quality of care through the Federal Ministry of Health participation in the research process. It drives economic growth through investment by life science industries while strengthening an international competitive position in science. For research to be accomplished, it requires a high level of academic qualification. Ideally, a researcher should be trained through research training at least up to the level of doctorate degree or fellowship program, followed by intensive mentorship from senior researchers. The field however needs capacity building for researchers, identified health research priorities, research financing and per capita publication output. The facilitator used the diagram below to explain the United States NIH health research outlay.
Prof. Onajole highlighted three challenges that poses as a challenge to research in our environment: Inability to access the data; lack of appropriate infrastructure can lead to major inefficiencies of both time and resources when researchers attempt to access or use healthcare data; and making the transition between research and clinical practice—moving from bench to bedside. For a research program to be successful, creating a synergy between research and care improvement teams is important–both from an infrastructure perspective and an operational perspective. Cooperation must also exist between health systems and their academic affiliates.

There are several administrative and managerial issues in the field of research. Failure to timely provision of the required equipment for implementing the research project, lack of research methodology consultant, lack of educated and skilled researchers and not using the research findings in making decisions remain critical administrative issues. In terms of personal problems faced, the researchers' lack of time, financial and economic problems, and the lack of fair and equitable sabbaticals among the staff of research centers are some of the issues to contend with.

He concluded by recommending provision of training and advice on how to select the research topic and motivate the researchers as well as training courses on research methodology and writing research proposals. In all these, there must always be a personal timeline because research does not go on forever, one must have set goals.
Planning is very important and a realistic time projection is imperative as it encourages disciplined use of time and keeps the project on course.

**DISCUSSANTS PERSPECTIVE**

Dr. Daniel Ndukwe: The presentation was very relevant to our context. It is indeed very difficult to do research in this part of the world. We would tend to do better in implementation research. There are certain researches that need very high technology and I don't see us having so much capacity in that area. We can however do a lot better when it comes to implementation research. There are certain health technologies we know that work effectively but how do they get to the end user? What are the contexts that promote it? How do you structure the delivery of these tools in our own context? These are questions that implementation research can answer. In terms of prioritizing, if we are prioritizing our research without the involvement of the policy makers or influencers, the outcome might not make much sense. We need to establish knowledge translation platforms that are functional. We must create platforms where people who would want to use the end product of research meet with the people who are capable of doing that research. The academics must come out of their ivory towers and approach people with less science so they can understand.

Dr. Dapo Ishola: Very clearly, we need to have a short term, medium plan and long-term agenda. In sub Saharan Africa, it often feels that we are not in control of our research agenda. We tend to follow an agenda for research that is set for us from outside. Ebola is an example, if we were in control of our own agenda, Ebola research would have been a priority long before the devastating outbreak few years ago. Ebola as been known for a long time and as been regularly coming back and killing people but it remained among the rank of neglected tropical diseases. In Nigeria we have Lassa Fever, because of Ebola, Lassa is beginning to gain some prominence, however, it has not been near the top of our research agenda in the country for a long time. We need to organize fora to deliberately set our agenda. We also need to be ambitious giving the various challenges we face in this part of the world. We also need collaborations between the different paradigm, we need to collapse the boundaries. In addition, we need more of public private partnerships, this has proven to be very useful in the fight against Ebola. Finally, we need action. One of the problems with a gathering like this is that there might not be follow up. I hope we can challenge ourselves and do something different.

**Discussions**

**Question (Prof. Onayade):** At what point did we lose confidence in our system? Shall we not redevelop our confidence in the system? What can we do to get our politicians to be interested in our health system?
**Question:** A lot has been said about publishing. I think we need to talk about dimensions to publishing. Must all research work be published in reputable journals? As much as we need to publish and let our work be visible, the undergraduate student who is doing a research should not have his objective on publishing.

**Question:** At what point do we bring in policy makers into a research and how? What steps are to be taken in implementation of results from a research.

**Comment:** In the health sector, there is a need for inter-professional collaboration and that is the only way the issue of clinical data access can be overcome.

**Comment:** In response to how you can bring policy makers on board, we can send a letter to the Lagos State Ministry of Health to participate in conferences like this. The ministry would motivate the Primary Health Management Board to the here too. When they are brought on board, they can then make commitments. When we do research, we should always revert to the ministry, be rest assured that somebody somewhere will read it.

**Comment:** We should create a WhatsApp group so we can all keep in touch. The organizers can also add natural fruits to the menu.

**Comment:** In response to the question on where we lost believe in our health system, I think the simple answer to that lies within our human resource. In terms of what we can do to reduce medical tourism, I think international accreditation would go a long way to helping us achieve that.

**Comment (Prof. Brown):** I would like to be emphasized that clinical research needs to be built up and not down played. In America, clinical research has been giving second place in terms of priority and we need to have clinical investigators who are leading this effort. Are we doing that in Nigeria?

**Comment (Femi Kolawole):** In the course of the conversation we have had so far, we seem to have neglected the role of the media. Being a journalist with many years of experience, I have interacted with many professors in the academia and I would say that the quality of knowledge in the ivory towers of the professionals in the academia does not trickle down to the Nigerian society. Posterity media is willing to work with everyone here today in terms of doing interviews of some work you have done and how it has impacted the society.

**Response (Prof Onajole):** There would always be challenges, but it is not enough to go to sleep because of these challenges. Clinical research is critical for the development of our environment and for improvement in health and wealth. We can
create synergy by making everyone be involved from all fields.

**Response (Dr. Ndukwe):** I appreciate all the various contributions, I believe that if we can really take some of our suggestions in concrete terms and plan what to do with them, it would be fantastic.

**Response (Dr. Ishola):** For each one of us, I hope we would go forward and take some action, following this conference.
LUNCH BREAK-OUT SESSIONS

There were four breakout sessions on the Day 2 of the conference.

The sessions are represented in the pictures below:

1. The Global Health Trials Network
2. Inclusivity, Diversity, Equity and Global Health 2
3. Update: HIV prevention and Cure research
4. IOT in health research conduct
PLENARY 6

6.1. Promoting evidence-based response and scientific communication on Global Health

The session was facilitated by Dr Gbenga Ogunfowokan. The first speaker was Dr. Oliver Ezechi, Head of Clinical Sciences, NIMR. In his presentation he spoke about the importance of global health. Diseases do not respect boundaries and there are ethical dimensions to the health and well-being of other people. Health is linked with economic and social development in an interdependent world, it is also important for global security and freedom. 'Global health, like global climate change, may soon become a matter so important to the world's future that it demands international attention, and no state can escape the responsibility to act' he noted. With the eradication of small pox in 1979, 99% reduction in guinea worm infection in 20 countries, fertility reduction in Bangladesh from 7 to 3 children per woman, increased life expectancy by 12-15 years for men and women between 1990 and 2010, and the reduction in the number of HIV related deaths and new infections globally, it is apparent that global health efforts is producing results.

Some of the current challenges with global health include the fact that 9.2 million under 5s die from preventable causes, 214 million women in LIC have no access to contraception, 300 million adults are obese raising risk for chronic disease among
others. To address these challenges an evidence-based response, which is a systematic approach to addressing challenges which allows the integration of the best available research evidence with best practices and standards, should be adopted.

Scientific evidence also needs to be communicated using appropriate skills, media activities and dialogue to produce one or more personal responses to science. It should aim at bridging the know-do-gap which is critical to transforming research into social outcomes. Scientists communicate science can be achieved through written communication (research article, newspaper), oral communication (presentation, meeting) and visual communication (poster, lecture powerpoint). Communication capacity is however critical for the preparedness, detection and response to Global health challenge; and this needs to be built.

Finally, to promote evidence-based research in global health, there is a need to encourage and support the establishment of global health centres in low and middle-income countries while strengthening South-south collaborations. It is also important to build public health capacity at the national and regional levels.
6.2 BMC handling of manuscripts

BMC is Biomedical Central and is a division of the Scientific Publishing Company known as Springer Nature. BMC aims to provide a complete and unbiased scientific record for all publishable research across biology and medicine. The BMC series is a collection of high-quality, peer-reviewed journals covering all areas of biology and medicine, focusing on the needs of the research communities which they serve.

The BMC series is an open access peer review journal in which all published work is viewable by anyone, for free. It provides a home for all publishable research. It has editorial boards are composed of experts in their respective fields. The number of publications is high. In 2015, BMC Research Notes had 13,058 publications while BMC Public Health had 1,301 publications. Accepted research works are published immediately enhancing timely dissemination of information. Accepted research must ask a scientifically sound research question which must fill a gap in the existing knowledge informed by previous research or clinical observations. The research must also use suitable methods and analysis – informed by the community-agreed standards of the research field. If the research in question meets these criteria it can be considered for publication in a BMC series journal. One other advantage the BMC offers is that it promotes interesting stories. For instance a study in BMC Public Health – “Socially isolated individuals are more prone to have newly diagnosed and prevalent type 2 diabetes mellitus - the Maastricht study.” published in December 2017 has already featured on 130 news outlets worldwide. Participants were then taken through the BMC peer review process.
6.3. Research Manuscripts Acceptable Peer-reviewed Journals

Good research is original, Innovative, has valuable new information and research you are interested in. bad research on the other hand is unoriginal, trite, has nothing new, uninteresting and most times, you're not excited about it. If you are not interested in the project, stop, don't waste your time, do something worthwhile.

In writing an article, it is important to review all available published and (if possible) unpublished literature so as to know your subject thoroughly. Secondly, you need to select an appropriate journal for your work. In doing so one needs to considerthings, some of which include; the right audience for your work, online/open access vs traditional and realistic impact factor. Thirdly, you need to start writing SOMETHING, getting started is difficult. Start with the RESULTS—the part you know best. Write the abstract last—it's the most difficult.

The speaker took participants though critical considerations when determining the title of the manuscript, writing the introduction, methods, results, discussion, conclusion and abstracts of the manuscript. He also shared some of the important considerations for developing the tables. He advised on considerations for writing an original article. These include avoiding unnecessary abbreviations and get help with
the English if you need it. Avoid plagiarism by always acknowledging the original source of the idea, text, methods, or illustrations. In addition, remember to enclose within quotation marks all the text that has been copied verbatim from another source. NEVER make false, vague or unsubstantiated statements.
PLENARY 7
Introduction of new GHTN fellows

This session was facilitated by the Global Health Regional Faculty Lead, Dr. Gbenga Ogunfowokan. He introduced the GHN to the participant by playing a video which gave important information about the objectives of the network. The network is an effective way to support you with your research and learning using unique cutting-edge tools. The online platform has a training centre that teaches research methods, new skills and helps increase knowledge. It also has a professional membership scheme which helps researchers develop their careers and get recognition. The aim of the forum is to establish a mechanism for everyone working in clinical research to have access to research tools, resources, guidelines and templates. He went on to invite Dr. Morenike Folyan and Mr. Emmanuel Benyogor for the induction ceremony of the eight new Global Health Fellows.
Induction ceremony for new GHN Fellows

GHN Fellows