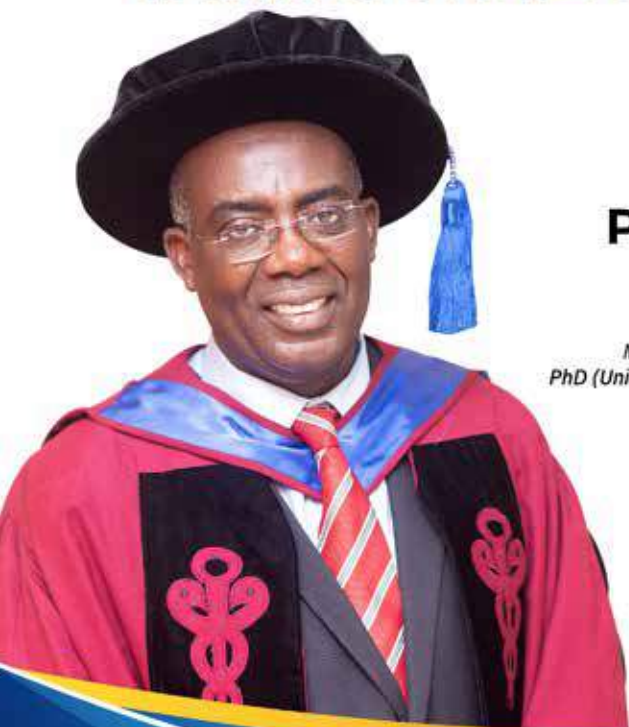




UNIVERSITY
OF GHANA



INAUGURAL LECTURE



Professor Kwasi Torpey

*MBChB (University of Ghana),
MPH (Netherlands School of Public Health),
PhD (University of Antwerp/Institute of Tropical Medicine),
FGCP, FWACP
Dean, School of Public Health*

Topic:

**Ending HIV/AIDS in Africa:
Reflections from the Clinic, Field and Classroom**

Date: Thursday, August 10, 2023

Time: 5.00 p.m.

Venue: Great Hall



VISION

Our vision is to become a “world-class research-intensive University.”

MISSION

Our Mission is to create an enabling environment that makes University of Ghana increasingly relevant to national and global development through cutting-edge research as well as high quality teaching and learning.

VALUES

Integrity

We will demand the highest standard of ourselves to earn the trust of others.

Commitment

We will be committed to knowledge generation that positively impacts the lives of those within and outside our University community.

Respect

We will provide others with a world-class experience that demonstrates our value for the diversity and contributions of the members of our community.

Loyalty

We will demonstrate a strong resolve to give back selflessly to our University.



**UNIVERSITY
OF GHANA**



Inaugural Lecture

by

Professor Kwasi Torpey

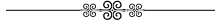
Topic:

Ending HIV/AIDS in Africa:
Reflections from the Clinic, Field and Classroom

Chairperson:

Professor Nana Aba Appiah Amfo
Vice-Chancellor

ORDER OF PROCEEDINGS



- 4.30 p.m.
- Arrival/Seating of Guests
 - Procession
 - Welcome Remarks/
Introduction of Chairperson:
Mrs. Emelia N.K. Agyei-Mensah, Registrar
 - Introduction of Lecturer:
Professor Nana Aba Appiah Amfo
Vice-Chancellor
 - Seperewa
Mr. Osei Korankye
 - Inaugural Lecture:
Professor Kwasi Torpey
 - Interlude:
Ghana Dance Ensemble
 - Presentations
 - Chairperson's Closing Remarks:
Professor Nana Aba Appiah Amfo
Vice-Chancellor
 - University Anthem
(Page 16)
 - Recession
 - Reception

ABSTRACT



The first case of AIDS was first identified in early 1980 in Los Angeles, USA with patients showing evidence of severe immunosuppression. In 1981, the syndrome was described and the virus was subsequently isolated in 1983.

There are two types of HIV. HIV-1 is the predominant type found all over the world. In addition, HIV 2 is found in the West Africa region. HIV 2 is less virulent compared to HIV 1. In Ghana HIV 1 accounts for almost 98% whilst HIV 2 alone or in combination with HIV1 account for approximately 2%.

The origins of HIV range from several conspiracy theories to divine retribution.

Viruses related to HIV-1 have been isolated from the common chimpanzee and several monkey species. There are different clades of HIV -1. Ranging from main group M made up several clades to the outlier O group.

Simian immunodeficiency virus of sooty mangabeys (SIVsmm) is recognized as the progenitor of human immunodeficiency virus type 2 (HIV-2).

SIV infection in humans has been documented. A paper by Marcia Kallish on Emerging Infectious Disease in 2005 among Central African hunters, showed a prevalence of 17.1% in the most exposed, that is those who hunted and butchered or kept non-human primates.

There are about 39million people living with HIV. 20.8 million of them are in East and Southern Africa, 4.8million in West and Central Africa. UNAIDS update in 2023 estimates that a life

is lost every minute due to HIV. This is equivalent to 650,000 HIV related deaths. In addition, there are 4,000 new infections daily. Every week, 4,000 adolescent girls and young women get infected, while 84,000 children died of HIV last year. Sub-Saharan Africa accounts for 51% of all new infections. 76% of people living with HIV are on treatment. Unfortunately for children, only 57% are on treatment. Key populations account for less than 5% of the world population but 70% of new infections occur among them and their sexual partners, underlying their vulnerability and a call to action.

In 2002, the HIV treatment project called START was birthed through a collaboration of Family Health International and the Ministry of Health. The funding was to start the first 100 patients in St. Martin's Hospital in Agomanya and Atua Government Hospital in Atua in the Manya Krobo District, on antiretroviral therapy. Following the overwhelming success in the pilot project, the then UK Department for International Development moved to support the programme. Subsequently the national treatment programme secured funding from USAID, Global Fund and the World Bank. The success was attributable to the commitment of health care workers, facilities, and use of evidence based approach.

The experiences in treating persons living with HIV from the pilot project allowed the development of practice guidelines on the management of side effects like anaemia, peripheral neuropathy, hepatotoxicity among others. Antiretroviral therapy made a huge difference in the life of individuals. There was a reduction in morbidity and mortality. It was clear that patient level strategies at the clinic was effective, however many persons living with HIV did not have access to treatment. This required radical change in mindset to transfer the benefits observed at the clinic to the population level, particularly in countries with high HIV prevalence or population. This influenced our intervention

strategies particularly in Eastern, Southern Africa and Nigeria and marked an important transition in my career by moving the advantages observed in the clinic to the population level.

In Zambia, we implemented the adherence support worker strategy to address the human resource challenges. Adherence Support (Models of Hope in Ghana) are persons living with HIV who are trained to offer adherence counseling and follow up. We showed that the adherence counselling provided by these lay providers was comparable to that provided by nurses. We were also able to demonstrate that HIV testing using lay providers was comparable to testing service by nurses. This important evidence provided a strong basis for task shifting efforts to expand access to HIV services across sub-Saharan African countries.

HIV in children is a blot on the conscience of humanity. This is because we have the knowledge and the strategies to eliminate pediatric HIV Elimination of Mother to Child Transmission in Africa. Mother to child transmission of HIV can take place during pregnancy, labour and delivery and during the breastfeeding period.

In an observation study of over 28,320 HIV positive mother baby pairs from 317 facilities and 40 districts in Zambia, we observed that HIV transmission was lowest among those where baby and mother received prophylaxis and highest among those who did not attend antenatal clinic. In addition, mothers who received the drugs were less likely to transmit HIV to their babies. Women who practiced mixed feeding were likely to transmit HIV to the babies. Other early infant diagnosis studies that we conducted in Kenya and Malawi affirmed this fact.

Majority of pregnant women screened at the antenatal clinic would test negative. Unfortunately, several of them would

seroconvert during the pregnancy because of repeated sexual exposure. In our published work in JIAPAC, we were able to show that pregnant women who seroconverted during pregnancy were four times more likely to transmit the infection to the baby. HIV re-testing among seronegative mothers is essential in eliminating HIV.

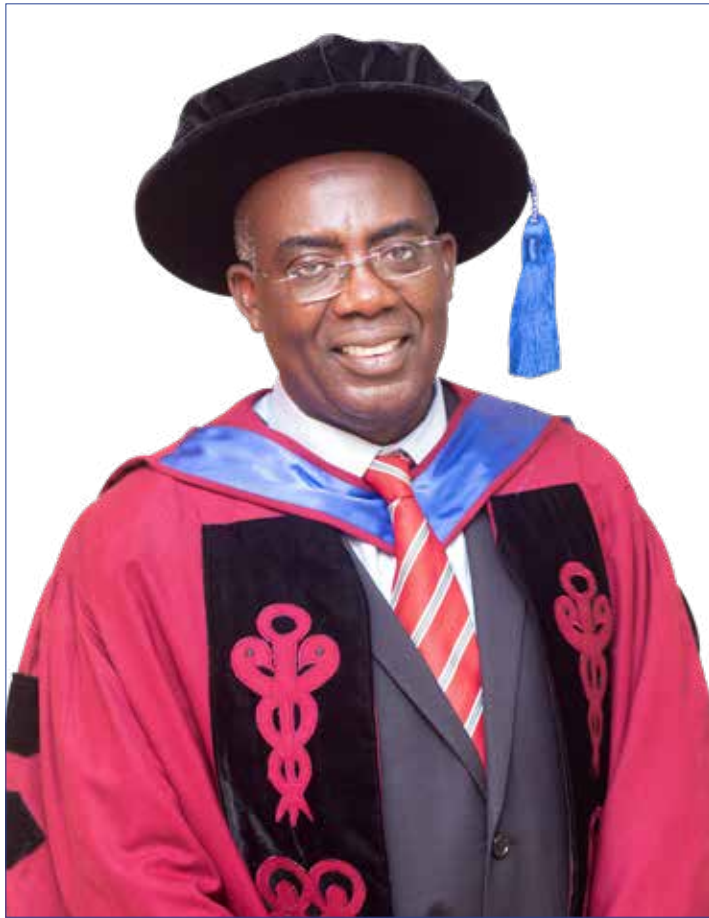
Key populations are defined groups who, due to specific higher-risk behaviors, are at increased risk of HIV, irrespective of the epidemic type or local context. Also, they often have legal and social issues related to their behaviors that increase their vulnerability to HIV. The key populations are important to the dynamics of HIV transmission. UNAIDS describes five main groups as key population. They include the following; sex workers, men who have sex with men, transgender people, persons who inject drugs and prisoners as well as other incarcerated people. Key populations account for less than 5% of the world's population but about 70% of new infections in 2021. In sub-Saharan Africa, 49% of new infections are among the general population, 41% are among sex workers, clients of sex workers and sexual partners of other key populations and 6% among men who have sex with men. In terms of relative risk, for persons who inject drugs the risk is 7X higher, 4X higher among sex workers, 11X among men who have sex with men and 14X among transgender people.

A strong HIV programme can only do well in a strong health system. Globally, official development assistance for HIV from bilateral partners apart from the US Government has declined. The World Bank projects that 52 countries, home to 43% of people living with HIV, will experience a significant drop in their public spending capacity through 2026. The role of domestic financing of HIV programmes will become very crucial. Ghana must make urgent steps to increase its domestic contribution to HIV not only to provide services to its people but also demonstrate

its commitment to the national response. The approval and operationalization of the National HIV/AIDS fund will be a step in the right direction. As a teacher, building capacity of the next generation of implementers and scientists in HIV programming, is an area of great importance. Currently our training grants and scholarships, programme related research and evaluations seek to give hands on experience in programme implementation to our beneficiaries.

The use of long-acting agents in HIV treatment is another interesting area. Evidence from LATTE 1&2, FLAIR and ATLAS studies has shown that long acting Carbogravir and Rilpivirine administered monthly or bimonthly are effective compared to the standard of care for treatment. Carbogravir and Rilpivirine also known as Carbenuva, was approved by the US FDA in January 2021 for two monthly dosing. Lenacapavir is an exciting new drug that was approved in the European Union and UK, recently, in August 2022 for drug resistant HIV. It belongs to capsid inhibitors group. It can be given 6 monthly.

Can we end AIDS in Africa? To get into the right trajectory to end AIDS in Africa, we need to attain the state of epidemic control. Epidemic control of HIV is when the number of new HIV infections is less than the number of HIV deaths. This will lead to a gradual decline of persons infected with HIV. In 2022, West and Central Africa had 160,000 new HIV infections with 120,000 HIV deaths. In Eastern and Southern Africa there were 500,000 new infections and 260,000 deaths. Back home in Ghana, there were 17,000 new infections and 9,900 deaths in 2021. Eswatini, Botswana, Rwanda, Tanzania and Zimbabwe have achieved the 95-95-95 whilst eight others are on track to reach the target. Achieving epidemic control requires systematic reduction of new infections in the Africa region.



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PROFILE



Kwasi Torpey is a Professor of Family Health and Dean of the University of Ghana's School of Public Health. Kwasi has over 26 years' experience as a Physician, Scientist, Researcher, Programme Director and Trainer. He received his MBChB from the University of Ghana Medical School and his Master of Public Health in International Health from the Netherlands School of Public Health. He obtained his PhD in the Institute of Tropical Medicine and the University of Antwerp in Belgium. Kwasi is a fellow of the Ghana College of Physicians and the West Africa College of Physicians. He is Honorary Associate Professor of the London School of Hygiene and Tropical Medicine and an Associate Fellow of the Amsterdam Institute of Global Health and Development in the Academic Medical Centre at the University of Amsterdam in the Netherlands.

He is also the Scientific Chair of International Conference on HIV Treatment, Pathogenesis, and Prevention Research in Resource-limited Settings (INTEREST); the first African to serve in that role. Professor Torpey's work has focused largely on infectious diseases particularly HIV, TB, hepatitis and more recently COVID 19. Non communicable diseases, reproductive health and health systems are also key areas of his research.

Kwasi, prior to joining the University of Ghana had a long and distinguished career working for Family Health International (FHI360), an international NGO based in the United States. Spanning over a decade and half, his work involved implementing public health programmes in Ghana, Nigeria, Kenya, Uganda, Botswana, Ethiopia, Eritrea, Tanzania, Mozambique, South Sudan, Papua New Guinea, Zimbabwe and Zambia, for a wide range of clients. They include the United States Agency for International Development, United States Centres of Disease

Control and Prevention, World Bank, UK Department for International Development, United Nations donor funded projects and Ministries of Health in sub-Saharan Africa.

Within Family Health International, he served in the following roles; Deputy Chief of Party and Technical Director for the \$443million USAID-funded Strengthening Integrated Delivery of HIV/AIDS (SIDHAS) project in Nigeria; Senior Regional Technical Advisor (Africa Region); and Director, Technical Support for Zambia. Across these positions he has provided technical support to country programs in HIV prevention, care and treatment. He served as the clinical lead to design and implement the START program in Ghana. This was one of the first public sector HIV treatment programs in Africa and culminated in the access of HIV treatment in Ghana. He subsequently provided technical assistance in the expansion of HIV treatment in Zambia, Nigeria, and several sub-Saharan African countries. During this period, he led or co-led several proposals raising over USD 1.5 billion in grants for HIV and other public health program implementation in Nigeria (accounting for over \$900 million), Zambia, Kenya, Ghana, Tanzania, Mozambique and Zimbabwe.

Kwasi also served in the Ghana Police Service at the Police Hospital as a Public Health Physician and a Deputy Head of the Ghana Police AIDS Control Programme. He was involved in early efforts to control HIV among most at risk population within the Police Service.

Capacity building and mentoring

Kwasi brings on board strong mentorship capacity to prepare the next generation scientists and researchers. Within Family Health International, he led the Regional Resource Network to identify, train and mentor young and promising Africans to take leadership in public health and HIV programming through the accelerated professional development initiative. Several of

the members of the network are currently leading the national response in their respective countries. He has continued these efforts in the Africa Region as Principal Investigator for the World Health Organization Human Reproduction Program Alliance for Anglophone Africa, based in the University of Ghana School of Public Health. It is aimed at strengthening research capacity in sexual and reproductive health rights. This project has offered 26 scholarships to African students including 11 Ghanaians to study for Masters and PhD at the University of Ghana. Kwasi is the also Site Principal Investigator, for HIV Co-morbidities Research Training in Ghana (HIV-ComRT), a collaboration between the University of Ghana and Yale School of Medicine, funded by National Institutes of Health/Fogarty which offers scholarships exclusively to Ghanaian students at the Masters, PhD and post-doctoral level. To date 13 Ghanaians have benefitted from these scholarships.

Research and Grants in UG

Prof Torpey has a strong research portfolio successfully winning grants from Ghana Health Service, World Health Organization, Global Fund, World Bank, National Institute of Health/Fogarty International, GIZ, USAID among others. Since 2016, he has successfully won over 24 grants totaling over \$10million dollars (1.5million/per year). He is the Principal Investigator in the following research studies and initiatives;

- Integrated Bio-Behavioural Surveillance Survey 2022.
- World Health Organization-Long Term Institutional Development HUB Grant for Sexual and Reproductive Health Rights
- Development and delivery of online MSc in Reproductive Health in collaboration with London School of Hygiene and Tropical Medicine

- Rapid assessment of persons who use and inject drugs in Ghana
- World Health Organization Multi-country research study to assess content validity of a new sexual health related survey instrument
- COVID-19 and Pregnancy and neonatal outcomes in Ghana
- Socioeconomic impact of COVID-19 on the poor and vulnerable within the context of HIV, TB and Malaria
- HIV Co-morbidities Research Training in Ghana
- Evaluation of Strengthening Continuum of Care Project for Key Populations.
- Validation of Clinical Prediction Score for HIV-Hepatitis C coinfecting patients.
- Assessing the Effectiveness of Key Population Interventions in Ghana

He is co-principal investigator of the Treatment Outcomes and Adverse Effects in patients initiating and maintaining a Dolutegravir based treatment regimen in Ghana and the WHO funded Health systems analysis and evaluations of the barriers to availability, utilization and readiness of sexual and reproductive health services in COVID-19 affected areas.

Consultancies, Committee and Boards at the international level

Prof. Torpey has consulted for several organizations in different countries including Global Fund Against TB, HIV and Malaria, World Health Organization, Family Health International, United States Agency for International Development, ViiV Health Care, Johnson and Johnson, Abt Associates, USA and among others.

He is a member of the World Health Organization Pregnancy and COVID 19 Research Study Group.

He has served in the following roles; AIDS Fonds Grant Review team; Member of the panel of experts on AFRICA BUILD: European Commission in Africa to build capacity for sustainable research; Member, Adult HIV Care and Treatment Expert Panel, World Health Organization-PEPFAR Collaboration among others. Prof Torpey worked as a member of Global Fund Technical Review Panel in Geneva, Switzerland. These are global technical experts selected to review and recommend proposals in HIV, TB and Malaria for funding. Prof Torpey served as the focal point for the HIV team from 2014-2018. During his tenure, the TRP recommended a total of 12 billion dollars for New Funding Model 1 and 14 billion dollars for New Funding Model 2 for 110 countries. Professor Torpey was re-selected in 2023 to serve another four-year term on the Technical Review Panel.

Committees and Boards at the National Level

At the national level, he is a member of the Governing Council of the Ghana AIDS Commission, Non-communicable Disease Multisectoral National Steering Committee, Ministry of Health Universal Health Coverage Task Force, Ghana Health Service HIV Technical Working Group, CTASK Team of Differentiated Service Delivery among others.

University Committees and Boards

Within the University of Ghana, he is a member of several statutory and adhoc committees including Chair, College of Health Sciences Academic Quality Assurance Committee; Member, ORID Management Committee; Member, College of Health Sciences Research Board; University Academic Board; College of Health Sciences Academic Board etc.

Contribution to Science and Teaching

Prof. Torpey played a key role in HIV treatment in Ghana and Sub-Saharan Africa, translating clinical research findings

into guidelines and policy to improve access in HIV testing, prevention of mother to child transmission and clinical care. He originated the adherence support worker concept and task shifting, outreach model in HIV care in Zambia, HIV adherence calendar and community HIV treatment approaches in Nigeria. Kwasi is a thought leader in HIV-noncommunicable diseases integration and has introduced different implementation models in Zambia, Kenya and Nigeria.

He has published over 100 peer reviewed publications, over 70 peer reviewed conference abstracts, three book chapters and several technical reports. He has supervised 29 students at the masters level and successfully supervised 14 PhD students who have graduated or defended their thesis, with another one submitting their work for assessment. He is currently supervising an additional 12 PhD students who are in different phases of their studies.

Professional Associations and Awards

Prof. Torpey is a member of the International AIDS Society, American Public Health Association, HIV Medicine Association and Infectious Disease Society of America and Ghana Medical Association. He is a fellow of the Ghana College of Physicians and Surgeons and West African College of Physicians.

He is the first recipient of Dr. David Barry prize for outstanding contribution to HIV treatment. He also received the Distinguished and Pioneering Role in HIV Treatment in Ghana Award.

Family

Prof. Torpey is married to Mrs Juliana Torpey and blessed with three children namely Gianna, Keith and Albert.

UNIVERSITY ANTHEM



Hail University of Ghana
The nation's hope and glory
The place that bears the star of peace
That bids us all to do our best
Let the great Tower of learning
Inspire both young and old
May we proceed in unity to uphold the public cause.

//: Arise, arise O Legon
Defend the cause of freedom
Proceed in truth and integrity to make
Our nation proud: //

We ask for strength and wisdom
As we climb the hill of learning
May we excel in what'er we do
As we prepare to face the world
With a mind ready at all times
And a conscience quick to feel
May we proceed in unity to uphold the public cause.

//: Arise, arise O Legon
Defend the cause of freedom
Proceed in truth and integrity to make
our nation proud ://

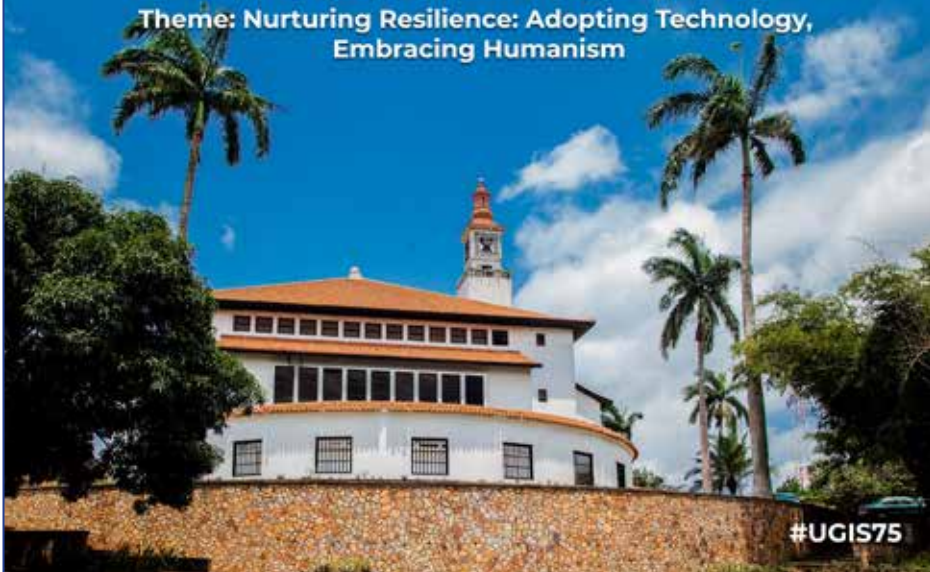
***(Prof. Emeritus J. H. Kwabena Nketia)
(1921-2019)***



UG IS



**Theme: Nurturing Resilience: Adopting Technology,
Embracing Humanism**



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