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Former Chairperson of Taskteam for the Plan for the CCMT of HIV/AIDS
ENVISIONING A STRATEGY TO PREPARE FOR THE LONG-TERM BURDEN OF HIV/AIDS:

AFRICAN NEEDS AND U.S. INTERESTS

The Role of Science Academies in Building Capacity for HIV/AIDS
The Age of Knowledge

• ‘The power of ideas are more important than the ideas of power’ (Julio Frenk) in this Age of Knowledge

• Science Academies are by definition one of the richest treasure troves of ideas and knowledge in any society

• Yet, with the exception of the IOM : they are vastly underutilised

• Respect, hlomipha : academician/policy maker/member of public – key to influencing their decisions and behaviour

• Lessons of history :
  - the role of academies in the Italian Renaissance and
  - guilds in the Industrial Revolution
  - Bantu education and the destruction of African society (Fort Hare)
  - (Academy of Motion Pictures in spreading american culture across the globe!)
Determinants of Sustainability of HIV/AIDS Treatment and Care in Africa

• Health Systems: HIV/AIDS as a chronic disease, 50 years or more
• Human Resources
• Cost of Drugs – first, second and third line regimens
• Cost of Diagnostics
• Political Will and Civil Society pressure
• Research and Innovation - both technological and social innovation
• Evidence-based policy implementation
• Progress in prevention of HIV infection:
  - resources needed for treatment increasingly exceed the projected realistic capacity to sustainably respond
  - 10X increase in numbers needing treatment unless dramatic reductions in infection rates;
• Poverty, education, health literacy, social mobilisation
• Infrastructure – communications, transport, water
• International Solidarity – PEPFAR, bilateral aid agencies, NGOs

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Reference: Doctoral Students in SA: A statistical Profile based on the Hemis Data: a report commissioned by the ASSAF Panel on the PHD. Centre for Research on Science and Technology Stellenbosch University. 16 July 2009
Brain Drain

Six of the top ten countries with the highest percentage of emigrated educated citizens are sub-Saharan African countries.

- There are more highly qualified medical doctors of Ethiopian origin in Chicago than in Ethiopia.
- There are more Malawian medical doctors practicing in Manchester than in all of Malawi.

Africa spends US$4 billion yearly to hire foreign experts and consultants. *(International Office of Migration)*

Shortage of world-class local skills, and reliance of donors on foreign professionals rather than local experts.
Knowledge Gaps

World shares of ISI-listed S&E papers

74.0% 24.6% 1.4%

Africa
Rest of South
North

Average 2003-2007

Source: TWAS, May 2008
103 science academies are members of the InterAcademy Panel on International Issues (IAP)

5 African Members
IAMP:
African Academy,
Egypt, Kenya, Malawi, South Africa

Countries with merit-based science academies
Some Sources of Scientific Advice to Policymakers

- The Media
- The Internet
- Personal study
- Personal Contacts
- Lobbyists
- Government Scientists
- Government Panels
- Universities
- Foreign Consultants
- Foreign Governments
- International Bodies such as WHO
- National Science Academies: PEPFAR evaluation for Congress in 2007 by IOM led to dramatic increase in budget and changes in design

(Patrick Kelly: ASADI)
The Unique Role of National Science Academies In Africa

- Convening power to mobilize the best scientific minds from across the nation and the continent
- Can help foster innovation through multidisciplinary, multi-sectoral discourse
- Apolitical, trustworthy, not motivated by profit
- Features scientifically rigorous analyses of evidence and the consensus of diverse experts
- Can clarify emerging scientific issues
- An independent, credible “second opinion” in the face of politically charged issues
- A Supreme Court for science:

ALSO:

- Longterm view, beyond the 3-5 year time horizon of politicians
- Strategies to stop the ‘brain drain’; and begin the ‘brain regain’
- Prominent positions in the Universities that train human resources, design curricula etc
How Science Academies Provide Evidence-based Advice

The African Science Academy Development Initiative

Senegal, Ghana, Nigeria, Cameroon, Kenya, South Africa and Uganda
Strengths of merit-based academies  
Working Across Sectors

• Excellence and international recognition of members: best scientists elected by peers only on merit
• Diversity and expertise of members: world-class leaders in various disciplines of medical and health sciences
• Independence: can express objective, unbiased and evidence-based opinion on critical issues
• Global network of academies of science and medicine committed to improving health worldwide (IAMP, IAP)

ALSO:

• Engaged in education and capacity development of healthcare workers
• Indigenous and therefore understand the culture and constraints of the local environment
• Speak the local language!

(Mohamed H.A. Hassan : Global Forum for Health Research, Havana, Cuba, 16-20 November 2009)
Working across sectors: Academies of Science and Medicine

- S&T community
- Private sector
- Decision-makers
- General public

Academies of science and medicine
IAMP’s core mission is to contribute to science-based efforts to improve the health of people worldwide by supporting and assisting its member academies to strengthen their capacity to:

• **Promote** health through research, health interventions and education

• **Build capacity** in health sciences and health professions

• Provide independent, evidence based **Advice** on health and science policy to governments, international organizations, both public and private, and the public at large.
Forum, Workshops and Consensus Studies

• Brings together in a neutral setting representatives of academia, government, industry, and others for ongoing discussions to illuminate critical issues and potential solutions consistent with the society’s priorities, values, and resources.

• Policy studies or other formal advisory activities carried out in a unique way to explore in depth an issue of importance to the country and its government. Studies offer evidence-based guidance to national decision makers concerned with science and technology.

• Is intended to issue conclusions and recommendations in the name of the Academy because the procedure is independent of sponsors and government and is managed to minimize biases and conflicts of interest.

(Patrick Kelly)
Characteristics of the Best Scientific Advice to Policymakers

- Transparent and open to public input
- Objective, evidence-based, referenced
- Thorough, fair, and balanced
- Conveys uncertainty fairly and completely
- Differentiates fact from judgment
- Contextually grounded
- Candid and apolitical
- Independent of particular interests
- Represents a multi-disciplinary consensus
- Rigorous peer review

(Patrick Kelly)
Next Steps

An Activist Academy Agenda

- Convene multidisciplinary councils from each African Science Academy

- Set TORs for the councils that include:
  - advice to government including Ministries of Health
  - curriculum reform

- Ensure these councils meet with relevant University bodies: Committee Deans, AIDS Research Centres,

- They must also meet with Science Councils, Dept of Health, SANAC, Pharma etc

- Convene fora at the biennial South African AIDS Conference, IAS meeting, Global Forum for Health Research
Next Steps

• Undertake commissioned projects within consortia e.g. Epidemiological studies with ASSA; fiscal studies with FFC;

• Undertake Reports such as the ‘HIV/AIDS, TB and Nutrition’ study

• Evaluate the impact of those reports through semi-structured interviews with key decision makers

• Partner in such work with NAS/IOM, NIH, PEPFAR

• Collaborate with ASADI Academies of Science and others in Low and Middle Countries in work within the field

• Provide role models and champions for young people to enter careers in science and healthcare professions

• Help science and health literacy amongst politicians and the lay public
Next Steps

• Assist partners in collating scientific evidence on best practice in HIV/AIDS prevention, treatment and care: and ensure dissemination to government

• Work with media and NGOs in health promotion interventions to inform and educate the public about sustainable responses to HIV/AIDS

• Capitalise upon the respect, hlonipha that policy makersf and members of the public have for Academicians in order to influence their decisions and behaviour in mobilising a sustainable response to HIV/AIDS