



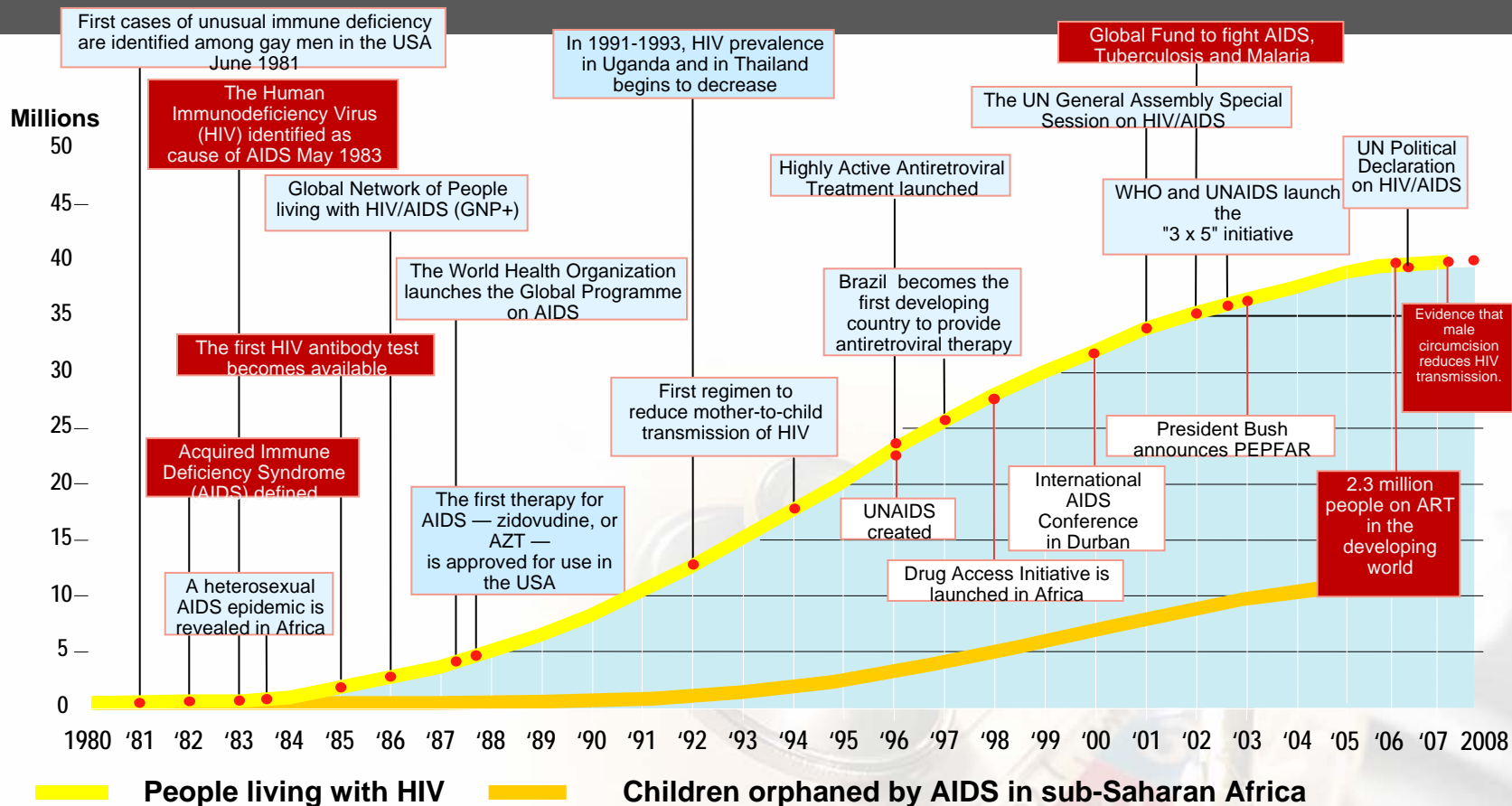
HIV VACCINE DEVELOPMENT- CHALLENGES/OPPORTUNITIES FOR AFRICAN SCIENTISTS

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27/25 years of responding to AIDS.....

SOURCE: UNAIDS

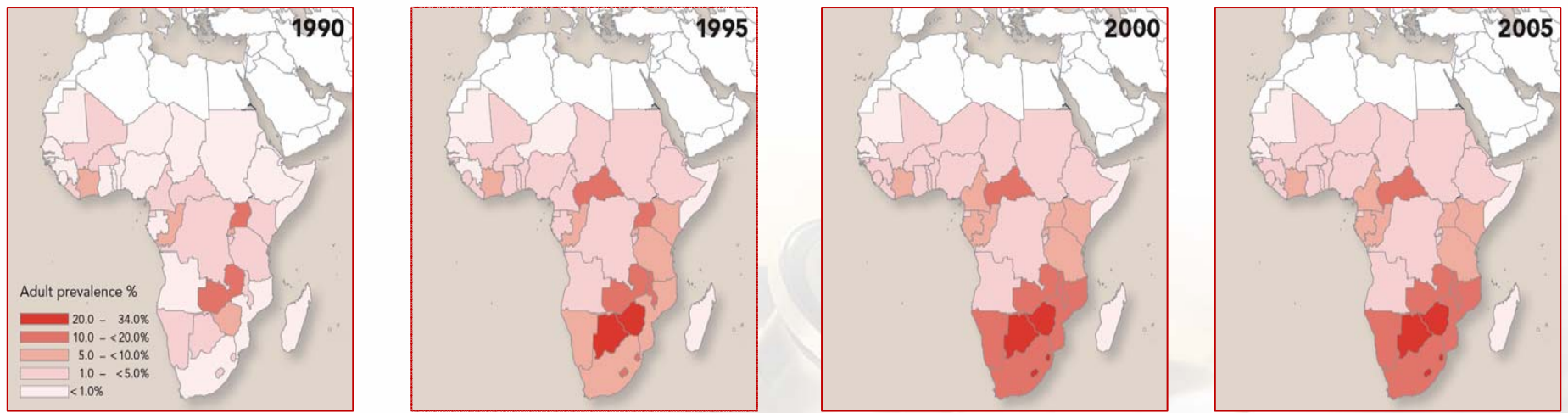


The chronology above summarises the 'BIG Picture' of AIDS

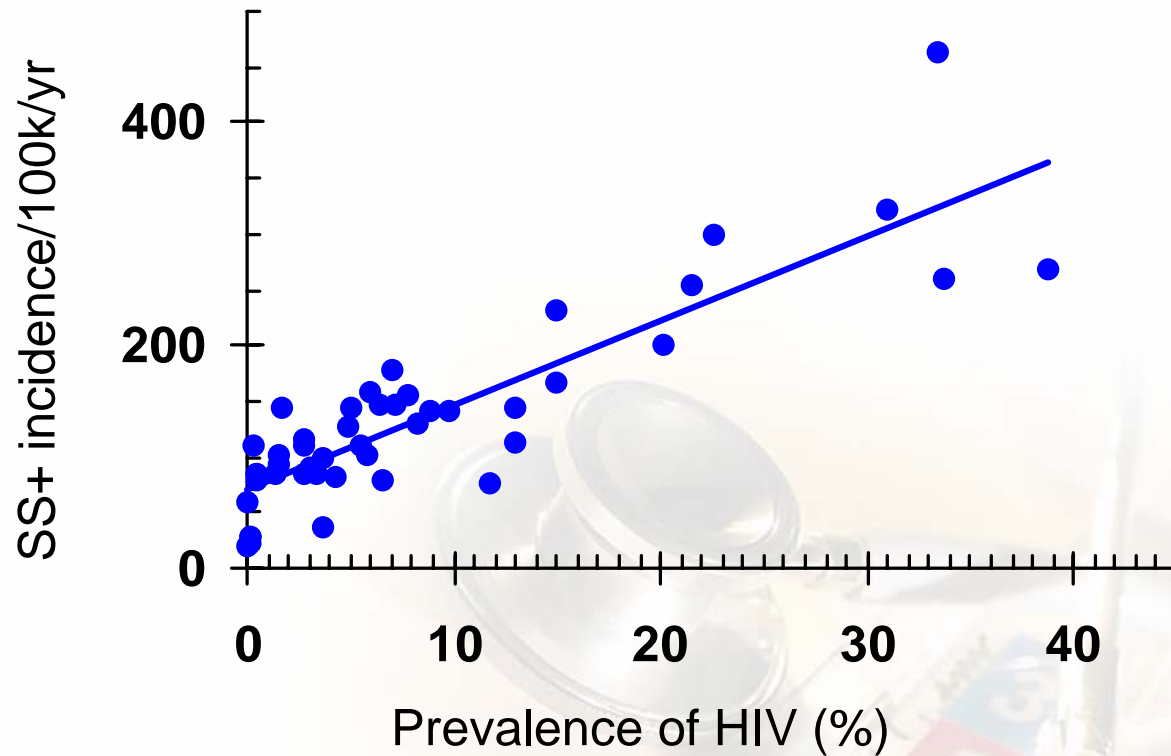
1. The response to the HIV/AIDS epidemic has been global, incremental and is improving;
2. Despite this response, the epidemic has continued to grow in certain regions of the world, particularly Africa;
3. Major milestones & lessons have been achieved & learnt over this period through excellent scientific research e.g. the discovery of HIV in 1983;
4. We now know what works best and that which does not work in the epidemic; in both prevention & treatment e.g. that unsafe sex is a risk factor to global health;
5. Future challenges and obstacles both scientific & socio-cultural, are understood better as a result of this wealth of knowledge;
6. With this concerted, coordinated global approach, the global community is in a better state to control and ultimately manage the many facets of the epidemic better e.g. stigma, discrimination and HIV vaccine development.



The evolving HIV epidemic in Africa

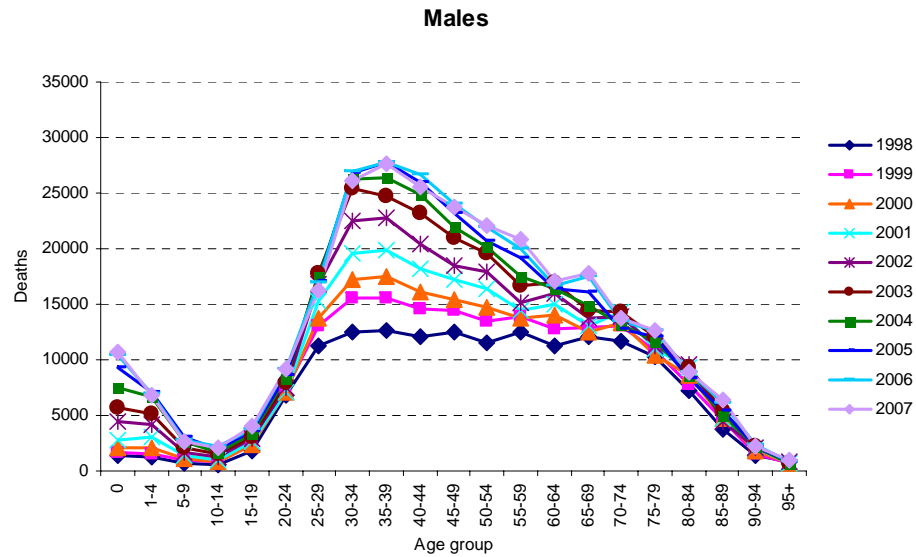


Impact of HIV on TB

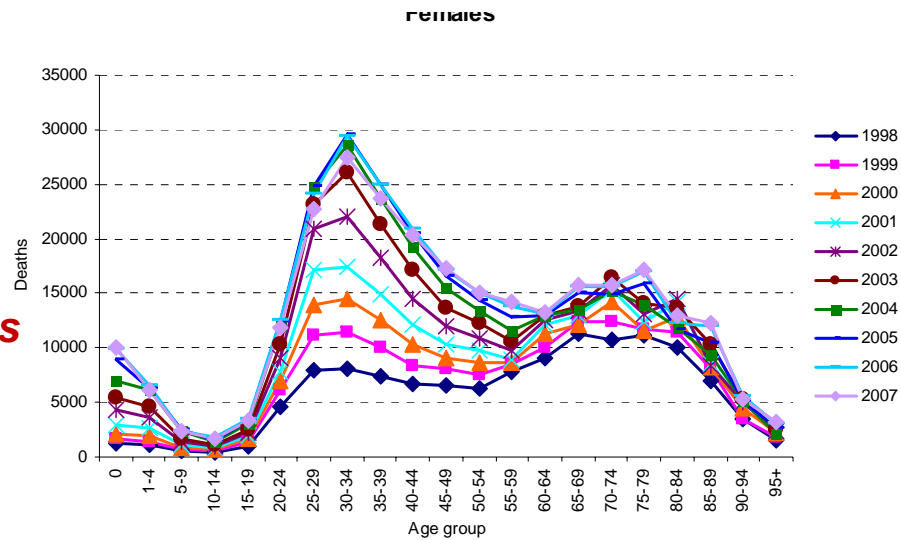


Number of deaths on population register

Male



Female



Two Universal Biological Principles are broken

Africa's Response to AIDS/HIV Epidemic

1. Denial--homosexuality & proven scientific measures;
 - Reverend Banana
 - 'Matonyola'
 - 'Inkonkoni', 'Sitabane'
2. Racialised--origins & heterosexual epidemic;
3. Stigma & discrimination—silenced;
4. 'Shading' scientific findings;
 - Question Stats, Causality
 - Give mixed messages - 'Knofel' approach
 - Misrepresent scientific findings
 - Deny Nevirapine efficacy
 - Introduce 'Voodoo' Science
5. The voice of Africa's Scientists was not loud enough

What Opportunities did Africa lose?

- The opportunity to control the emerging epidemic early
- The opportunity to save lives and future investments (Quality of Life, Education, Human Creativity..)
- **The opportunity to impact significantly on mortality and its pattern ***
- The opportunity for society to trust science and its ethos
- The opportunity to set the research agenda
- The opportunity to set the parameters for 'modern morality'

Vaccine «Investing in the Invisible»

- **Treatment is neither sustainable nor economically affordable**
- **Vaccine development provides an opportunity for Africa to invest in the invisible:**
 - **In Africans to conduct cutting-edge research**
 - **In training a new generation of researchers**
 - **In African capacity building to contribute in setting the appropriate research agenda**
 - **In creating Centres of Excellence**
 - **In participating meaningfully as scientists in the new biology revolution**
- **African leadership and governments must invest financially and in the long term**
- **African science and scientists will succeed in an environment where they are able to:**
 - **Focus**
 - **Commit more time into active research**
 - **Career security and career development**

Taking advantage of global goodwill

- **Gobal ‘*Goodwill* ‘ and networks in the following:**
 - **NIH and its Vaccine Centre**
 - **The Global Vaccine Enterprise**
 - **The Bill and Melinda Gates Foundation**
 - **Several PPP’s e.g. IAVI**
 - **Others, e.g. the Human Virology Centre in Baltimore**
- **Current public pressure on the Scientific Community**

Opportunities 2031/2033?

Out of the 'box thinking'

1. A different way of doing science eg the Global Vaccine Enterprise and Centres of Excellence in the developing countries
2. A convergence and an integrative approach to research that creates new knowledge spaces
3. New approaches eg proteo-genomic
3. May not be T cell or antibody-mediated
4. More scientists from developing countries shaping the future research of the epidemic
5. Translation of the wealth of knowledge for effective solutions that provides opportunities for new knowledge production

Challenges 2031/2033?

What should African Scientists avoid?

- **Being politicaly correct**
- **Being unfocussed on the big scientific questions**
- **Participating in unequal partnerships**
- **Unnesesary travelling ... and invest more time in conducting research**

With special thanks to

Professors Salim & Quarraisha Abdool Karim of CAPRISA

Assoc Prof Debbie Bradshaw, Ria Laubscher of
South African Medical Research Council

in acknowledgement for their data & assistance in
preparing this presentation

