



The Case for a Paradigm Shift in the Education of HealthCare Professionals in Nigeria

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Scope of My Presentation

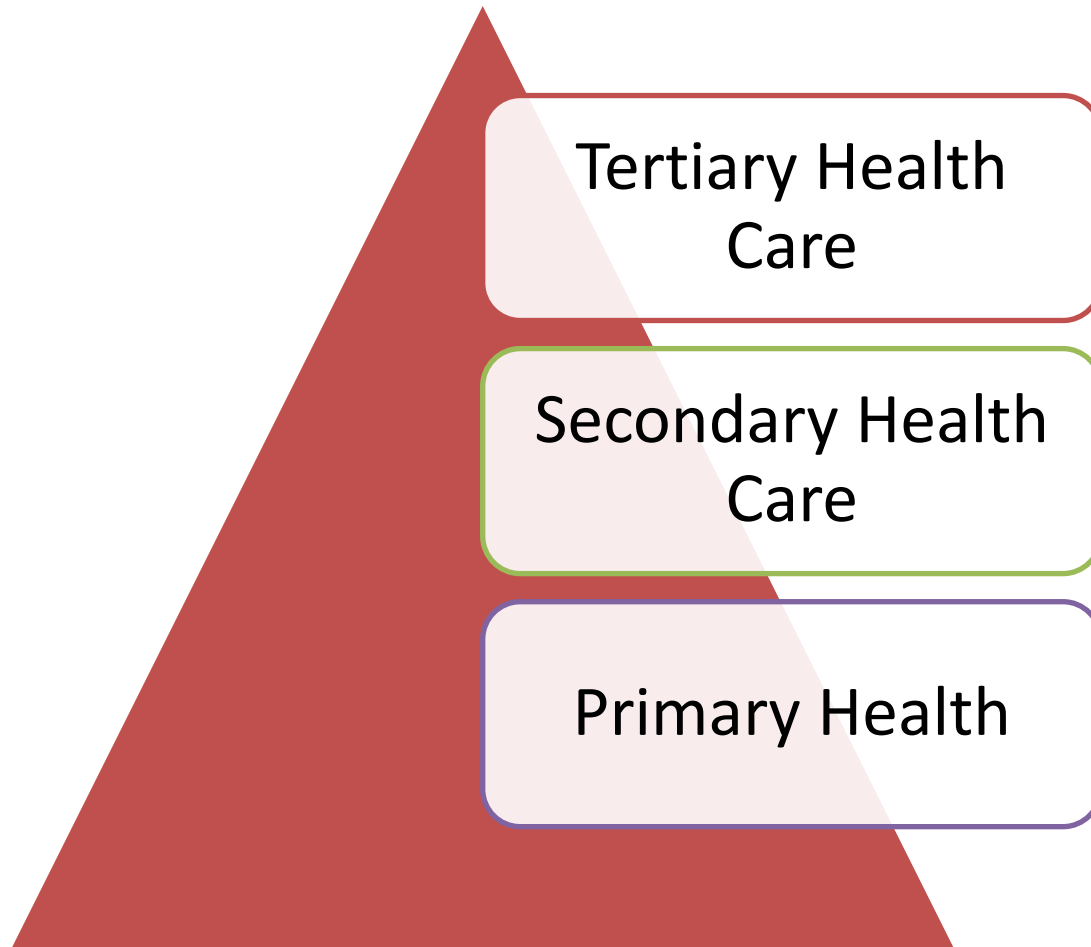
- Part I will identify the major health professions in Nigeria.
- Part II will identify the maladies within our health care systems.
- Part III will propose concrete policy and value-added curriculum content recommendations that will make our health care system the envy of the world.
- Part IV will focus on the **unique role** that I believe this young but inspiring university will play in **fostering health sciences education** in Nigeria.

PART I

The Health Professions in Nigeria

- **Medicine and Dentistry**
- Medicine is offered in 37 universities
- Dentistry is offered in 12 of the universities
- **11 Allied Health Professions**
 - Physiotherapy (12), Occupational Therapy (1)
 - Pharmacy (21), Optometry (6), Nursing (29),
 - Medical Lab (8), Radiography (7) ,
Nutrition/Dietetics (4),
 - Prosthesis and Orthotics (1) Biomedical Tech
(2), Community Health (6)

Nigeria Health Care System Structure



The Significance of the College/Faculty/ Nomenclature

- Training schools bear three distinct nomenclatures:
- College/Faculty of Medicine
- College/Faculty of Health Sciences
- College of Medicine and Health Sciences.
- I will later discuss this anomalies further

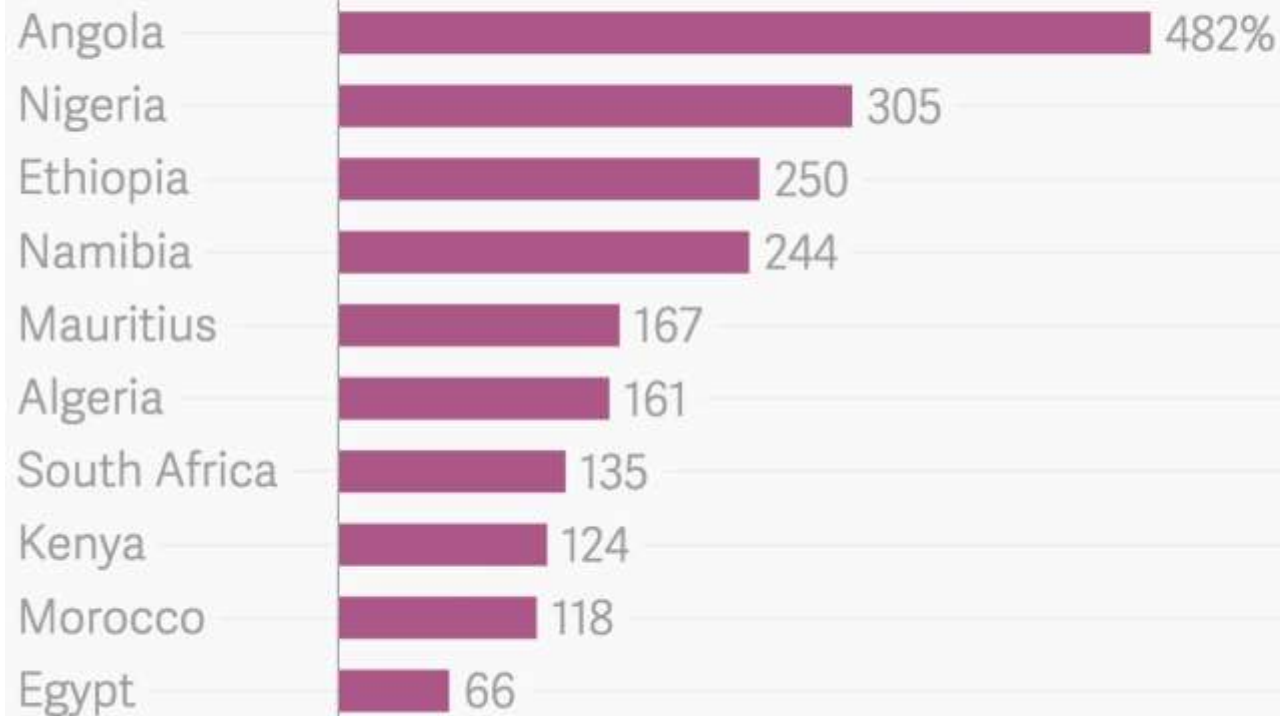
PART II: Top 10 Maladies in the Nigerian Healthcare System

- Overall quality of life: Nigeria ranked 77 out of 80 of the “best countries.”
- Health care systems Nigeria ranked 187 out of 191 WHO's member states
- Nigeria ranked second after Angola on the list of Africa's top producers of millionaires

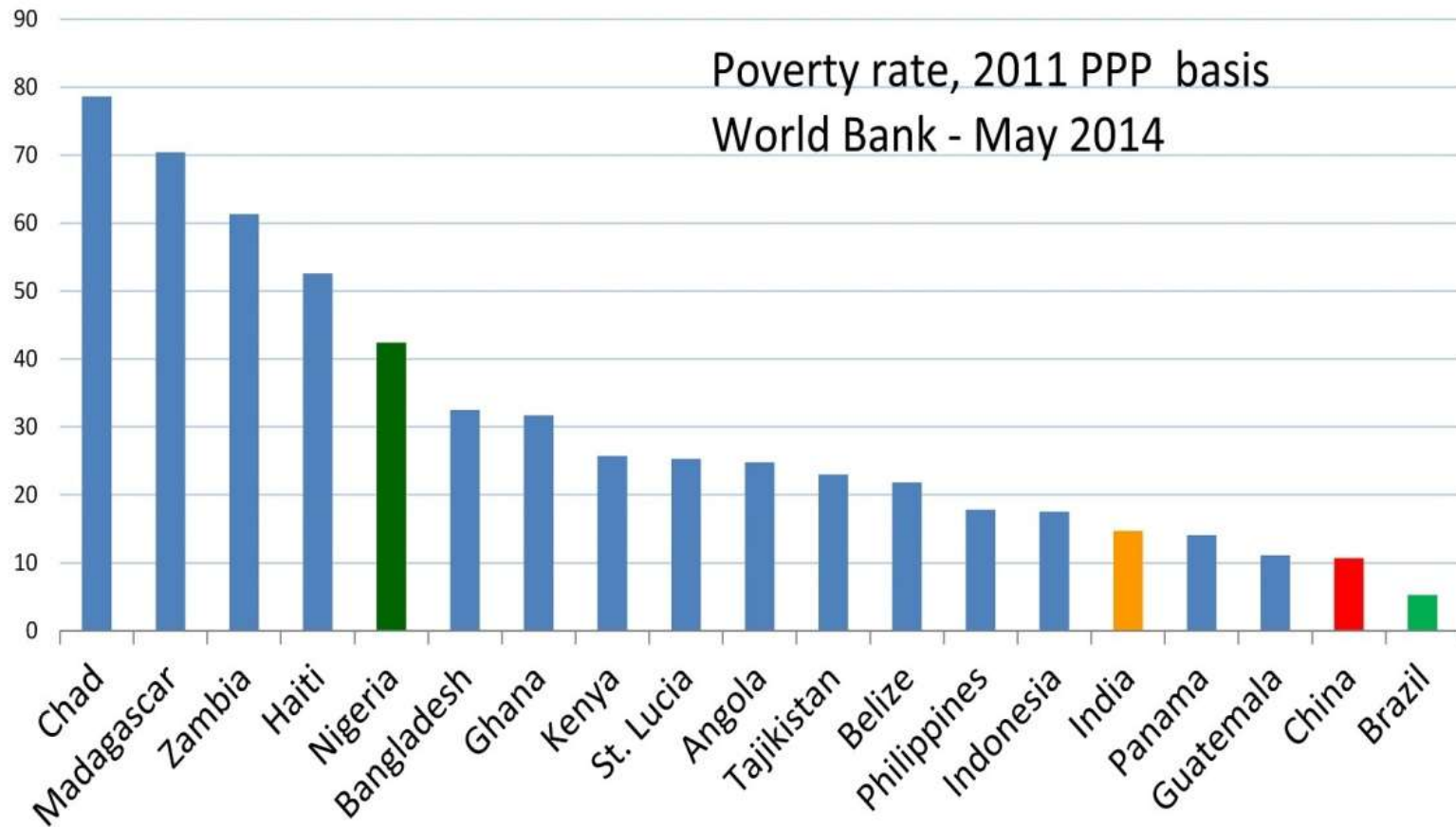
Africa's Top Producers of Millionaires

Africa's top producers of wealthy individuals

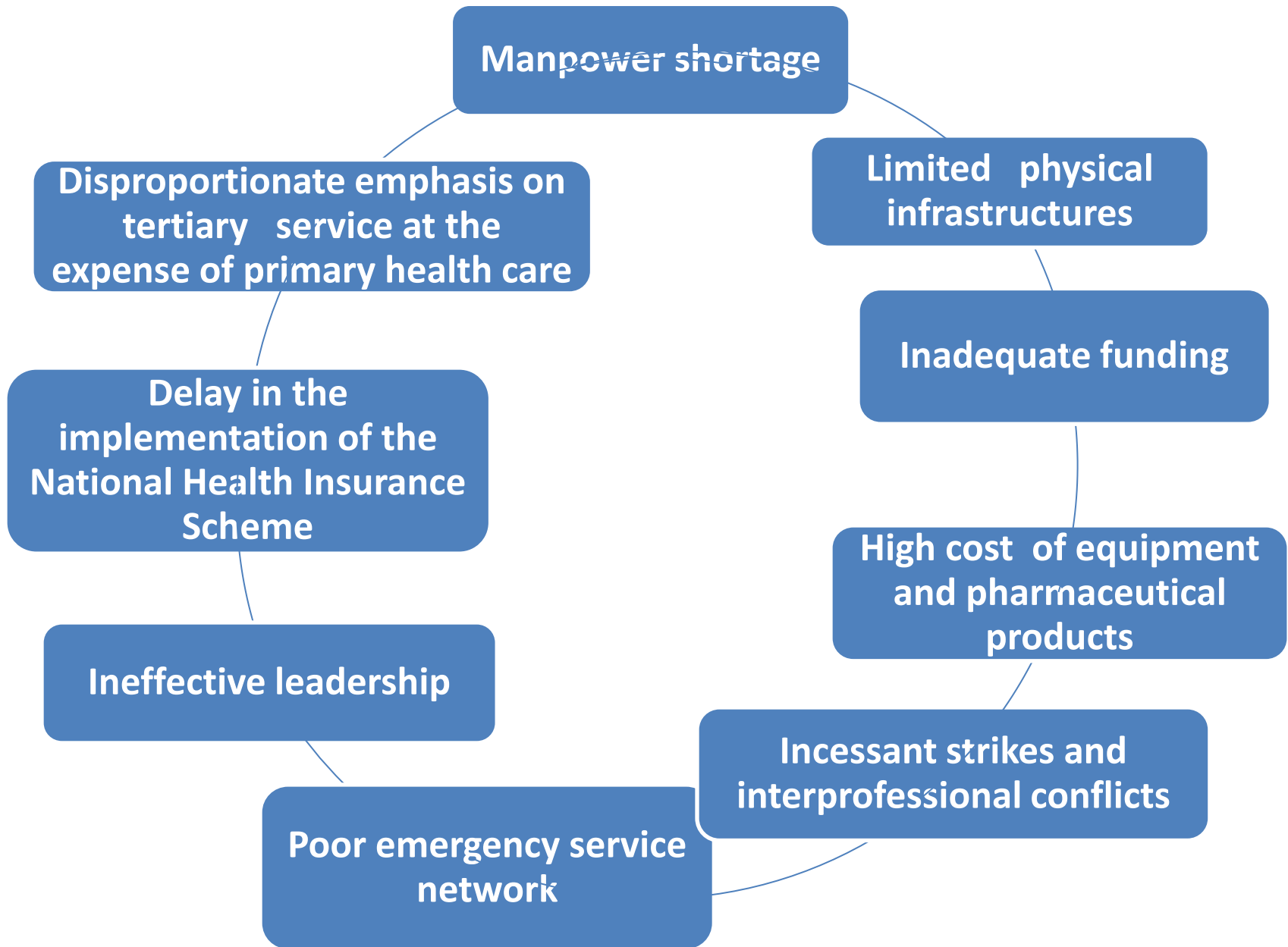
Growth in no. of millionaires, 2000 - 2014



Global Poverty Rate



The Maladies in the Nigerian Health Care System



Disproportionate Emphasis on Cure of Disease at the Expense of Preventive care

- Communicable diseases are the major causes of death in Nigeria. Notwithstanding the scourge of these diseases, successive Nigeria governments only pay lip service to preventive care.
- Nigeria has one of the worst maternal mortality rate in the world; we ranked 10th after Chad, Somalia, Central Africa, Sierra Leone, Burundi, Guinea-Bissau, Liberia, Sudan and Cameroon
- Yet, **over 80% of the health budget continues to be allocated to curative care** - (teaching and specialist hospitals) and less than 10% is allocated to primary healthcare

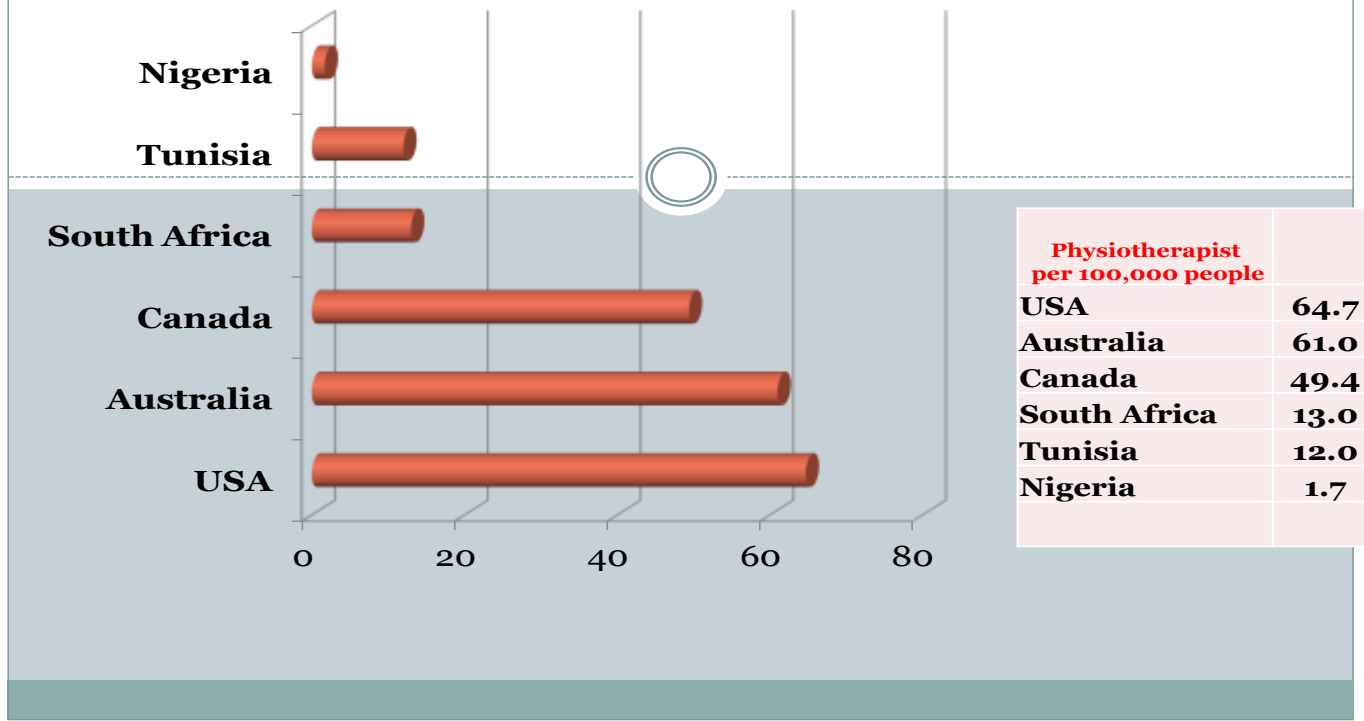
Shortage of Manpower

- One of the major dysfunctions within the Nigeria healthcare system is the shortage of healthcare professionals.
- The physician/patient ratio in Ondo State is about 1:14,000 compared to the 1:5,000 global standard prescribed by the WHO
- When compared to the rest of the world, Nigeria has one of the highest (i.e., worst) health professionals-population ratios

Shortage of Manpower

- Nigeria at **0.389 MD per 1,000** people is far from meeting the low benchmark of 2.5 MD, RN/1,000 people set by WHO
- Acute shortage of physiotherapists (PTs)
PT/resident ratio (density) stands at 63,349 - **one of the highest in the world**

Figure 6: Global comparison of physiotherapist workforce per 100,000 people



Physiotherapist per 100,000 people	
USA	64.7
Australia	61.0
Canada	49.4
South Africa	13.0
Tunisia	12.0
Nigeria	1.7

Limited Health Facilities

34,173

66% of the facilities
are government-
owned

Tertiary Health Care

83

Secondary Health Care

3,992

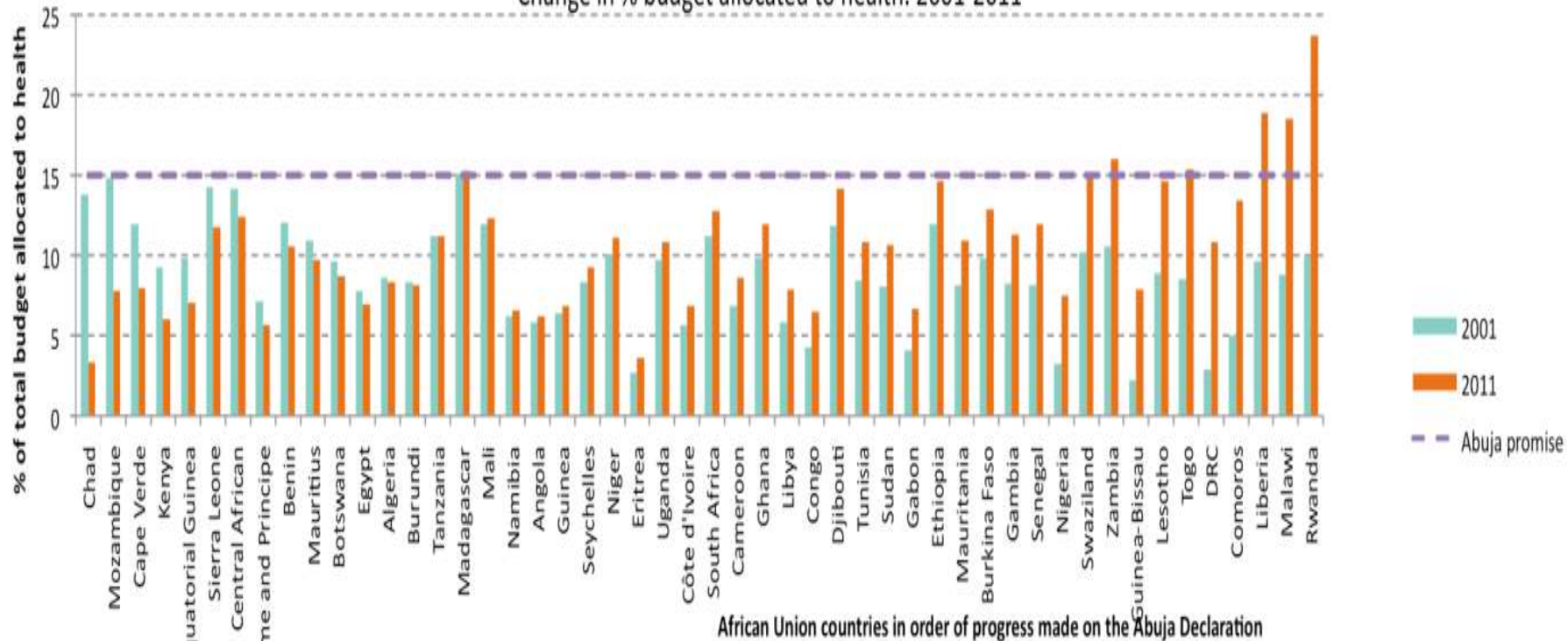
Primary Health

30,098

Inadequate Funding of Healthcare

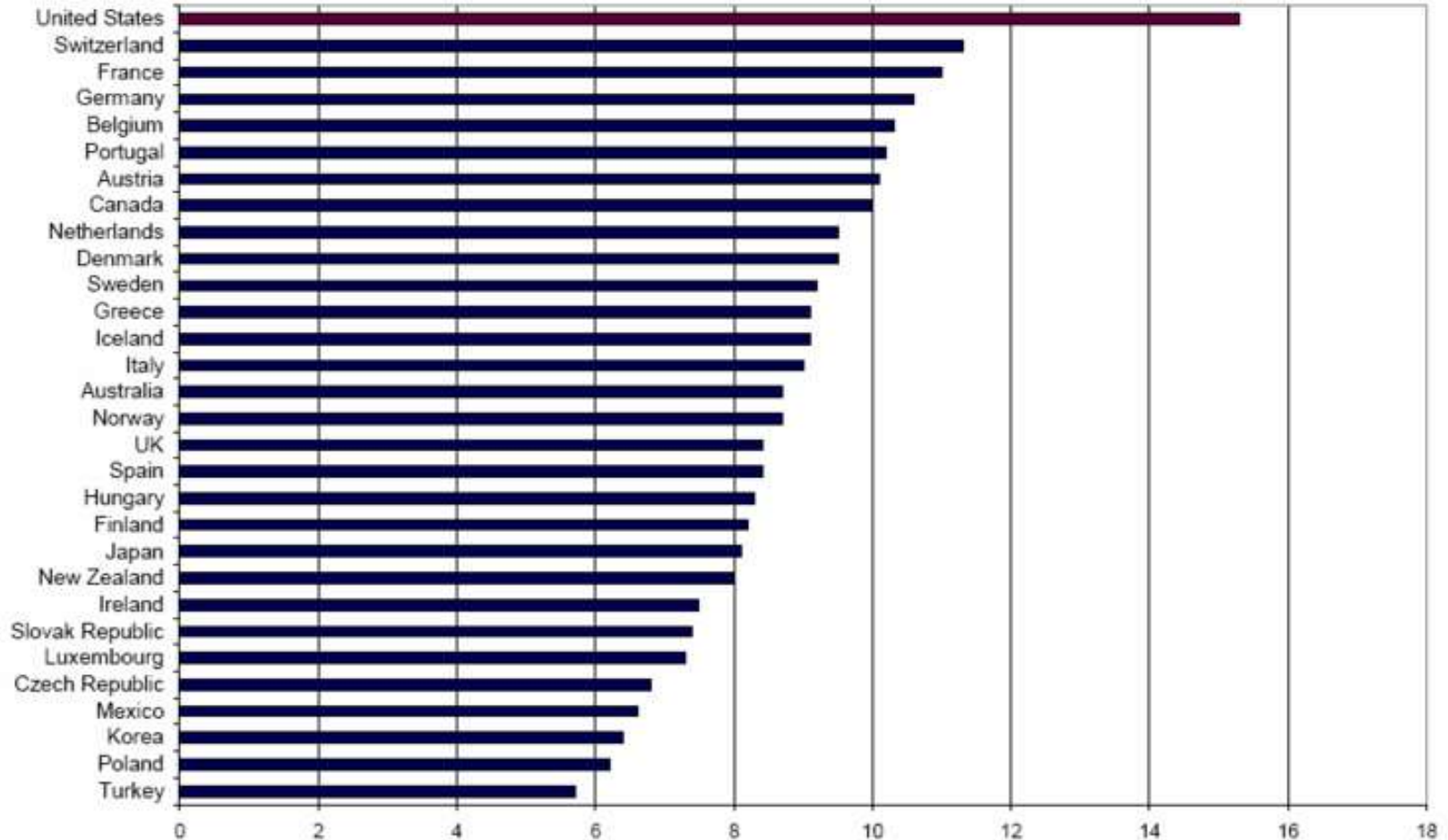
African Union countries show mixed progress in achieving the Abuja promise

Change in % budget allocated to health: 2001-2011



Health Care Spending By Nations

Healthcare Spending as % GDP

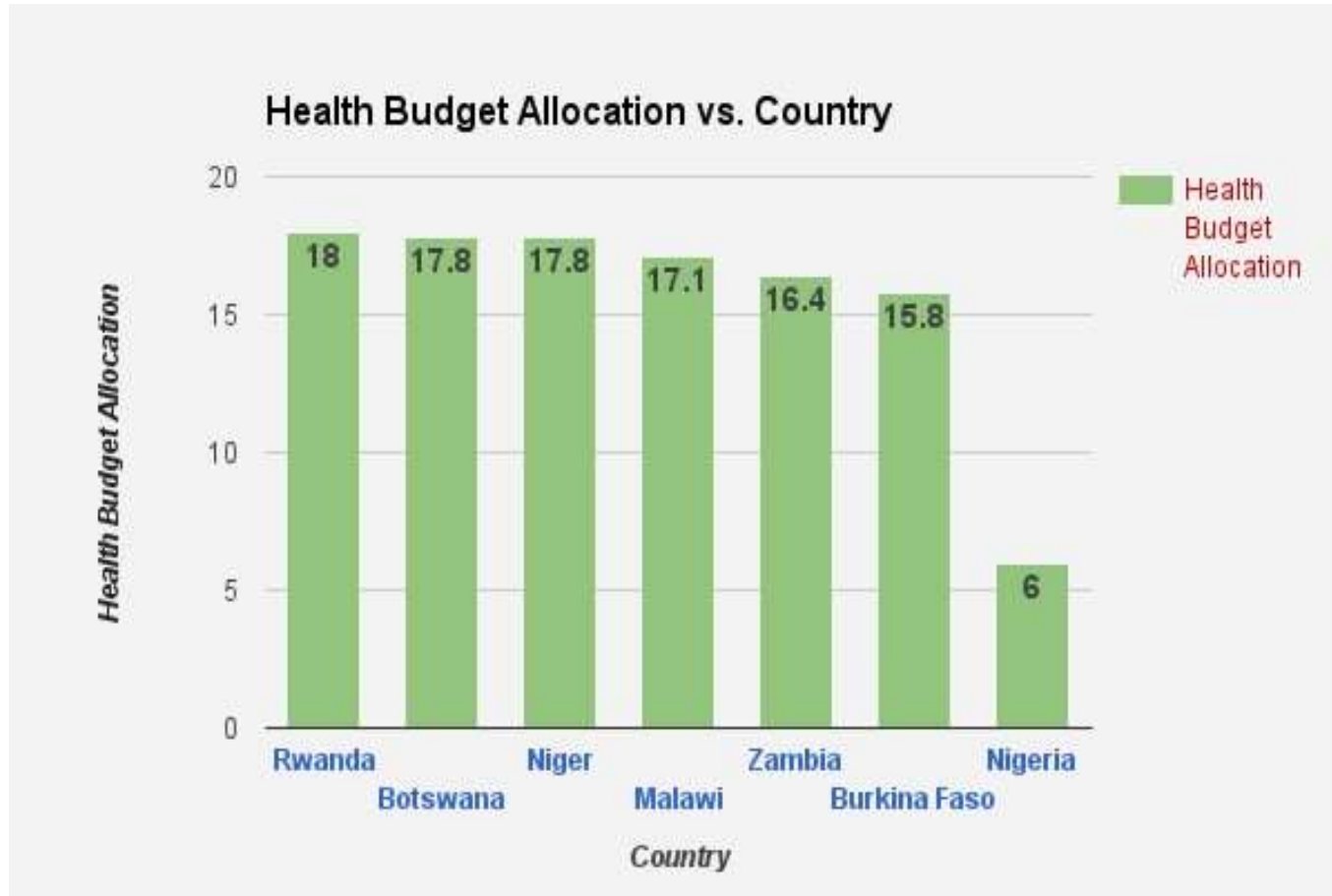


Source: Organization for Economic Cooperation and Development, OECD Health Data, 2008 (Paris: OECD, 2008).

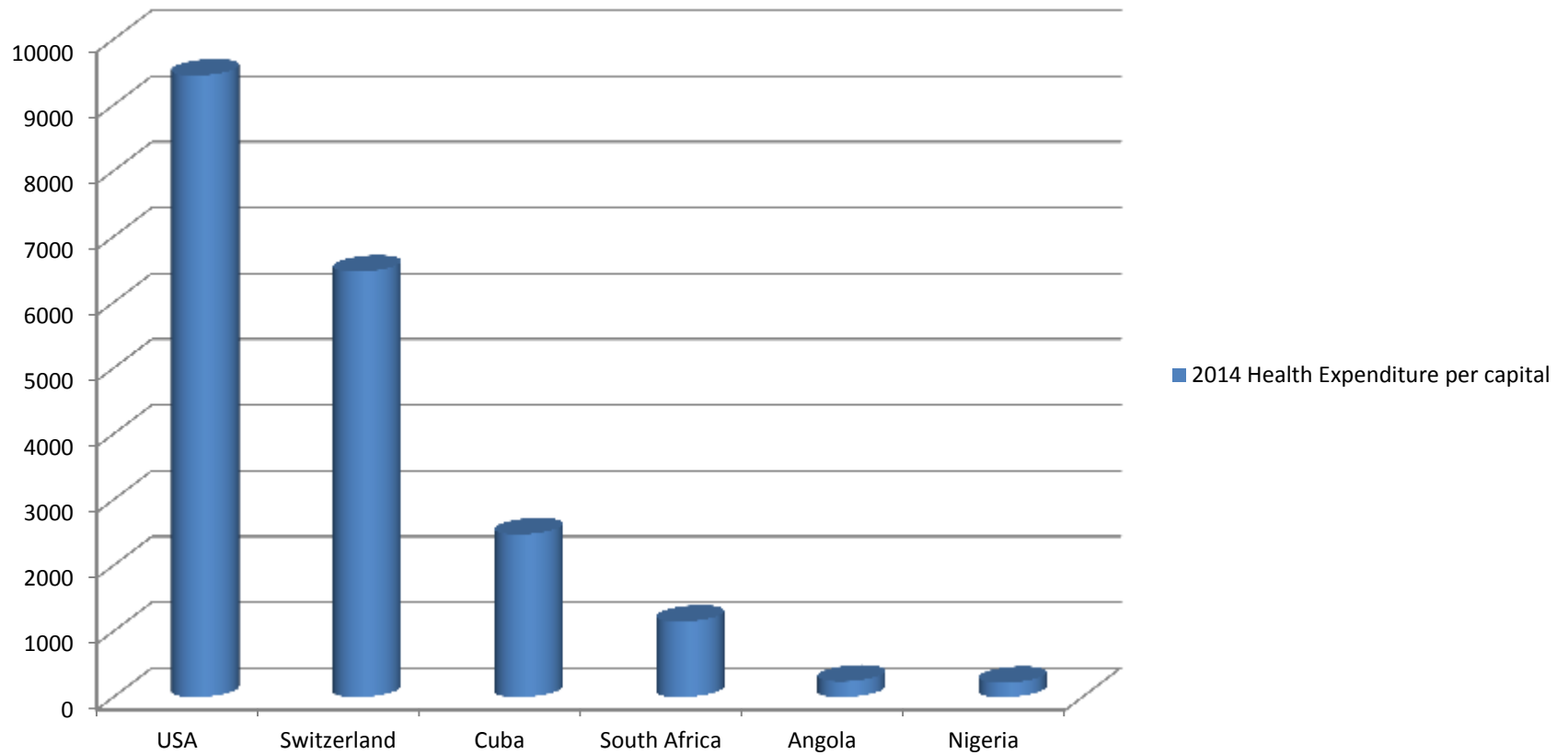
Note: For countries not reporting 2006 data, data from previous years is substituted.

#262 billion health budget in 2016

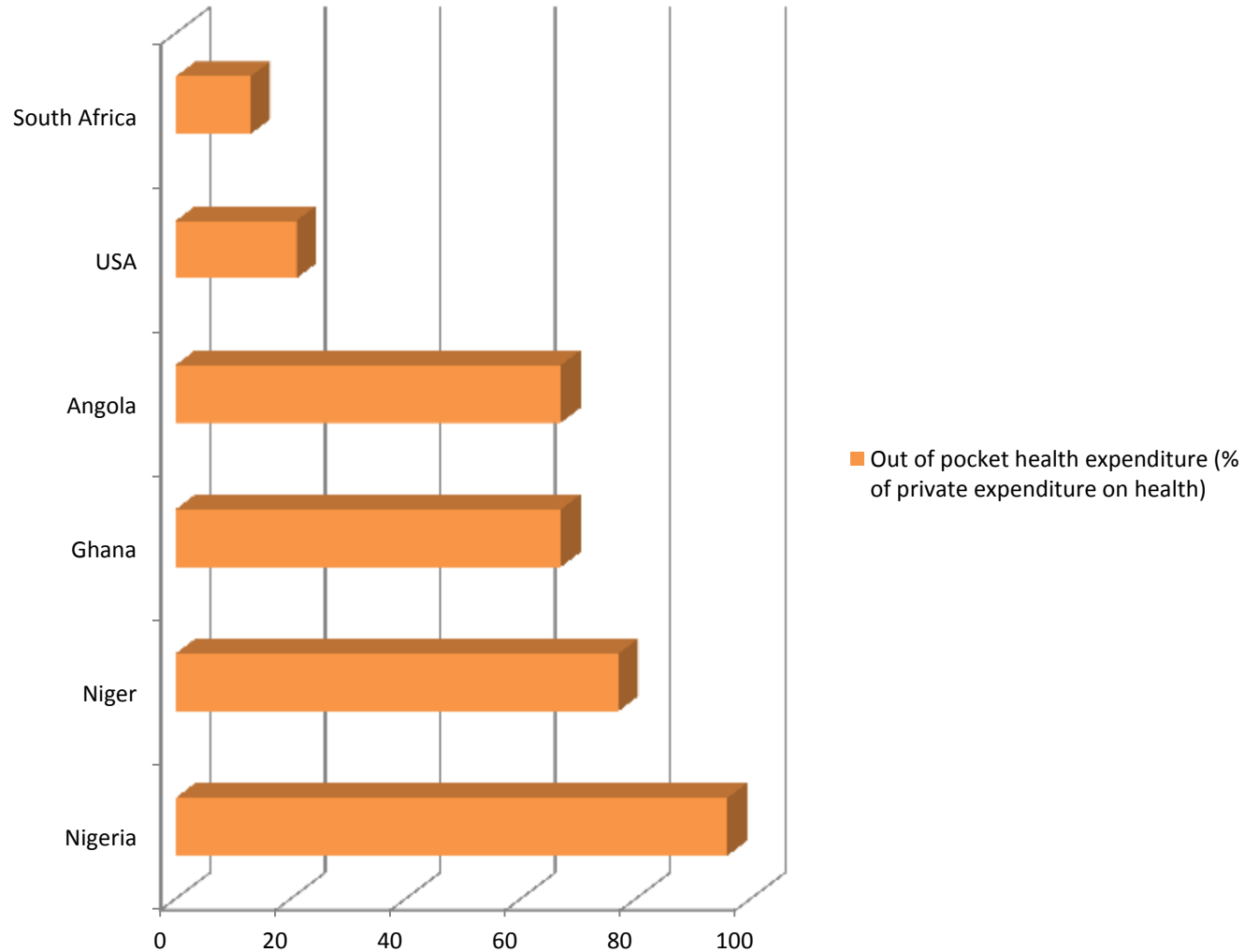
6% of budget



2014 Health Expenditure per capital



Out of pocket health expenditure (% of private expenditure on health)



High Cost of Medical Equipment and Pharmaceutical Products

- The astronomical cost of equipment and pharmaceuticals contributes to the high cost of healthcare delivery
- In 2013, equipment was \$154 million and it is projected will soar to \$227million by 2018.
- Lack of local technical expertise to maintain major medical equipment
- Breakdown or glitches require staff has to be flown down from outside the country at astronomical prices.

Impact of Power Outages

- 40% of the households are connected to the electricity grid; power outage 60% of the time
- Outages put lab reagents and vaccines at risk.
- Human suffering due to equipment malfunction and outages cannot be quantified in pecuniary terms.

Cost of Medical Tourism

- Another area of waste in our healthcare system is the cost associated with medical tourism.
- Nigeria annually spends about \$1 billion on medical tourism in India, Egypt, and Dubai, UK
- The affluent among us seek medical care abroad, leaving behind poorly-funded government hospitals that are characterized by incessant strikes by healthcare professionals, dilapidated infrastructure, and dearth of state of the art equipment

National Healthcare Insurance Scheme (NHIS)

- NHIS is the only viable pathway to improve our dismal health statistics and health indicators;
- Launched in 2005 by Professor Lambo
- **Delay in the Implementation**
- Target of ten years to achieve universal coverage
- Only 5% of the population covered as 2015
- Rwanda has 90% coverage
- **Lack of awareness of the benefits they stand to gain**
- Aggressive nationwide campaign needed

Endemic Corruption

- Nigeria ranked 143 out of 183 most corrupt countries (2011 Transparency International Report)
- Bribery of health workers, regulators and public officials, unethical research, diversion/theft/over pricing of medicines and medical supplies, fraudulent or over billing for health services, absenteeism, informal payments, and embezzlements.
- Officers misuse discretionary powers to license and accredit healthcare facilities.
- Embezzlement and fraud within federal and state ministries of health reduce allocation for salaries.
- Corruption impedes efficient healthcare delivery and contributes to the overall poor quality of care and the low morale among health workers.

Incessant Labor Strikes & Inter-Professional Conflicts

- Nigeria healthcare system is constantly beset by industrial actions by health professionals agitating for better conditions of service
- Untold hardship, sufferings and death of many patients across the nation
- Ethically, lockout is reprehensible because it is against the "First, do no harm" tenet of the Hippocratic Oath
- Health professionals are constantly feuding; each profession sees the other as the enemy and threat seeking to usurp the rights of others.
- The result is lack of genuine collaboration in patient care and a major clog in the wheels of the Nigerian healthcare system

Poorly Developed Emergency Response System

- Poorly developed emergency service network.
- Inadequate ambulances and poorly trained manpower.
- Well-equipped ambulances are privately-owned; provide care only to those who can afford to pay
- A disconcerting aspect of our national life is the fact that an **average educated Nigerian does not have the basic first-aid knowledge and CPR skills.**
- Consequently, when attempting to save life, many of the volunteers do more damage to the patient.

Ineffective Leadership at Health Ministry

- According to many pundits (Tam 2017, Nasir El-Rufai, 2015), Profs. Kuti and Lambo widely acclaimed performance in their role
- Other physicians in the corridor of power who were catapulted into the position because of their political influence have no tangible record of achievement.
- A good knowledge of medicine and being an excellent physician does not often translate into effective leadership in steering the ship of the nation's healthcare system.
- We desperately need **uncompromised leaders with excellent management and strategic planning experiences** that will address the multi-faceted challenges within the healthcare system.

PART III

The Case for a Paradigm Shift in the Education of Healthcare Professionals in Nigeria

The significance of the College/Faculty Nomenclature and Academic program Location

- 37 universities offer health sciences
- 19 (51%) bear a name that is exclusive to medicine (College of Medicine),
- 18 (49%) bear names that are inclusive (College of Health Sciences/College of Medicine & Health Sciences).
- “College of Medicine” or University of Medical Sciences” puts the other health professionals in that work environment on notice that they are *persona non grata* in their own institution
- Politically correct and encompassing name = /University/College/Faculty of Health Sciences

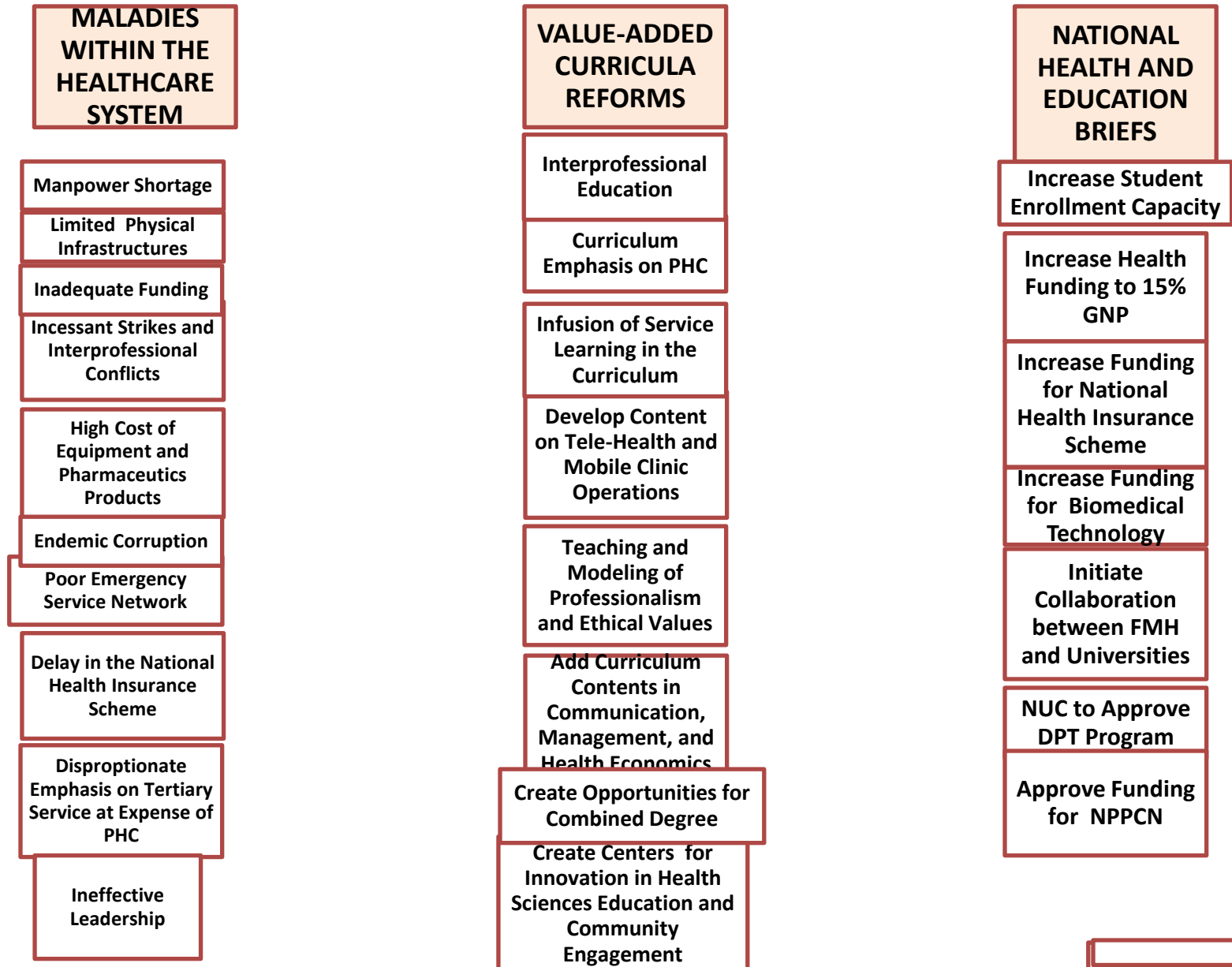
Location of Health Programs

- Med Lab technology, optometry and nutrition and dietetics are offered in the Faculties of Science and Agriculture
- Interprofessional collaboration not feasible in such settings
- Health professions have unique ethos and language of communication that are assimilated within the clinical/hospital setting.
- Therefore, educating health professionals in settings other than the Faculties of Medicine and Health Sciences is antithetical to contemporary health educational practice around the world.
- This is a quality control issue that the NUC should address with the institutions concerned

Conceptual Framework for my Proposals

- Healthcare system is our laboratory and platform to test our ideas and hone our clinical skills.
- Curriculum of all health professions must be responsive to finding meaningful solutions to the challenges within the healthcare system.
- Maladies over the years have inhibited innovation while breeding inefficiency and increasing the cost of healthcare.
- Proposed model embodied policy recommendations and value-added educational contents that can be infused into the existing curriculum of each health professions

Organogram for the Health Professions' Education Paradigm



Interprofessional Education (IPE) Philosophy

- Inter-professional conflict is at an all-time high; besieged with disharmony and court cases
- NUC curriculum mandated professionalism, ethics, health economics, management & CAM.
- Also recommended multidisciplinary teaching method in medical and dentistry education.
- A step in the right direction, but short of the interprofessional education (IPE) method which is the contemporary (cutting edge) thinking in health sciences education around the world
- Differences between multidisciplinary and IPE ?

Multidisciplinary Vs. Interprofessional

- Multidisciplinary education is the process of combining students from several professions in learning a topic or content within an educational format, but there is **no active collaboration** between the students from the different professions.
- Interprofessional education (IPE) occurs when students from two or more professions **learn with, from and about each other** to improve collaboration and the quality and effectiveness of healthcare.
- IPE is **student-centered learning** which breaks down the artificial barriers that exist in the education setting.
- Infusion of IPE in the curricula will decrease stereotyping and improve the quality of communication and **may go a long way in sanitizing the health sector.**

Community Engagement through Service Learning

- Integration of of service learning (SL) into the curriculum of all health professions
- SL extends learning beyond the four walls of the traditional classroom by providing students with **structured** service projects that meet the needs of the community.
- SL allows students to utilize their clinical skills, develop their critical thinking and leadership abilities and, most importantly, affording students opportunities for **group reflection** on what was learned during the field learning experience
- Participate with community partners and service recipients that will help **address some of the identified ills within our healthcare system**

Examples of SL Activities to Address Maladies

- Provide primary healthcare to the economically disadvantaged and rural dwellers
- Teach CPR/First-Aid to university and high school students to create an army of competent emergency responders
- Aggressive campaign to increase awareness of the benefits of universal healthcare
- Implement health promotion and wellness programs
- Mass immunization campaign against vaccine-preventable diseases that are still prevalent
- CPR/First-Aid should be made part of the general/health education requirement in high school and in the university.

Strong Commitment to Primary Health Care Curriculum

- More emphasis should be given to primary healthcare within the curriculum
- Primary healthcare curriculum (PHCC) has been integrated, with positive outcomes, in medical and nursing curricula by having students and faculty working simultaneously to provide primary healthcare services to their local communities, particularly among economically disadvantaged and rural dwellers (Arthura et.al 2007; Rahim etc. 1987).
- If PHCC is adopted by all health professions it will address the ambulatory services need of the rural dwellers.

Tele-Health and Mobile Health Clinic

- Given the underfunding of healthcare, the national government needs to explore aggressive cost control measures.
- Will reduce the need to build new hospitals and clinics
- Tele-health is the delivery of healthcare remotely by means of telecommunications technology and mobile health clinics
- Couple both with use of community health workers will further reduce staffing costs.
- Create a culture of health
- Students should be trained to acquire skills in E-health technology and mobile clinic operations

Teaching & Modeling of Professionalism & Ethics

- Curriculum should be revamped to include professionalism, ethics and values to modulate corruption.
- Teaching and modeling strategies should be adopted to convey the core values associated with professionalism: accountability, altruism, compassion/caring, excellence, integrity, professional duty, social responsibility, and ethical values.
- Lectures on the attributes of professionalism and ethics, Hippocratic Oath, and the Code of Conduct of the profession reinforced by case studies
- Secondly, the faculty members must also model appropriate professional behaviors

Develop Combined Degree Options to Prepare Future Leaders Who will Manage Our Healthcare System

- Criteria for Minister of Health: Nominee must possess outstanding temperament, excellent communication skills, and conflict/strategic management skills.
- Curriculum must include contents on communication, team dynamics, conflict resolution, management and health economics.
- Offer dual degree options to allow health professional students acquire advanced knowledge and skills in health economics and health administration
- (MD/MBA or MHE; Ph.D./MBA or MHE; or Ph.D. Health Economics).

National Health Policy Recommendations

- Adequate healthcare financing is critical in order to achieve universal coverage.
- Allocation to health should be increased to 15% in line with the 2001 Abuja Declaration.
- Nation is hit hard by continuing brain drain as a result of limited career opportunities and poor remunerations
- Reduce medical tourism by incentivize Diaspora health workers to come home to practice

To stem the colossal cost of equipment

- Need to train local technical experts to repair the major medical equipment
- **The biomedical technology/engineering departments in our universities should be upgraded and funded to allow them find ingenious solution to our equipment needs**
- Examples of ingenious locally produced equipment abound: the *SureVent transport ventilator* used for pre-hospital patient cost only \$700 vs. \$30,000 for imported ventilator.
- *Embrace infant baby warmer* used to keep newborn infants warm for hours only cost \$200 compared to the conventional baby incubator which cost over \$50,000

National Education Policy Recommendations

- To address manpower shortage in the health sector, do we need to establish more medical schools?
- New schools will require a colossal amount of funds for personnel and the physical facilities
- Given the current economic climate, my recommendation will be to **increase funding to the existing schools to enable them increase student enrollment and promote resource development**

PART IV: Repositioning this University to Assume the Leadership Role in Fostering Health Sciences Education in Nigeria

- I'd like to pay tribute to your hero, Professor Adesanya T. Grillo.
- Also construct the commonalities on the evolution of this university and OAU
- **45 Year Child Born at Ife now Re-claimed by the NUC: Lessons from Ife**

Ife Legacies

- Ife pioneered **primary healthcare** emphasis curriculum
- Adopted **BS degree** as the entry requirement into the clinical year of its medical and dentistry education.
- Jettisoned the **artificial division** created between preventive and curative medicine and questioned the rationale for laying undue emphasis on hospital development at the expense of rural health services
- 45 years after Ife introduced its BSc Health Science degree program as a prerequisite into the medical and dental programs, a move that was widely criticized at the time, is no longer controversial.
- Ife ideas became a **mainstream paradigm** that the NUC embraced in 2016 as sine qua non.

Lessons from Ife

- This university should use the lessons from Ife to **think “outside the box”** and reposition itself to become a world-class university known for innovation.
- Given your position in history as the first and only university in Nigeria devoted to health sciences education, I believe you have the **unique leadership responsibility** to bring about fundamental changes in health sciences education in Nigeria.
- This university can make history by creating **a distinct identity that will provide competitive edge** over the other medical schools in Nigeria; develop health sciences programs that are unique and in demand in the health sector. Permit me to offer a few suggestions.

Being #1!

- This young but promising university should create a niche for itself by being the **Center of Excellence for Medical Rehabilitation in Nigeria**
- It can position itself ready to be the **first institution of higher learning in Nigeria to offer the DPT program** once the proposal is approved by the NUC
- This university can be a **harbinger of good news** for the nation by developing a biomedical technology program.
- Develop entry-level education programs for the following disciplines not currently available in Nigeria but highly needed in our healthcare system: **audiology, medical sonography, speech-language pathology, medical social work, and rehabilitation counseling**

Actualization of Lecture Proposals: Create Two Centers

Center for Innovation in Health Sciences Education

- Think tank where local and international experts can come to engage in research and colloquium on the pedagogy of interdisciplinary education

Center for Community Engagement

- Epicenter for the coordination of service learning projects in this university.

Call to Action

- 2 lessons from Ife that must always be borne in mind are:
 - Innovative idea must never be abandoned, again!
 - Need for ongoing evaluation and recalibration of all the professional curricula to detect problems early arising in the healthcare system and resolve them before they fester.
- **Convene a national conference to discuss the future of health sciences education in Nigeria**
- To test the applicability of the proposals enunciated in this lecture.
- It is my hope that the ideas contained in this lecture can lead to a transformational change that will make the nation's healthcare system the pride of place in the world that it craves for.

Farewell

- Closing with Harriet Tubman: “Every great dream begins with a dreamer. Always remember, you have within you the strength, the patience, and the passion to reach for the stars to change the world.”
- Mr. Vice-Chancellor and all the stakeholders of this university, I appreciate the opportunity you have afforded me on this august occasion to present this lecture.
- I had fun preparing and delivering this lecture and I thank you for your rapt attention.
- God bless the Federal Republic of Nigeria!