



THE MEDICAL REHABILITATION THERAPISTS BOARD OF NIGERIA



INTERNATIONAL CONFERENCE OF MEDICAL REHABILITATION PROFESSIONALS (ICMRP) 2017

With



Prof. Emmanuel B. John

PT, DPT, PHD, MBA

Guest Speaker

THEME:

**"Medical Rehabilitation Services
in Community & Primary Health Care
in Nigeria and Sub-Sahara Africa"**

**DATE:
20th - 22nd
SEPTEMBER
2017**



**CHAPMAN
UNIVERSITY**

Medical Rehabilitation Services in Community and Primary Health Care in Nigeria and Sub-Sahara Africa

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Protocols

- The Honourable Minister of Health
- His Excellency, The Governor of Lagos State
- Her Excellency, 1st Lady of Lagos
- The Honourable Commissioner of Health
- The Registrar & CEO, MRTRB
- The Guest Speaker
- Distinguished Colleagues
- Ladies and Gentlemen

Lecture Outline

- Crisis in Medical Rehabilitation
- The Role of Medical Rehabilitation Professionals in the Healthcare System
- Current Medical Rehab Model of Interventions
- Future Directions in Medical Rehabilitation
- Implications for Education of Medical Rehabilitation Professions
- Implications for Government Policies
- Resolving the Crisis in Medical Rehabilitation

Main Objective

- Resolving the current crisis in access and provision of Medical Rehabilitation Services to Nigerians

Congratulations MRTB!

- Hearty congratulations to the Medical Rehabilitation Therapists (Registration) Board of Nigeria!
 - Happy Silver Jubilee Anniversary!!!
- Coincidentally, you have two Guest presenters today who happen to be part of the pioneering physiotherapy interns (1994-1995); Professor Akinwuntan, and humble self
 - You will also have Professor T. Kolapo Hamzat, another pioneer intern chairing one of the plenary sessions
 - Recognize Pioneer Interns: Pls stand if interned 1994-1995

The MRTB!

- History was made on Tuesday, December 29, 1992 when the then Honourable Minister of Health, Late Professor Olikoye Ransome-Kuti inaugurated the Medical Rehabilitation Therapists (Registration) Board of Nigeria



The MRTB!

- The MRTB was established by decree 38 of 1988 now Act M9 LFN 2004 for the regulation and control of training and practice of the following Medical Rehabilitation Professions:
 - **Physiotherapy**
 - **Occupational Therapy**
 - **Speech Therapy**
 - **Clinical Audiology**
 - **Osteopathic Medicine**
 - **Chiropractic Medicine**
 - **Prosthetic & Orthotic**



BREAKING NEWS

There is a Medical Rehabilitation 'Crisis'
in Nigeria and Sub-Sahara Africa!

There is a Medical Rehabilitation ‘Crisis’ in Nigeria and Sub-Sahara Africa

- A crisis is:
 - Any event that is going to lead to an unstable and dangerous situation affecting an individual, group, community, or whole society
 - Wikipedia
 - An unstable or crucial time or state of affairs in which a decisive change is impending; or a situation that has reached a critical phase
 - Webster Dictionary (WD)

There is a Medical Rehabilitation 'Crisis' in Nigeria and Sub-Sahara Africa

- How did we get into a 'Crisis' state in the provisioning of Medical Rehabilitation services in Nigeria and Sub-Sahara Africa?
- Well...it is not primarily a 'sin of commission'
- Then...what is it?

There is a Medical Rehabilitation 'Crisis' in Nigeria and Sub-Sahara Africa

- The crisis today in Medical Rehabilitation in Nigeria and Africa is an 'act of omission', but:
- It has the potential to become a 'sin of commission', if concerted efforts to point out the omission, is
 - Continually ignored
 - Met with deafening silence, or inaction or in fact
 - If there is a deliberate attempt to keep or maintain the 'act of omission' status quo

Medical Rehabilitation 'Crisis' in Nigeria and Africa: Why The Omission?

- Nigeria and other African Countries for decades were plagued by communicable diseases leading to excessive mortality rates across the continent
 - Nigerians and fellow Africans were dying in hundreds of thousand, and millions yearly due to deadly diseases in childhood, HIV/AIDS, pre and perinatal, hunger, wars, and many other public health mortality and morbidity, etc

Medical Rehabilitation 'Crisis' in Nigeria and Africa: Why The Omission?

- The WHO, UN, World Bank, Governments around the world, including Federal Government of Nigeria, Private Foundations, NGOs, and many groups and individuals rallied to attack the killer scourges in Nigeria and Africa
- And today, mortality and morbidity from many of these deadly diseases, mostly communicable diseases (CD) have significantly reduced mortality
 - There is still a lot of work to do though...

Medical Rehabilitation 'Crisis' in Nigeria and Africa: Why The Omission?

- Because of the Epidemic of mortality from deadly diseases;
 - Previous focus on CDs, led to development of, and capacity building of Health Care Systems and Professions in Nigeria and Africa, who are in the first line of fighting the killer scourges:
 - Medicine & Surgery, Dentistry, Pharmacy, Nursing, Medical Laboratory Technology, Imaging Professionals
- A lot of funding and capacity building went into these 'privileged' health professions, and their sector of the Nigerian health care system
 - Why? The priorities was/is to stop mortalities in Nigeria and Africa
 - Good News: Efforts paid off so far, and getting better, though more work need to be done.....

Medical Rehabilitation 'Crisis' in Nigeria and Africa: Why The Omission?

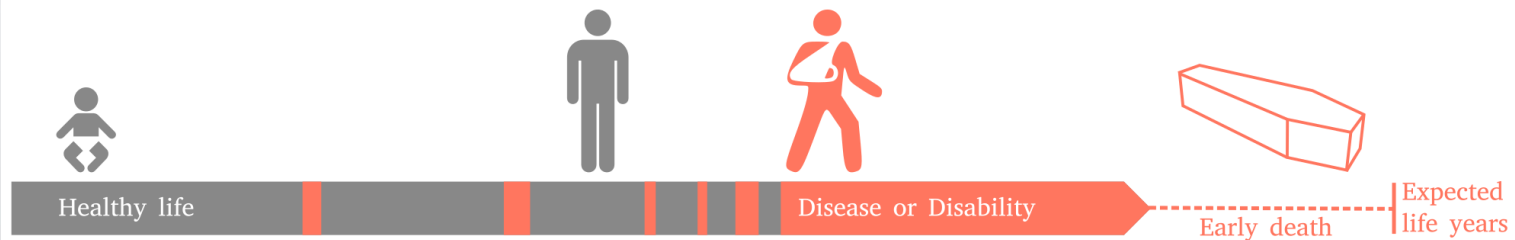
- However, now that more people were saved from dying, their quality of life are impacted by the residue and devastation of disease and injuries; Disability leads to poor DALY figures

DALY

Disability Adjusted Life Year is a measure of overall disease burden, expressed as the cumulative number of years lost due to ill-health, disability or early death

$$= \text{YLD} + \text{YLL}$$

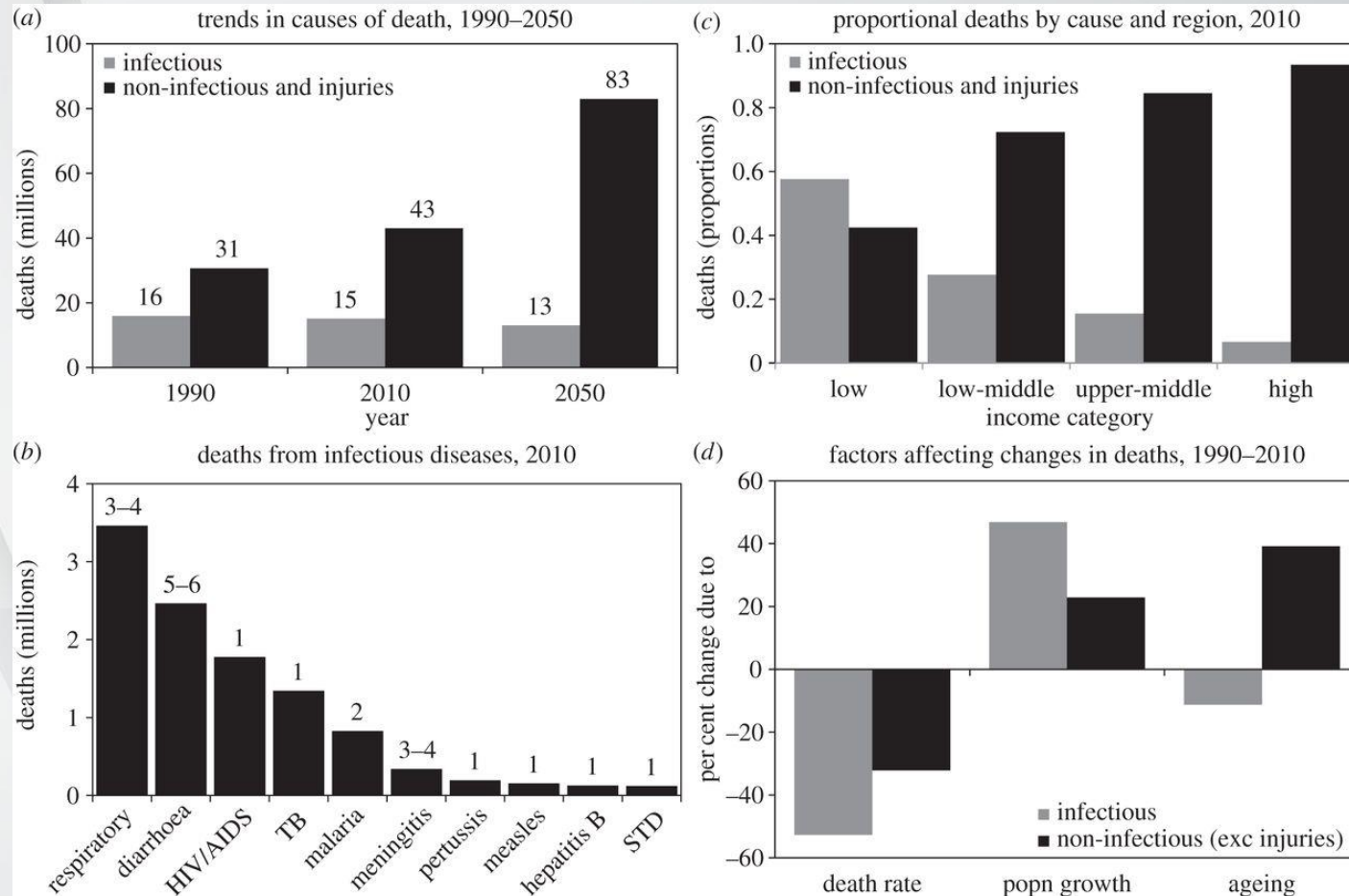
Years Lived with Disability + Years of Life Lost



Medical Rehabilitation 'Crisis' in Nigeria and Africa: Why The Omission?

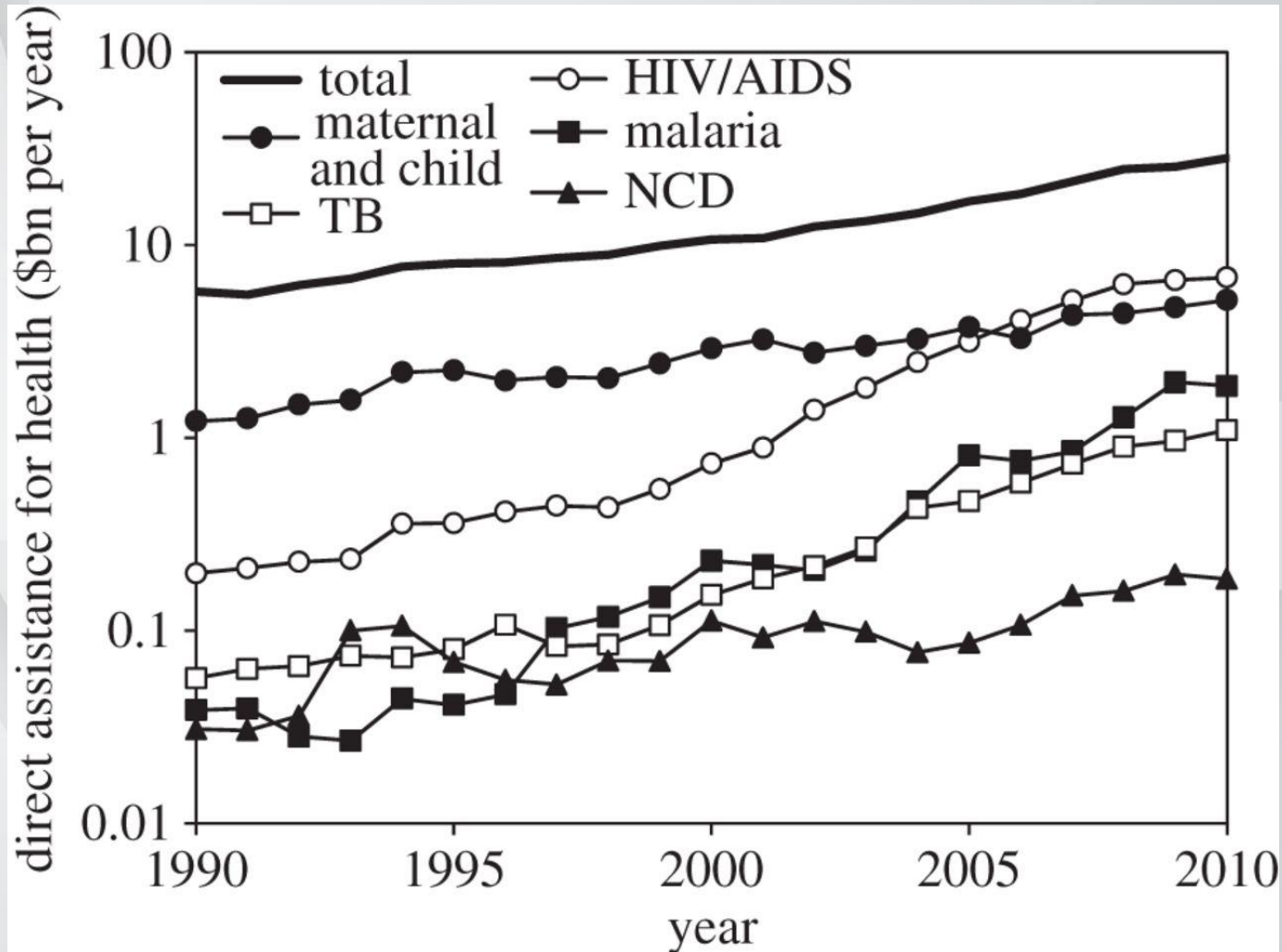
- We now have terrible DALY figures and an increase in Non-Communicable diseases where Medical Rehabilitation Professionals (MRPs) are most relevant
- For several decades, MRPs are the 'forgotten' sector of the health care systems in Nigeria and Africa

Dye (2014): After 2015: infectious diseases in a new era of health and development



Deaths from infectious diseases (plus maternal and nutritional disorders) and non-infectious diseases (including injuries) worldwide, 1990–2050. (a) Estimated deaths in 1990, 2010 and 2050. (b) Top 10 causes of death from infectious diseases in 2010. Figures above the bars are the numbers of pathogens causing the majority of deaths from each disease. (c) Proportion of deaths due to infectious and non-infectious diseases in low, low-middle, upper-middle and high-income countries in 2010 (World Bank classification). (d) Factors affecting percentage changes in the numbers of deaths worldwide, 1990–2010. The fall in death rates *per capita* (left) is offset by population growth (especially deaths from infectious diseases, centre) and ageing (especially deaths from non-infectious diseases, right).

Trends in direct financial assistance for health, 1990–2010, measured in US\$ billions per year (log scale), with five of the principal areas of investment.



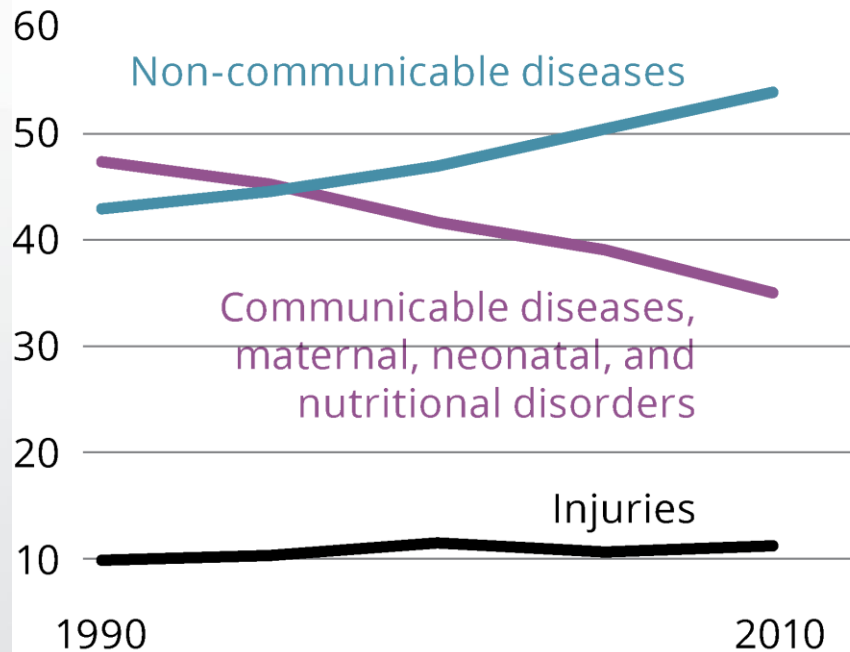
Christopher Dye Phil. Trans. R. Soc. B 2014;369:20130426

Medical Rehabilitation 'Crisis' in Nigeria and Africa: Why The Omission?

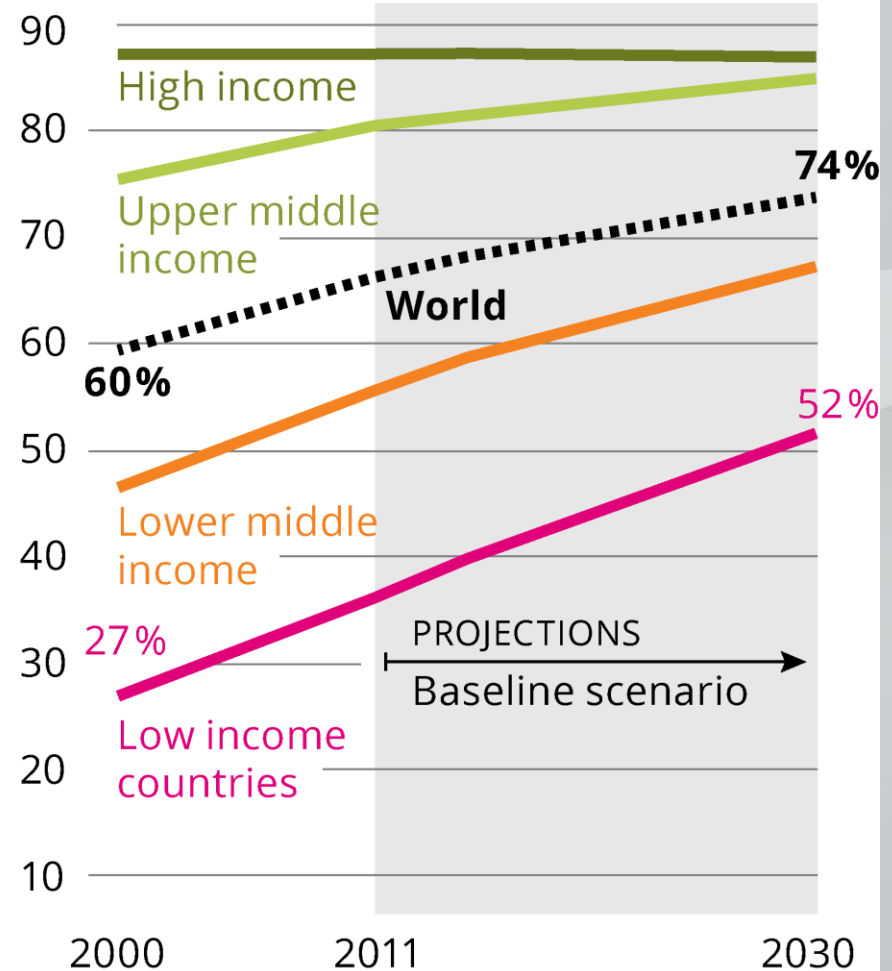
- Medical Rehabilitation professionals and their Sector of the Health Care System have been 'omitted' from funding priorities of their Health System and MR Professionals development and capacity building priorities in Nigeria and Sub-Sahara Africa
- In fact, in the 'eye' of many in the 'privileged' Health Care Professions, MRPs are not really needed nor relevant, until they or their family members have an NCD, such as a stroke, requiring Medical Rehabilitation Services

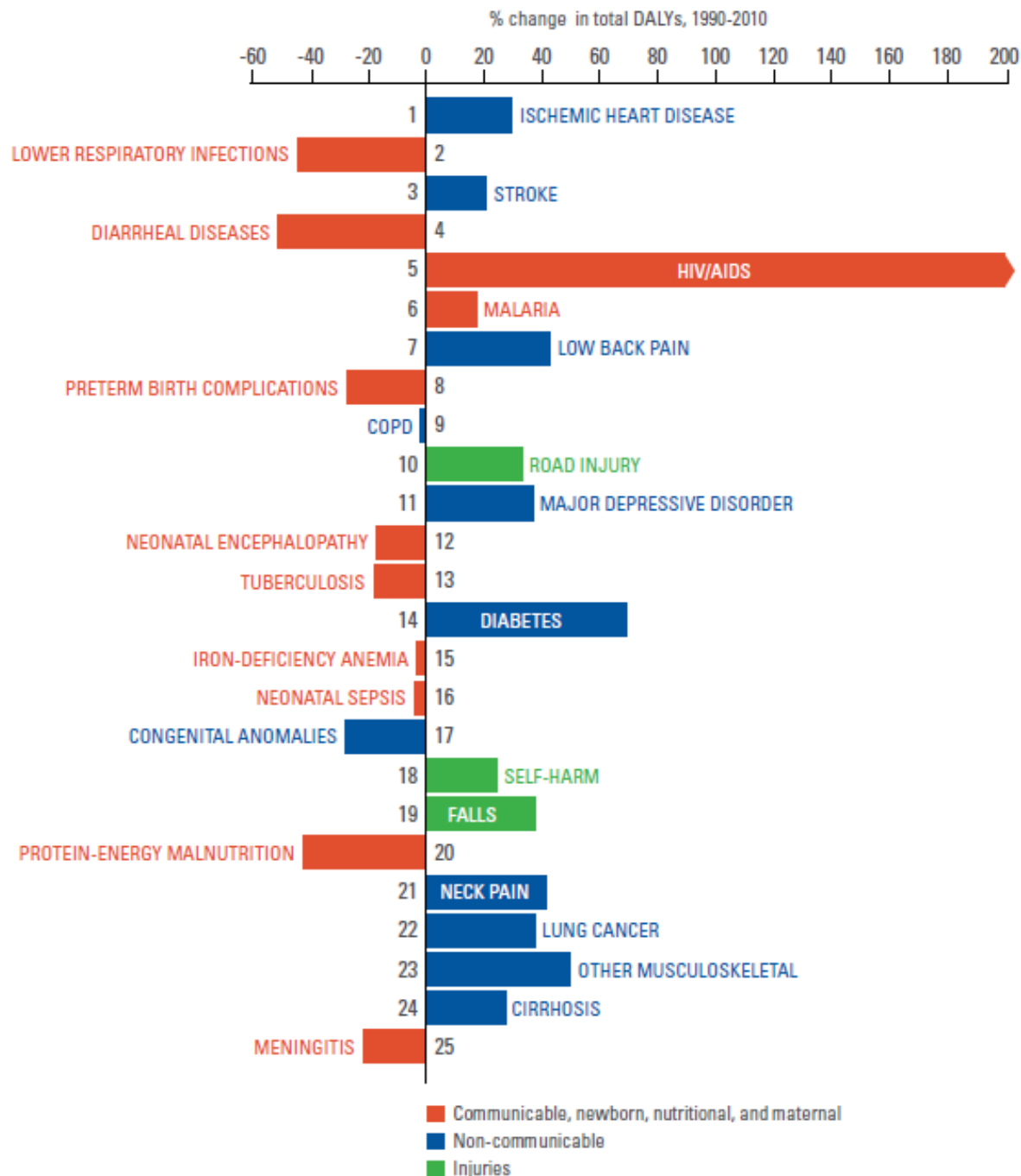
The shift in global disease burden, and share of non-communicable diseases by world regions – European Environment Agency

Loss of healthy life years
(in percentage of total DALY)



Deaths related to non-communicable diseases
(in percentage of total deaths)

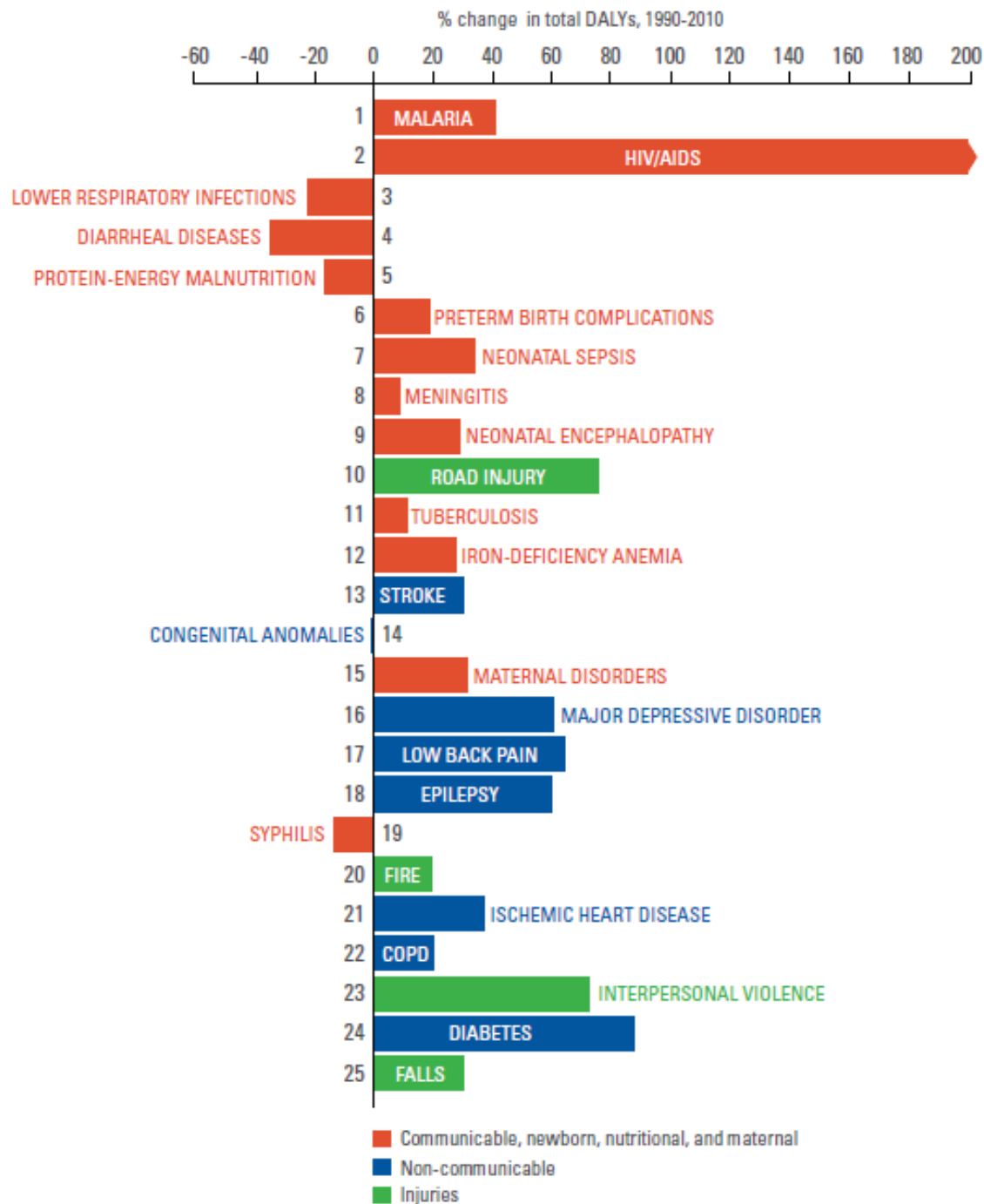




Global shifts in leading causes of DALYs, 1990-2010 – Global Burden of Disease Report for Sub-Sahara Africa, WHO, 2013

Note: The leading 25 causes of Disability-Adjusted Life years (DALYs) are ranked from top to bottom in order of the number of DALYs they contributed in 2010. Bars to the right of the vertical line show the percent by which DALYs have increased since 1990. Bars on the left show the percent by which DALYs have decreased. Pointed arrows indicate causes that have increased by a greater amount than shown on the x-axis.

The role of Medical Rehabilitation Professionals in managing disability and improving DALYs cannot be over-emphasized

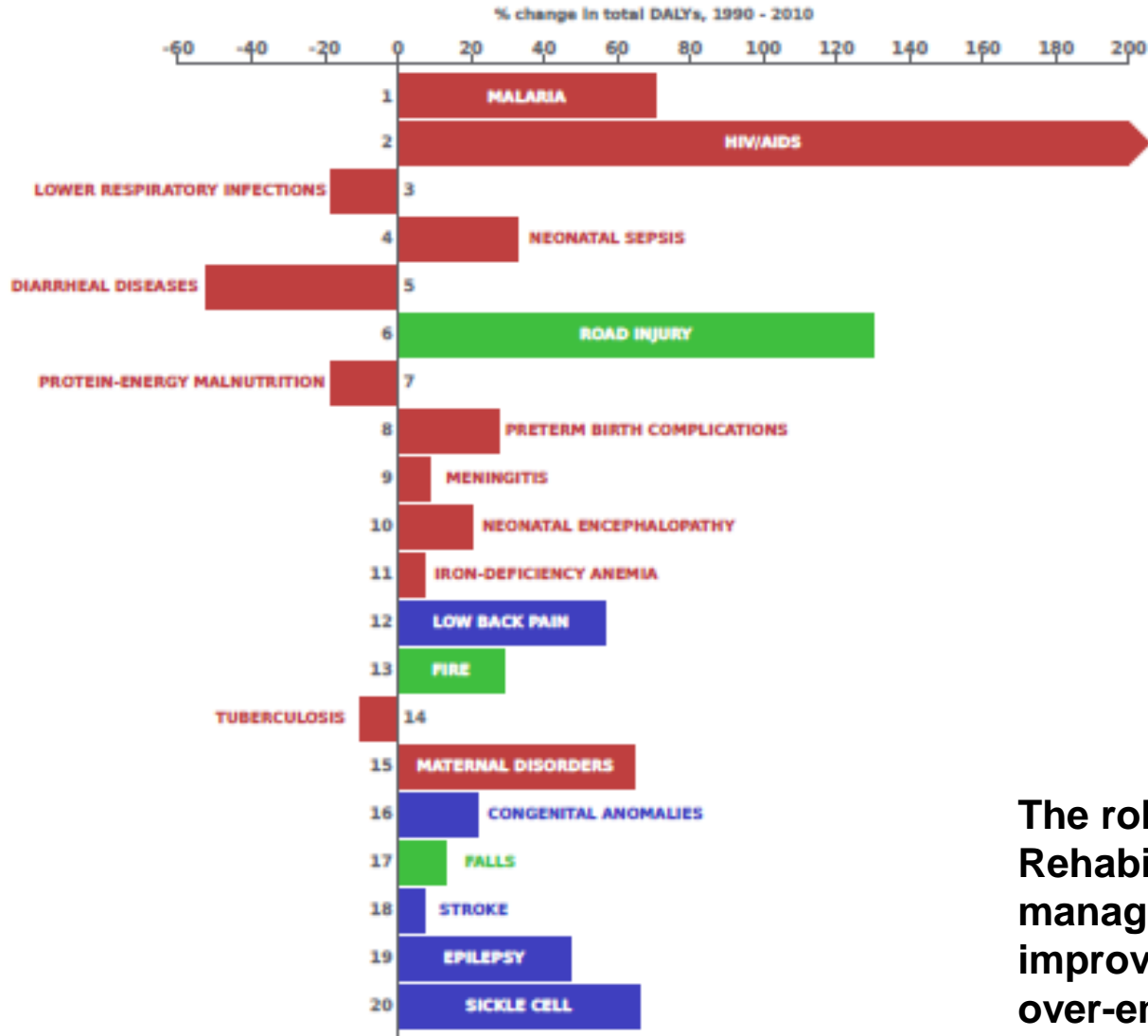


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Shifts in leading causes of DALYs in Nigeria, 1990-2010



The role of Medical Rehabilitation Professionals in managing disability and improving DALYs cannot be over-emphasized



The role of Medical Rehabilitation Professionals in managing disability and improving DALYs cannot be over-emphasized: Note; **1 = Best DALYs; 19 = Worst DALYs**

Medical Rehabilitation 'Crisis' in Nigeria and Africa: Why The Omission?

- Some of the 'Acts of Omission' committed against the Medical Rehabilitation sector of the Nigerian Health Care System is due in part to ignorance of its importance and place in the Healthcare System
 - Being first line of defence against deadly disease does not equate, ONLY line of defence
 - Look at our Military.....every Corp is important but each has different roles and functions
- Now let's take a quick look at what is Medical Rehabilitation:

Medical Rehabilitation & Habilitation

- The WHO in its 2011 World Report defined Rehabilitation as:
 - *“a set of measures that assist individuals who experience, or are likely to experience disability, to achieve and maintain optimal functioning in interaction with their environments”*
 - A distinction should be made between Habilitation, which aims to help those who acquire disabilities congenitally or early in life to develop maximal functioning; versus
 - Rehabilitation, where those who have experienced a loss in function are assisted to regain maximal functioning

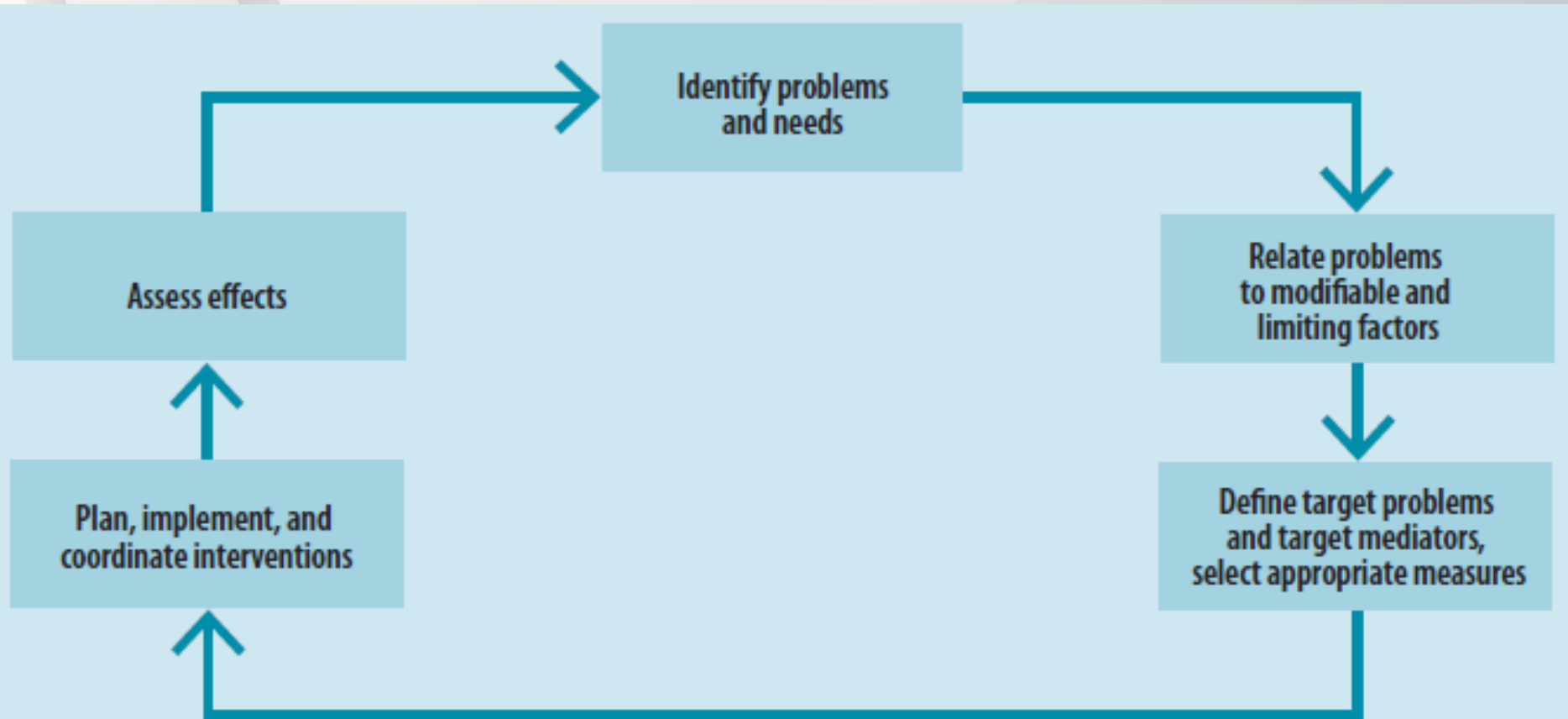
Medical Rehabilitation & Habilitation

- The United Nation's CRPD (Convention on the Rights of Persons with Disabilities) states in its Article 26, that the goal of Habilitation and Rehabilitation is to:
 - *“Enable persons with disabilities to attain and maintain maximum independence, full physical, mental, social, and vocational ability, and full inclusion and participation in all aspects of life.”*
 - <https://www.un.org/development/desa/disabilities/convention-on-the-rights-of-persons-with-disabilities/article-26-habilitation-and-rehabilitation.html>

Medical Rehabilitation & Habilitation

- The United Nation's CRPD (Convention on the Rights of Persons with Disabilities) states in its Article 25 (of which Nigeria is a signatory!), suggests that :
 - *People with disabilities should have the same access to the highest possible quality of health care and same choices and standards as others without disabilities in their country*
 - *More specifically, government officials will take action to make services accessible with attention to the different needs of men and women in health-related rehabilitation.....*
 - <https://www.un.org/development/desa/disabilities/convention-on-the-rights-of-persons-with-disabilities/article-25-health.html>

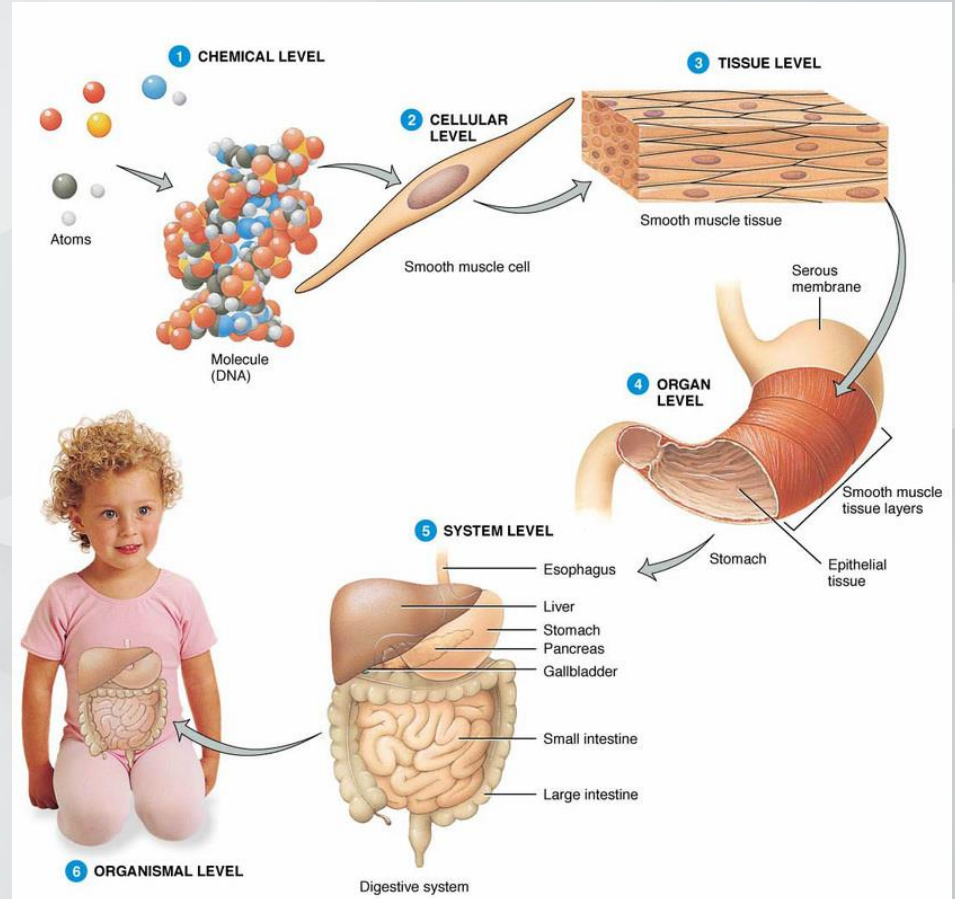
The Rehabilitation Process is a Continuum



WHO World Report on Disability and Rehabilitation (2011)

Organization of Human Organism

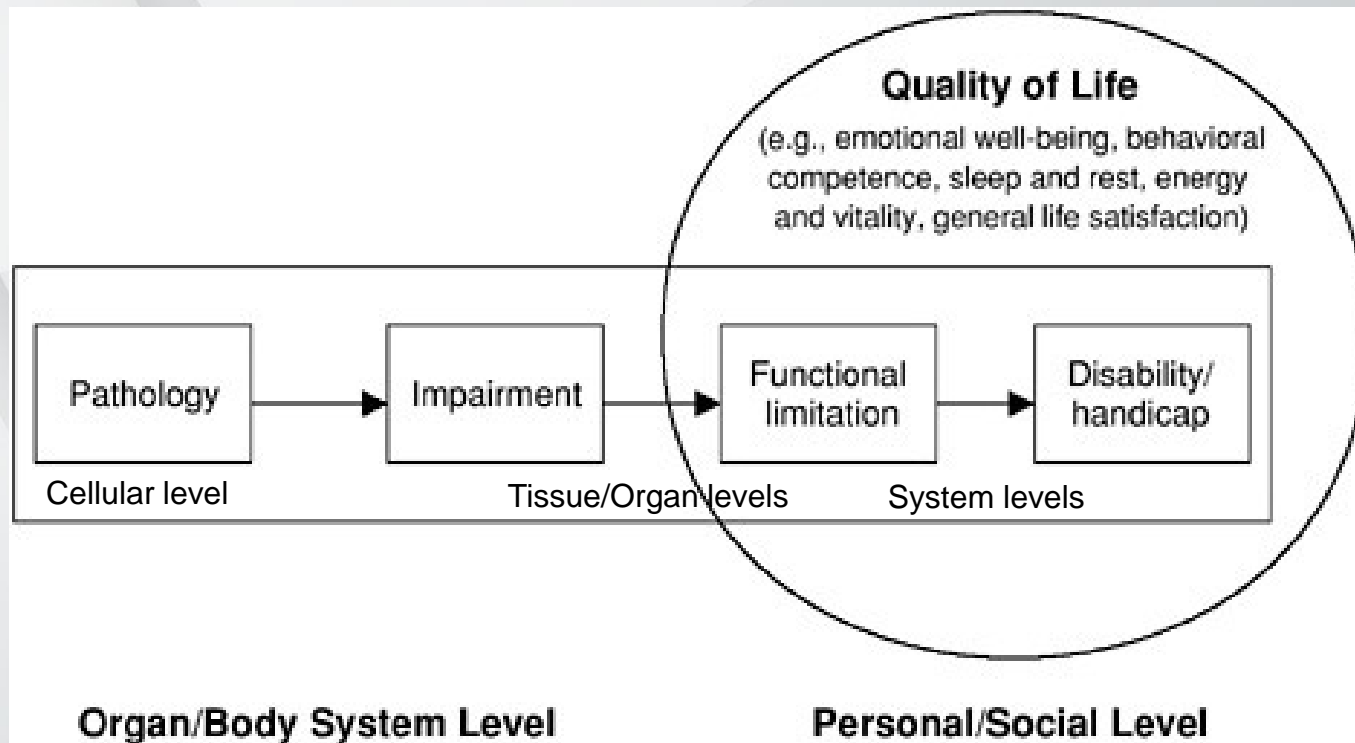
- Cell – 1st Level
- Tissue – 2nd Level
- Organ – 3rd Level
- System – 4th Level



<http://ssds-science.weebly.com/cells-tissue-organ-organ-system.html>

Current Patient Care Model

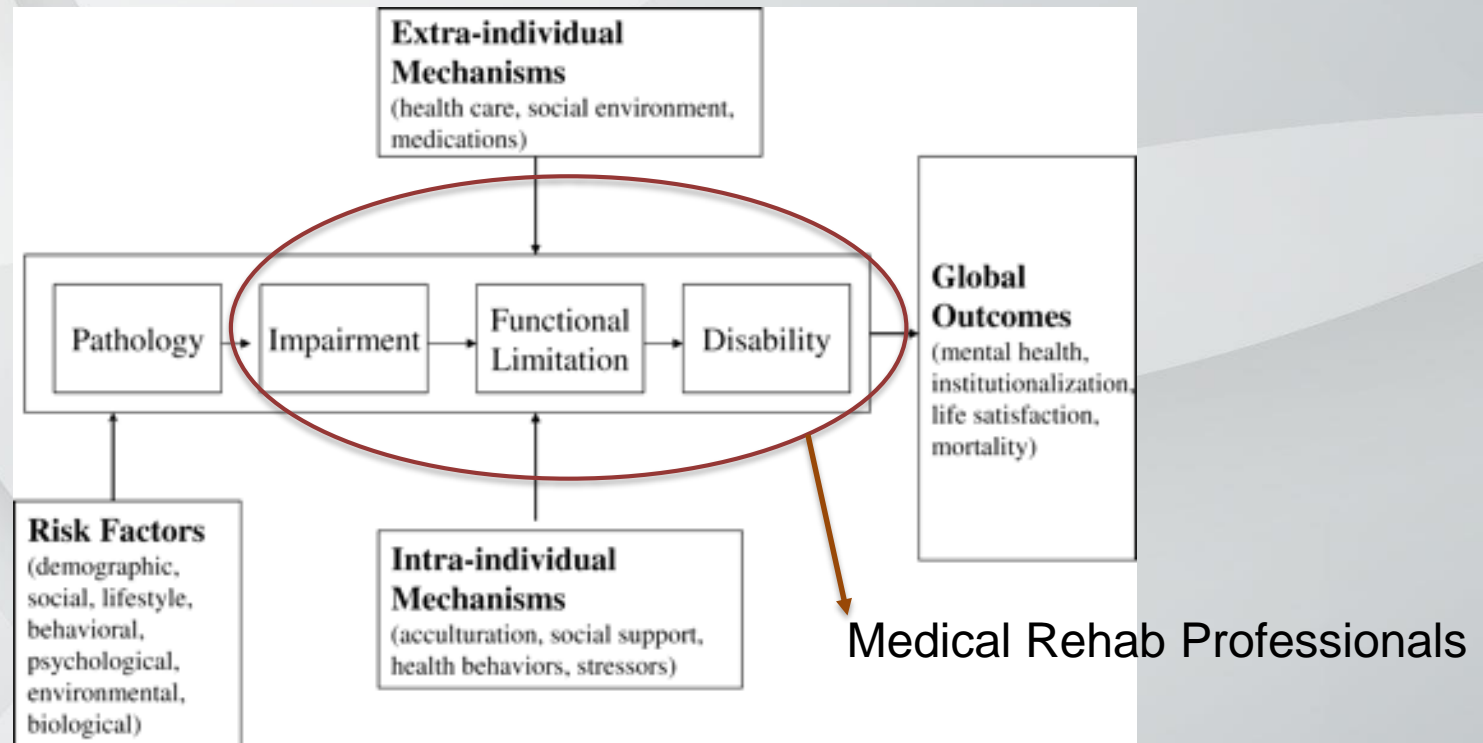
- Nagi Model: Man and the Environment



Jette & Badley (2000)

Current Patient Care Model

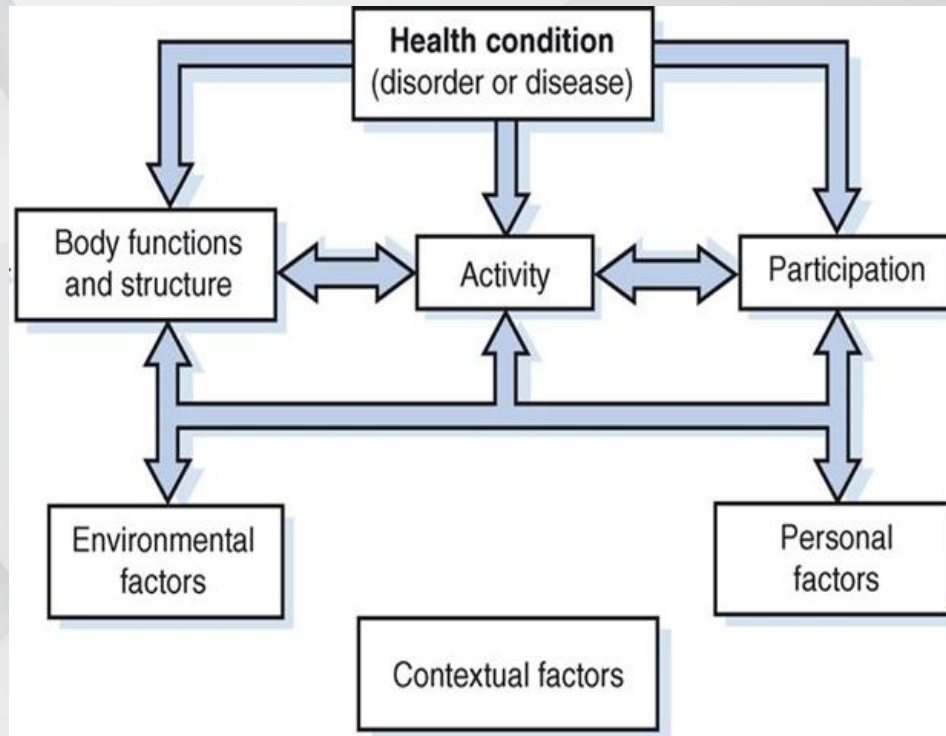
- Nagi Model: Man and the Environment



Peek et al; J Gerontol A Biol Sci Med Sci. 2005;60(3):334-339. doi:10.1093/gerona/60.3.334

Current Patient Care Model

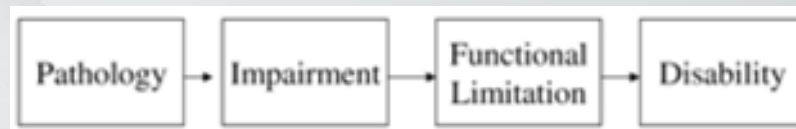
- The ICF Model: Man and the Environment



World Health Organization, ICF Model; Cameron, 2011

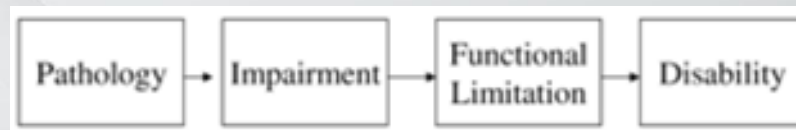
Patient Care Model

- Physicians (and OMs, in the US), are trained to intervene at the cellular (pathology) level:
 - Through introductions of medications, with potential to affect tissue, organ and systems
- Surgeons are trained to reconstruct, remodel, or remove diseased/abnormal tissues, organs, or seldom, whole systems
- Nurses work closely with physicians and surgeons in their interventions



Patient Care Model

- Rehabilitation professionals (physiotherapists, occupational therapists, speech-language pathologists, Audiologists, Chiropractors, P&O, Osteopathic Medicine, etc) are trained to intervene at the tissue, organ and systems level, which potentially impacts and restores normal functioning, minimizes or resolves disability, and increase Activity participation



WHO Global Disability Action Plan 2014-2021

- The 67th World Health Assembly adopted a resolution endorsing the WHO Global Disability Action Plan 2014–2021: *Better health for all people with disability*
- The action plan provides a major boost to WHO and governments' efforts to enhance the quality of life of the one billion people around the world with disabilities
 - **1,000,000,000 = 1×10^9**

World Health Organization, http://www.who.int/disabilities/about/action_plan

Nigeria/Africa's Burden of Disease

- Developing countries carry over 55% of the global burden of disease, but have <15% of global health care work force
- In contrast, many developed countries carry a lower global burden of disease, but have a relatively higher ratio of the global health care work force

World Health Organization, World Report

WHO Global Disability Action Plan 2014-2021

- The action plan has three objectives:
 1. To remove barriers and improve access to health services and programmes
 2. To strengthen and extend rehabilitation, habilitation, assistive technology, assistance and support services, and community-based rehabilitation
 3. To strengthen collection of relevant and internationally comparable data on disability and support research on disability and related services

Barriers and Access to Medical Rehabilitation Services

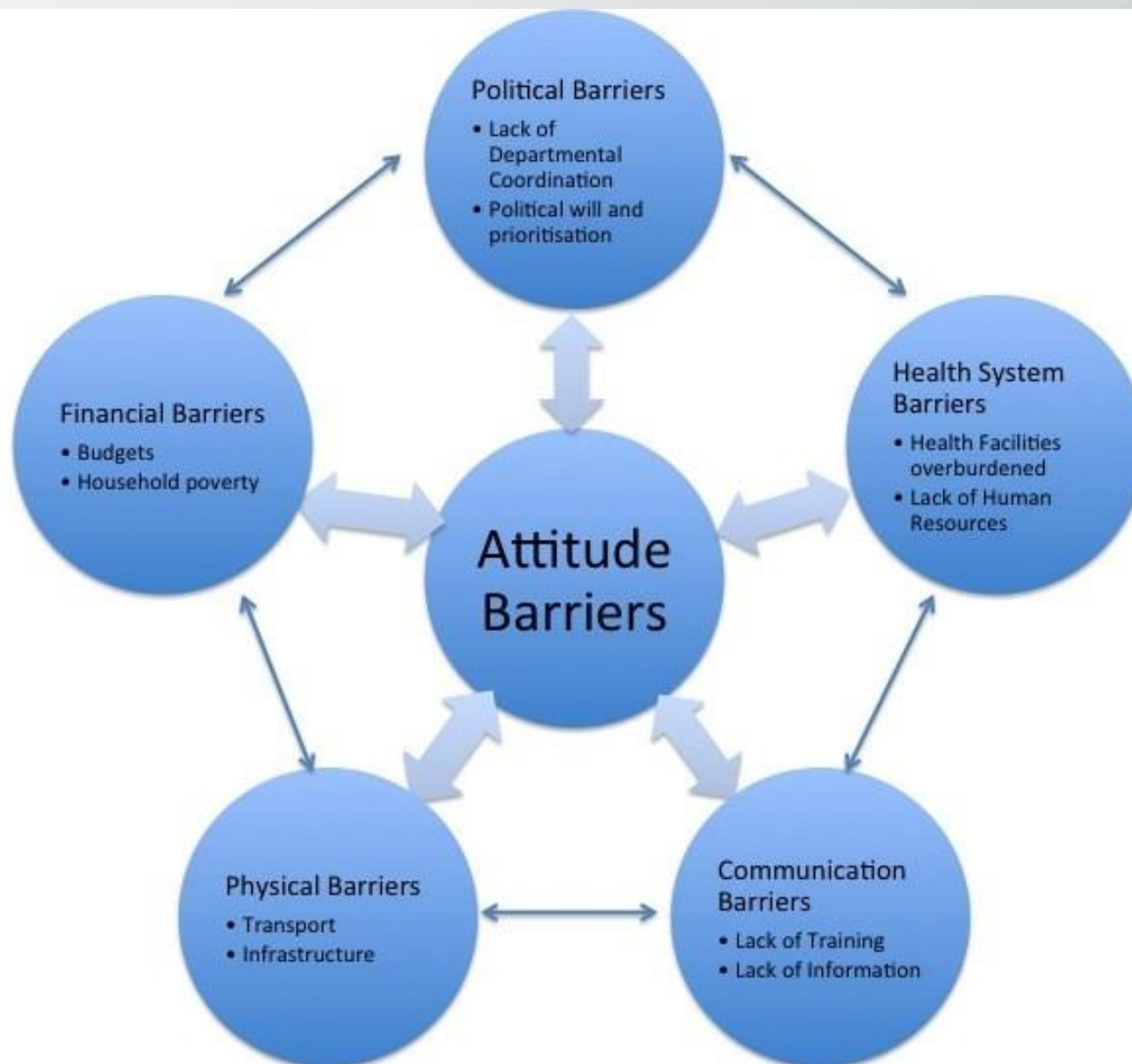
- What are the major Barriers limiting Access?
 - Physical barriers
 - Transportation, infrastructure
 - Sociocultural Barriers
 - Social Stigma, Religious belief, Myths, Budget, Unemployment, Household Poverty
 - Communication Barriers
 - Education, Information

Adamu et al (2002); Balarabe et al (2014); Hansen et al (2014); Hussey et al (2017); Idowu et al (2015); Sule et al (2008)

Barriers and Access to Medical Rehabilitation Services

- What are the major Barriers limiting Access?
 - Health System's Barriers
 - Lack of Access; Overburdened Health facilities
 - Lack/Shortage of Medical Rehabilitation Professionals
 - Omission of Medical Rehabilitation in Health Care System
 - Political Barriers
 - Lack of Political Will and Courage to do the Needful
 - Lack of a National Policy on Medical Rehabilitation
 - Lack of Prioritization of Medical Rehabilitation

Adamu et al (2002); Balarabe et al (2014); Hansen et al (2014); Hussey et al (2017); Idowu et al (2015); Sule et al (2008)



Hussey et al (2017)



Strengthen, Extend Rehabilitation and CBR Services

- How do we strengthen and extend rehabilitation, habilitation, assistive technology, assistance and support services, and community-based rehabilitation?
 - Create a National Policy on Medical Rehabilitation
 - Start with a Directorate of Medical Rehabilitation at the Federal and States Ministries of Health; headed by a Rehabilitation Professional
 - Medical Rehabilitation Professionals should be at the table when formulating National Health Care Policies

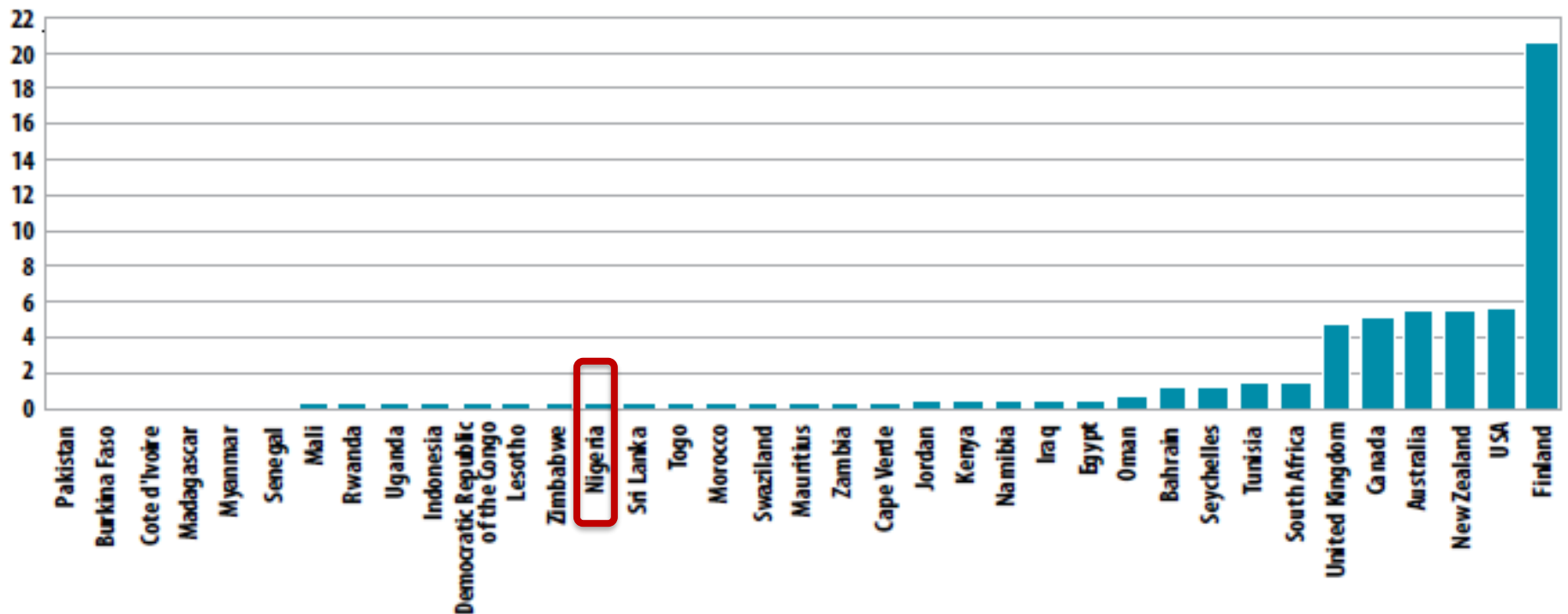
Agho & John (2017); Balogun et al (2017); John et al (2012)

Strengthen, Extend Rehabilitation and CBR Services

- How do we strengthen and extend rehabilitation, habilitation, assistive technology, assistance and support services, and community-based rehabilitation?
 - Education: Upgrade and Establish Training Programs for MRPs
 - Physiotherapy at Doctorate entry level
 - OTs at minimum Master's Entry-level
 - Communication Sciences & Disorders (SLP, Audiology, etc)
 - P & O needs to become a Bachelor degree program

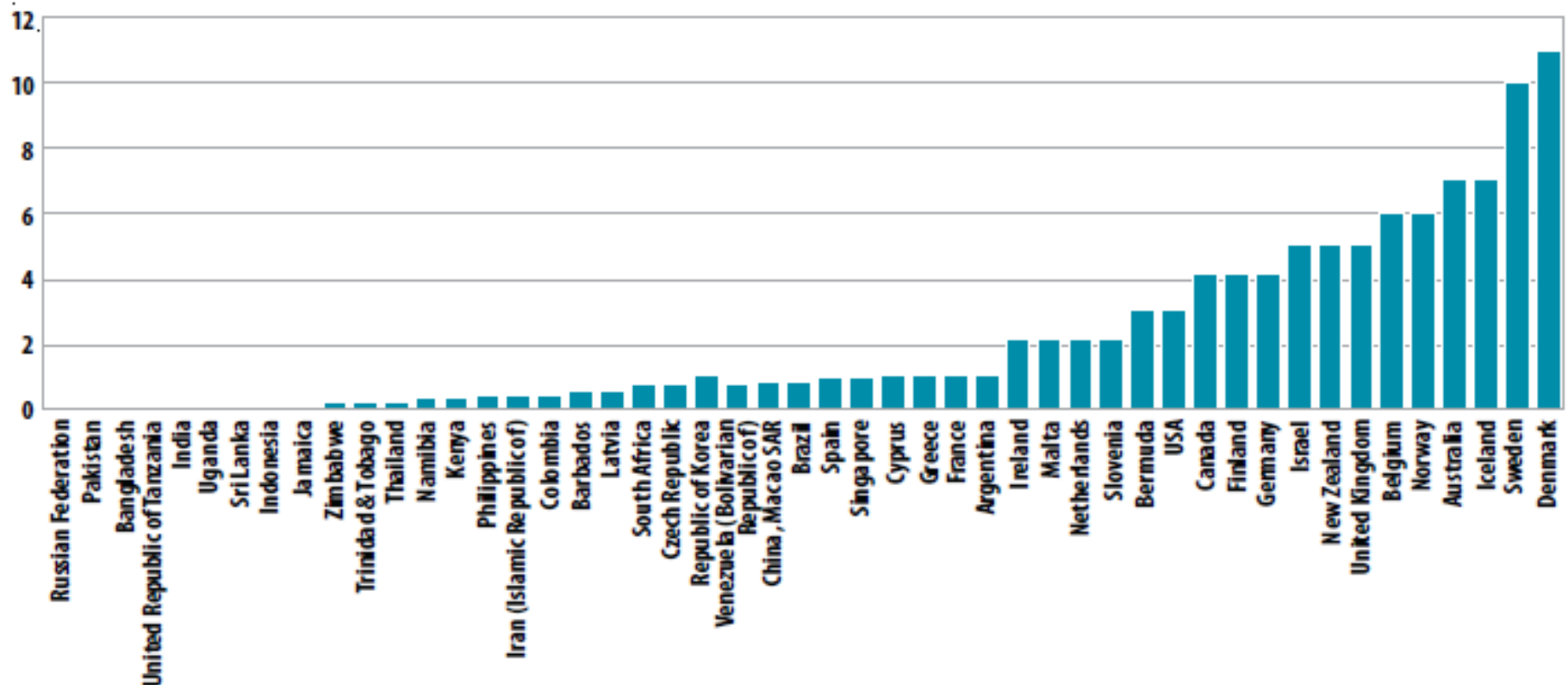
Agho & John (2017); Balogun et al (2017); John et al (2012)

Fig. 4.1. Physiotherapists per 10 000 population in selected countries



WHO-Worldbank Disability Report (2011)

Fig. 4.2. Occupational therapists per 10 000 population in selected countries



WHO-Worldbank Disability Report (2011)

Shortage of MRP, But High Unemployment Rate!!!

- Only approximately 4,000 MRPs in Nigeria today
- Despite the dire and great need in this sector of the healthcare system, I understand there might ~20-30% unemployment rate amongst physiotherapists, as an example

Upgrading curricular of existing PT Education programs

- Our Contribution to Upgrading Medical Rehabilitation Education in Nigeria
- Nigeria-Michigan Model
 - In 2011, the Nigeria Physiotherapy Network worked with University of Michigan-Flint, USA to start an online tDPT program for Nigerian PTs
 - >25 Nigerian Physiotherapists graduated since 2013 with Doctorate of Physiotherapy degrees
 - We are upgrading education and practice one MRP at a time

Recommendations by WHO and World Bank on Disability

1. Enable access to all mainstream policies, systems and services
2. Invest in specific programmes and services for people with disabilities
3. Adopt a national disability strategy and plan of action
4. Involve people with disabilities
5. Improve human resource capacity
6. Provide adequate funding and improve affordability
7. Increase public awareness and understanding of disability
8. Improve disability data collection
9. Strengthen and support research on disability

World Report on Disability by the WHO and World Bank (2011)

Implications for Educating Healthcare Professionals of the Future

- **Healthcare is a team sport:**
 - Current acrimony in Nigeria's healthcare system amongst the medical doctors and other healthcare professionals is a 19th century model
 - First in line against deadly diseases does not imply the ONLY one in-line
 - Race against time, train other healthcare providers as Technicians
- The Patient should be the focus, not the healthcare professionals
 - We should always ask; what is best for the patient?
 - Which healthcare professional does the patient need most ...now...at each phase of disease process, based on patient's current status??

Investing in the Medical Rehabilitation Sector of Nigeria's Healthcare System

- **Federal Government Investments:**
 - There should be a National Rehabilitation Hospital (NRH) built in all geopolitical regions of Nigeria



Investing in the Medical Rehabilitation Sector of Nigeria's Healthcare System

- **Federal Government Investments:**
 - The NRH will lead be in the forefront leading provisioning of Medical Rehabilitation Services and Research



Investing in the Medical Rehabilitation Sector of Nigeria's Healthcare System

- **Value Medical Rehabilitation Professionals:**
 - Education, Remuneration, Incentives, etc

Take Home Message

- There is a crisis of Medical Rehabilitation in Nigeria and Africa
- Previous 'Acts of Omission' of neglecting medical rehabilitation needs to be corrected
- All barriers to Nigerians accessing medical rehabilitation component of the healthcare system need to be eliminated
- Nigerian and DALY figures need to be improved
- More funding is needed to increase human resources in medical rehabilitation, resolve crisis of unemployment in the medical rehabilitation sector
- Education curricula of rehabilitation professions and disciplines need to be upgraded
- The Federal Government need to invest in the Medical Rehabilitation sector of Nigeria's healthcare system

Thank you for Inviting me!!!

- Questions and Discussions

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