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Critical role of Rehabilitation in Global Health: The Next Step

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Key Messages

Global disability prevalence is increasing as people are living longer with non-communicable and chronic illnesses. Rehabilitation Medicine is an integral component of health systems that address Sustainable Development Goal 3: Ensure healthy lives and promote wellbeing for all. Rehabilitation can provide coordinated health care delivery that optimizes functional independence for persons with injuries and disabilities, in acute and chronic health conditions. Health systems need to scale up Rehabilitation services for improved access and for 'existing' unmet need. Current Rehabilitation workforce is insufficient to meet the global demand and need, especially in low and middle income countries. Rehabilitation physicians can contribute to the UN strategy to address unmet needs and to strengthen rehabilitation.

An estimated one billion people, 15% of the world population are unable to walk, perform self-care, communicate or participate in education or employment [1]. Eighty percent of persons with a disability (PwD) reside in low and middle income countries (LMICs), many in poverty and poor health [1-3]. The global prevalence of disability is expected to increase due to trends in population ageing and increasing prevalence of chronic conditions, natural and man-made disasters [1,3]. There will be a concomitant increase in burden for national healthcare systems particularly in countries with limited resources. The economic and social costs of disability are difficult to quantify because of the variation in definitions and reporting systems, the type and content of disability services and programs, and the lack of standardized methods for routine data collection and national registries [1,3,4]. There is, however considerable economic and social cost of disability to individuals and communities [1]. Most PwD are economically deprived and experience difficulties in accessing basic health services including rehabilitation. The management of disability is complex and many PwDs need specialised services for long-term comprehensive management and trained

rehabilitation professionals make a difference [5]. In recent years there have been significant improvements in the acute healthcare systems and policy, but these have not always included systems to develop rehabilitation services [3,6]. A survey of government action of 114 countries on the implementation of the United Nations (UN) Standard Rules on Equalization of Opportunities for PwD (2006) found that 42% of countries had not adopted a rehabilitation policy; 50% had not passed legislation on rehabilitation for PWD; and rehabilitation programs were not established in 46 countries (40%) [7]. One third of countries did not allocate a specific budget for rehabilitation services (1) and globally only 3% of PwD received the service [7].

Skilled rehabilitation professionals are insufficient in number and distributed unequally. The 30 million people in Africa, Asia and Latin America require over 180,000 rehabilitation professionals [8]. In sub-Saharan Africa the survey identified only six rehabilitation doctors for over 780 million people [5]. Currently there are less than 10 skilled rehabilitation practitioners per 1 million population in LMICs and less than 30 per million populations in the African, Southeast Asian and Eastern Mediterranean region and less than one rehabilitation physician per 1 million people [5].

Despite growing demand for rehabilitation many countries, specifically low- and middle-income countries, currently fail to meet the existing need and many lack adequate access to rehabilitation services [1]. For example, the total number of healthcare professionals (physicians, nurses and midwives) is estimated at 890 per million population in the African Region, 1900 per million in the South-East Asian Region and 2210 per million population in the Eastern Mediterranean Region [1,2]. The density of rehabilitation practitioners and other health professionals who can deliver rehabilitation is far below the threshold required for providing adequate services [2]. It is estimated that the skilled rehabilitation practitioner density is often below 10 per 1 million population [2]. To cover needs of all individuals for Prosthetics and Orthotics, at least 5 professionals per 1 million population will be needed and for Occupational therapy 750 professionals per 1 million population are required. Figures 1-5 below shows the density of various rehabilitation professionals in the WHO regions (all figures adapted from WHO 2017 [2] (Figure 1-5). Based on the World Bank (2015), high-income countries include those with gross national income per capita of US$ 12 475 or more. All other data in figures below are from low and middle income countries.

Figure 1: Density of rehabilitation physicians by WHO region [per 1 million population).

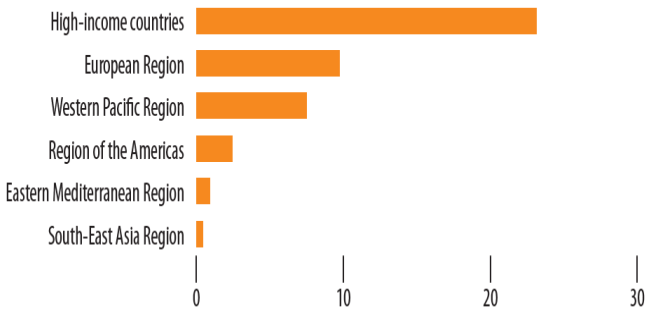

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Figure 2: Density of prosthetists and orthotists by WHO region (per 1 million population).

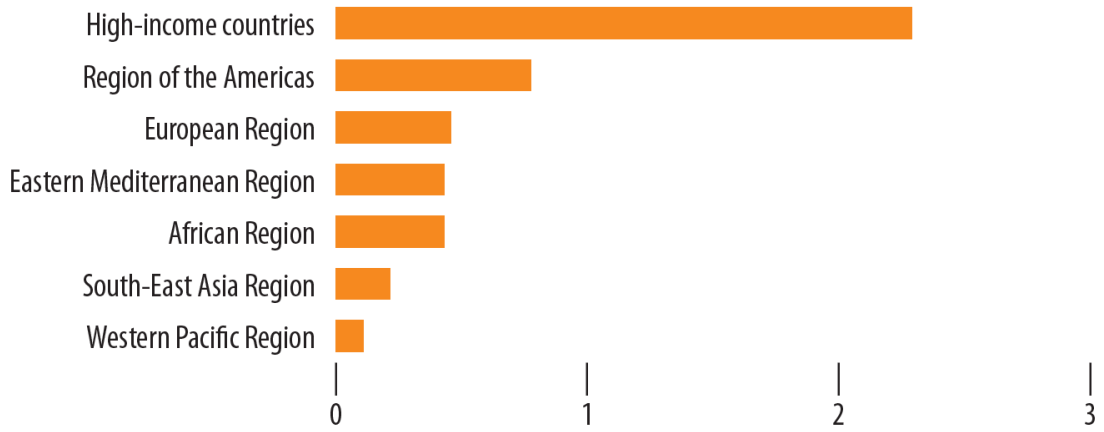


Figure 3: Density of occupational therapists by WHO region (per 1 million population).

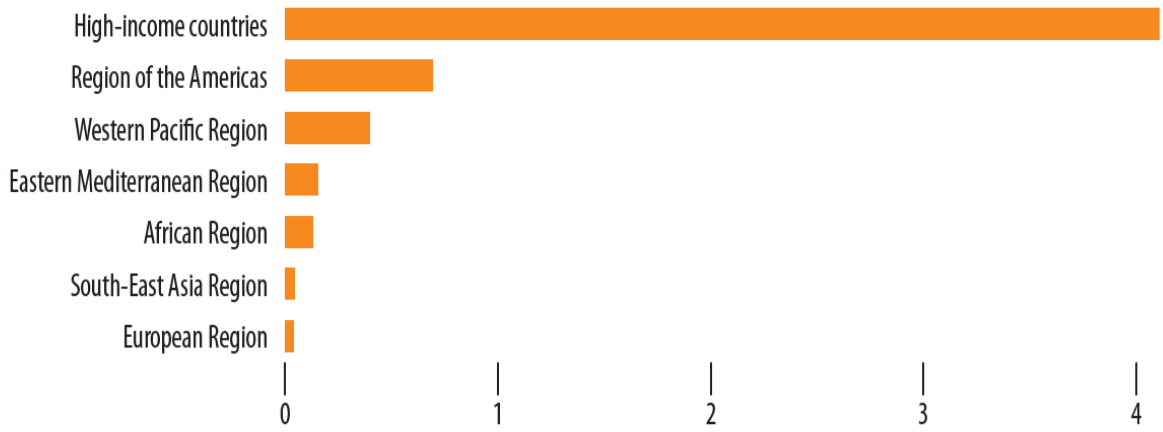


Figure 4: Density of physiotherapists by WHO region [per 1 million population).

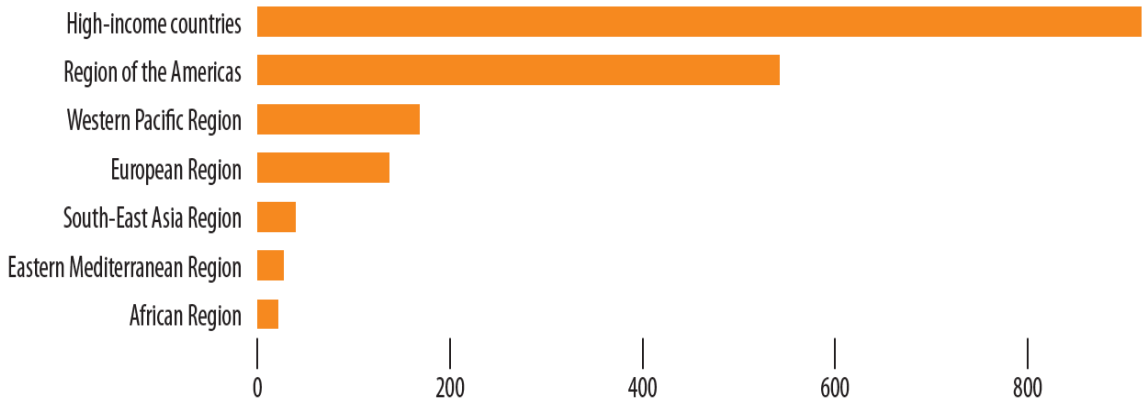
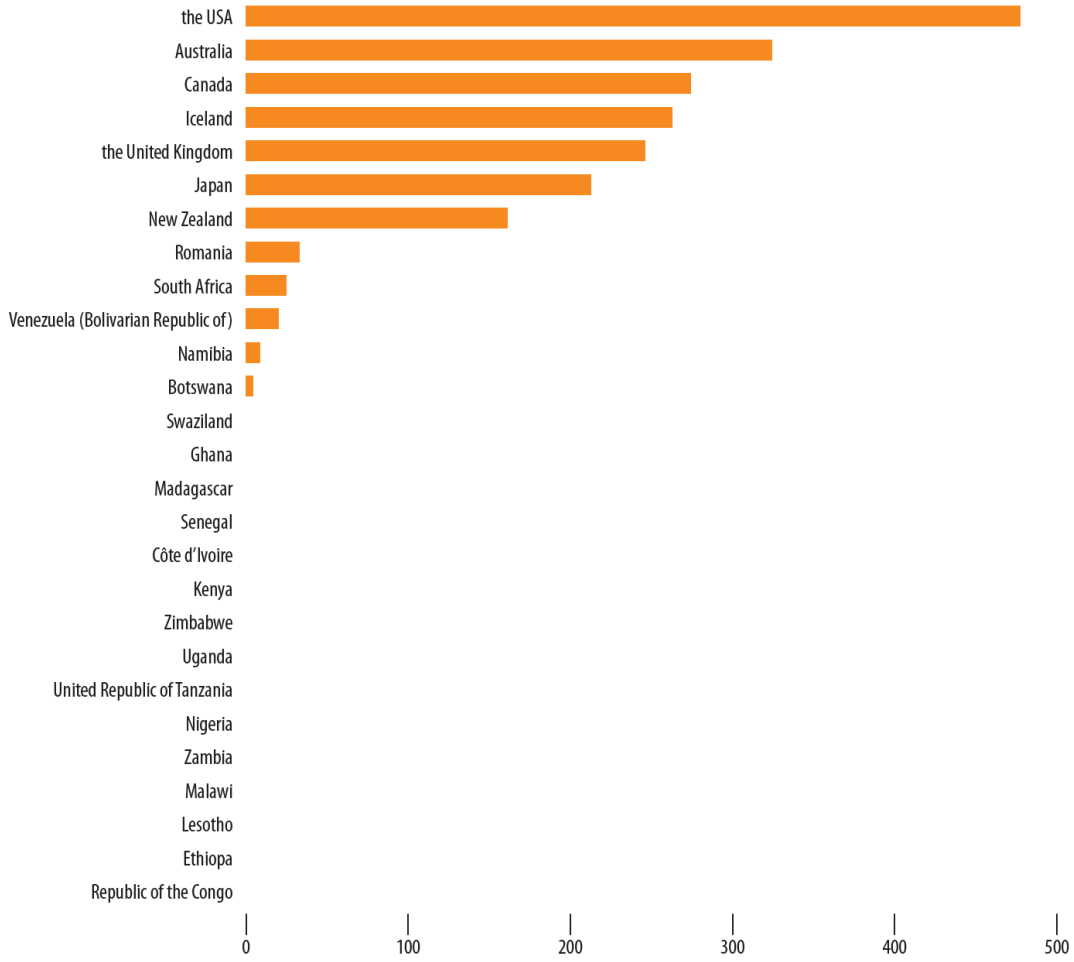


Figure 5: Density of speech and language therapists in different countries of WHO region (per million population).



With the United Nations Standard Rules on the Equalization of Opportunities for Persons with Disabilities the international community started to recognize and endorse the rights of PwDs [9]. The Convention on Rights of Persons with Disabilities (CRPD) promotes the full integration of PwDs in society with a "rights based" approach, defining disability as a human experience that occurs as an interaction of a person with health condition with their environment and personal factors [10]. So global awareness of disability-inclusive development is increasing with encouragement of all UN member states to adopt appropriate measures to eliminate discrimination and poverty, improve health, quality of education and employment of PwDs.

The CRPD (article 26) mandates access to rehabilitation for PwDs for physical, mental, social and vocational ability, inclusion and participation [1,9]. The WHO World Disability Report (2011) provides comprehensive information on disability with special emphasis on rehabilitation and implementation of the CRPD [1]. The WHO endorsed Global Disability Action Plan (2014-2021) specifies actions for rights and care of PwDs including a human rights-based approach (for empowerment of PwD) and a life-course approach, a "continuum of care" including rehabilitation that is universal, culturally appropriate, multi-sectorial,

community-based and patient centred [11]. The UN's Sustainable Development Goals (SDGs): Knowledge Platform (2015) set 17 goals for a new global agenda to build sustainable disability-inclusive communities with equitable healthcare for PwDs [12]. The key objective of these initiatives is to develop policies to enhance the quality of life of PwDs by improving rehabilitation services for UN member states, and their national and international partners (and consumer organizations), with standards that are applicable worldwide across countries, cultures, professions and sectors [9,12].

Rehabilitation physicians are perfectly placed to advocate and promote the UN agenda for PWDs. There is now increased awareness of global disability epidemiology with disability-related demographics and trends to influence development of services and policies, to better understand relationships between disability and health-related variables. The use of validated outcome measures to assess rehabilitation programs will provide data on "function" in a population, health services utilization and rehabilitation service availability. The gap in resources and health systems related to the technical assistance for rehabilitation interventions for practitioners in low resource settings can be overcome by providing "intervention packages" as a guide for rehabilitation professionals where appropriate. Further the development of evidence-based rehabilitation service packages (such as a "toolkit") may be a step towards assisting interdisciplinary teams to set rehabilitation service models, appropriate to cultural and local resource needs. The development and implementation of best practice guidelines for rehabilitation interventions relevant to low resource countries will support such initiatives [1]. Previous reports from a number of LMICs (such as, Madagascar, Pakistan, Nigeria, Morocco and Malaysia) have highlighted local challenges to implementation of the global disability action plan [13-15]. They listed recommendations from rehabilitation experts in those countries identifying barriers to, and facilitators for implementation of the global disability action plan. These recommendations have wider applicability in low resource settings and should be considered seriously. Identification of accessible education and training opportunities are needed to counter skilled workforce shortages in low resource settings: for example, using low-cost web-based technology; rehabilitation teaching programs and workshops; exchange programs, etc. Importantly the development of models for community-based programs in low resource settings will strengthen the evidence for implementation of such programs and the use of standardized tools will allow their "scaling up" and will set standards for implementation of research.

Further, there is a need for comprehensive rehabilitation-inclusive disaster management approaches which will continue to strengthen and build capacity of local rehabilitation workforces with training and education of rehabilitation professionals for deployment in disasters as per the WHO Emergency Team Initiative. The focus is to develop a standardized assessment tool and strengthen sustainable community-based, vocational rehabilitation programs for long-term care of disaster survivors [16-18].

The International Society of Physical and Rehabilitation Medical (ISPRM) endorses these approaches in accordance with: the WHO "Rehabilitation 2030: A call for action"; the WHO

Global Disability Action Plan 2014-2021", The World Health Assembly resolution on improving access to assistive technology and universal health coverage and implementation of all UN SDGs . The ISPRM is committed to ensuring progressive achievements across all sectors through collaborative partnerships that inspire interest, mobilize resources, engage in dialogue and guarantee positive impact in this area. Although there are many challenges, the ISPRM is committed to working with all concerned parties to support the achievement of these goals.

The 2030 Agenda for Sustainable Development and its SDGs embody a sustainable roadmap for progress that supports a disability-inclusive world [9]. The way forward is to ensure engagement of rehabilitation physicians to strengthen commitments at global, regional and national levels to highlight disability-inclusive development by:

Strong leadership and governance by UN, WHO, Local Health ministries, INGOs etc. to develop processes and systems that assist in design of organized delivery of rehabilitation services. This includes aspects such as: logistics, surveillance and adequately maintained scale for rehabilitation service delivery. Strengthening the capacity for strong interdisciplinary workforces empowering local service providers for sustainable long-term care.

Elimination of barriers that exclude PWD, such as discriminatory laws and policies, lack of accessibility in physical environments, negative attitudes, discrimination and lack of access to healthcare services (including rehabilitation and assistive technology) and participation. Mainstreaming disability into the implementation of SDG's with focus on social protection, education, employment, improved health care coverage and affordability. Embracing a system-wide approach for disability-inclusive development, with participation of all stakeholders and community at large

Development of rehabilitation-inclusive management plan for PWD, including disaster survivors, in which responsibility is shared by all actors in organizing, managing and coordinating medical management teams to ensure a rapid, professional coordinated response and long-term care. Increasing public awareness, education and access to disability services and rehabilitation. The recognition of social and cultural barriers for PWD, which plays a significant role in the effective management and planning. Monitoring and evaluation of progress towards the SDGs for PWD with more accurate data and evidence-based research.

Ensuring adequate financial resources, building national capacity [infrastructure and skill rehabilitation workforce). The fostering political commitment from our world leaders and governments to strengthen national policies and legal systems. Promotion of inter-sectorial partnerships between governing authorities, donors and organizations of PWD, communities with PWD and their families. Inclusion of PWD in decision-making processes as active stakeholders at all stages of management. The more rigorous and appropriate data collection and research to improve the quality of evidence for different rehabilitation interventions, and to strengthen health systems to include and deliver for PWD.

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