Rehabilitation: Estimating Need

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Rehabilitation is a set of interventions designed to reduce disability and optimise functioning in individuals with health conditions in interaction with their environment.
Overview

- Key ingredients of rehabilitation
- Approaches to estimating need
- Estimates of need
- Challenges of measurement
- What can be done
Key ingredients of rehabilitation

- Interventions to improve capacity to execute tasks and actions
- Modify the environment to improve performance
- Find the best fit between capacity and the environment to maximize performance
- Ultimate goal to enable individuals to engage in what matters to them
- Multidisciplinary and multisectoral
Approaches to estimating need

- Top down approach based on epidemiology of health conditions
- Bottom up approach based on data from surveys, facility based data or administrative data sources
- Deciding on outcome of interest
- Deciding on measure of effectiveness
- Choice of tracer conditions
Estimates of need – our approach

- Derive from most recent comparable and consistent global health estimates
- Estimate burden / need based on Years Lived with Disability
- Exclude self-limiting or acute infectious conditions
- Set a threshold for level of disability to provide conservative estimates
- Derive estimates solely based on decrements in capacity
Estimates of need – our approach

- Use Global Burden of Disease 2015 data
- Exclude conditions with mild levels of disability such as asthma, malaria, dysthymia
- Separate conditions with moderate from severe levels of disability
- Illustrative moderate conditions: dementia, low back pain, tuberculosis, age associated hearing loss
- Illustrative severe conditions: HIV/AIDS, cancer, depression, stroke
Estimates of need

- 74% of the total number of YLDs in 2015 linked to health conditions that could potentially be helped by rehabilitation
- 15% of YLDs caused by health conditions that are severely disabling
- Prevalence of severely disabling conditions increased by 183 million in a decade – 23% increase
- Number of YLDs increased by 17 million
Top 10 Moderately disabling conditions

- Low back pain
- Hearing loss
- Neck pain
- Migraine
- Anxiety Disorders
- COPD
- Bipolar Disorder
- Dementias
- Tuberculosis
- Other gynecological diseases

YLDs in 2015 (thousands)
Top 10 Severely disabling conditions

- Major Depression
- Schizophrenia
- Cancer
- Chronic kidney disease
- Opioid Use Disorders
- Psoriasis
- Alcohol Use Disorders
- Epilepsy
- Rheumatoid arthritis
- HIV/AIDS
Top 15 disabling conditions

1. Low back pain
2. Major Depression
3. Hearing loss
4. Neck pain
5. Migraine
6. Anxiety Disorders
7. Schizophrenia
8. COPD
9. Bipolar Disorder
10. Cancer
11. Chronic kidney disease
12. Opioid Use Disorders
13. Dementias
14. Psoriasis
15. Alcohol Use Disorders

YLDs in 2015 (thousands)
Mismatch between need and availability
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- Low and lower-middle income countries
- Upper-middle-income countries
- High-income countries
Challenges in measurement

- Defining the denominator – those in need – implications of choices
- Defining the numerator – those who receive interventions
- Quantifying effectiveness of interventions
- Choice of outcome of interest
- Choice of tracer conditions
- Limiting scope of interventions?
Future directions

▪ Building consensus
▪ Standardizing framework for data collection
▪ Creating integrated data collection platforms
▪ Demonstrating returns on investment
▪ Integrating within national and global public health agendas
Health in the Sustainable Development Agenda
Leaving no one behind

Ensure healthy lives and promote well-being for all at all ages