Reviewer's report

Title: Contribution of chronic diseases to the disability burden in Belgium

Version: 3  Date: 31 January 2015

Reviewer: John Powles

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General
The measurement of disability levels in populations and their attribution to
causes pose difficult challenges to investigators. This paper takes one possible
approach but is not sufficiently explicit about its limitations and does not compare
findings with radically different approaches eg that of the 'years lived with
disability' metric in the Global Burden of Disease studies.

Major compulsory revisions

Minor essential revisions

1. Scope
The age range under consideration should be clear in the title.

2. Recognition of limitations inherent in the definition of disability used
Disability is operationally defined as ‘difficulties in performing activities of daily
living’. This should be qualified as ‘reported difficulties…’

It should also be noted in the limitations section of the discussion that this is not a
comprehensive definition eg someone with complete hearing loss has no
disability on this definition.

3. Attribution of disability to diseases only and not also to injuries
That disability may be due to the sequelae of injuries (eg traffic injuries in the
younger population and falls in the elderly) is acknowledged in the discussion (eg
p 13, p 15) but much of the earlier text seems to be based on the assumption
that all disability is potentially attributable to disease (eg p 3 lines 23,24). It
should be explicitly acknowledged earlier in the text (eg in methods) that the
framing of the study question and the data and methods employed are not able
to account adequately for disability attributable to injury.

4. Comparison of approaches based on self reports with more ‘objectivist’
approaches
Thresholds for reporting difficulties in ADL have been shown to vary by age, sex
and country. Eg Melzer and colleagues constructed an index of ‘mobility related
physical limitations’ based on walking speed, timed chair stands and peak
expiratory flow rate and studied its relation to reported difficulty in walking in US
and Dutch respondents. Studies such as this should be cited when discussing
the validity and comparability of self-reported data.

Results should also be compared with approaches based on epidemiological modelling, most notably the Global Burden of Disease project. See for example:


Discretionary revisions

Abstract Results

‘Neurological diseases and stroke were the most disabling diseases for men and women’. Meaning unclear. ? Accounted for the highest proportion of disability? ?Had the highest level of disability among those who reported having the condition?

P 4, l 12: ‘Proportions responding’ (proportions are not rates). (also p 14, l 25).

P 5, l 5: ‘Disability was operationally defined as reported difficulties …’

P 8, l 8: the prevalence of ‘previous heart attack’ (it is not the prevalence of persons currently experiencing a heart attack).

Figure captions, Figure 1: ‘disability prevalence (%) by gender ..’ (also for y axis label).

Tables 2 and 3 should include columns for ages 15+ (age standardised).

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

I declare that I have no competing interests