Reviewer's report

Title: High prevalence of diabetes, depression, anxiety, hypertension, asthma and COPD in the total population of Stockholm, Sweden - a challenge for public health

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Reviewer: Alejandro Videla

Reviewer's report:

The paper describes the prevalence of diagnoses of common diseases in the medical records of the population of Stockholm Country as obtained from a unified database over a five year period. The authors describe the percentage of diagnosis allocation by age and medical care setting (primary care, secondary care, hospital admission).

Major compulsory reviews

1. Throughout the paper the authors use the concepts of prevalence of disease in the general population and prevalence of diagnosis in the healthcare database as interchangeable. From my point of view this is misleading as some population groups can delay their access to healthcare or suffer a delay of the diagnosis. It is possible that every single inhabitant of the area of interest has been included in the administrative database, and if it is the situation the results can strongly suggest the actual prevalence of disease. The authors should address if universal healthcare has been achieved in the area of interest and if there is any possibility of specific population groups not covered or not attending medical care even if covered.

2. Also, factors related to the patient and the way doctors establish a diagnosis can make the prevalence of diagnosis not an exact proxy of prevalence of disease. The authors hint at this topic in the discussion of asthma and diabetes, this topic should be addressed also in the discussion of the other prevalent diseases. If there is any data on the Sweden population on prevalence of common disease from population-based studies it should be discussed and compared for all diseases. A discussion on the differences and similarities of the diagnostic criteria employed in the administrative database and the diagnostic criteria for population-based should be included. A phrase in the beginning of the discussion also points in this direction, but the topic should be addressed also in the introduction.

3. The interpretation on the COPD prevalence should address if the smoking prevalence is also comparable between the population of the study and the administrative database.

4. A discussion on data quality from administrative databases for diagnosis in this specific setting should be included. I.e: were all diabetes diagnosis established with standardized blood testing? Were spirometries performed in all asthma and
COPD testing?

5. What is the authors interpretation of the high percentage of patients diagnosed only in SOC for diabetes and asthma? (20% for diabetes, 28% for asthma)

Minor essential revisions

Title:
I believe “High prevalence of diagnosis of diabetes, depression, anxiety…” is a more accurate description

Abstract:

Background
This section should specify that the prevalence is of diagnosis in the population of the Swedish capital region.

Introduction
“database” is a better term that “warehouse”

Methods and study population
Legally “forced”. In the same phrase the “are “ after public providers can be omitted.

Ethics
“blinded or anonymized” is a better word than “de identified”

Results
“The” before prevalence can be dropped in all titles and “were diagnosed” used instead of “had the diagnosis”

Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being published

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:
I declare that I have no competing interests