Reviewer’s report

Title: How useful are registered birth statistics for health and social policy? A global systematic assessment of the availability and quality of birth registration data.

Version: 0 Date: 02 Sep 2018

Reviewer: Olga Helena Joos

Reviewer’s report:

The authors write about birth registration completeness and include it as component of the VSPI-B measure but the characteristic to which they are referring is, in fact, publicly available registered birth data. As stated in the methods section, "[i]t is important to note that these are the data that are publicly available. Most, if not all, countries are likely to have some form of a birth registration system, but in many countries these data are not published." It is therefore erroneous to present the VSPI-B as measuring birth registration completeness when instead this element is the public availability of data on registered births. In the discussion, the authors state, "…these findings imply that approximately 74 million births per year occur in countries whose system do not systematically register them (or at least do not release the aggregate records)." There is a big difference between birth registration and the public availability of birth registration data! The authors should thoroughly reassess this element and its presentation throughout the manuscript and correct it to publicly available registered birth data or another comparable description. In addition, the authors should consider mentioning the growing discussion on open data practices for evidence-based policy making. This goes along with the second point.

Another substantial concern is the author's presentation of the value of this database. The authors state in the abstract conclusion that, "[t]his objective and low-cost approach to assessing the performance of birth registration systems can be helpful to monitor country progress to improve birth registration…" but do not explain how such a database could achieve such a task. The authors mentioned other inflated statements such as, "[t]his index quantifies the extent to which registered and available birth data are useful for guiding public policy" when nothing is mentioned on how policy makers use evidence in policymaking. Additionally, the authors state that, "[w]e expect that the birth registration database, and our findings and framework for assessing its utility, will be of immediate use by both countries and development partners to inform national fertility policies and programs…" Again, the authors present no evidence in the background or conclusions on policymaker use of evidence in developing policy. The authors should also rethink whether to mention policy makers as those benefitting, as they are privy to unpublished government data. It is stakeholders outside the government who are limited by current data availability. The authors should consider rephrasing of the value of the database and also include supporting evidence. For example, the authors state, "[w]e implicitly assume that complete, accurate and recent information about maternal age, newborn sex, birthweight and birth order will provide the essential intelligence requires by policy about the distribution and trends of fertility for…” Assumptions are insufficient! Please provide evidence for the value of data for policymaking and resource allocation.
The authors need to take more care in the phrasing of another element of the VSPI-B, the birth order of the child. The authors state birth order, which is a non-core item in the UNSD Principles and Recommendations, and includes live births and fetal deaths. If the authors are referring to birth order of only live births, then this element should be stated as 'live birth order.' However, in the Data sub-section within the Methods section, the authors describe this element as the number of registered live births specified by age of mother. Children born alive to mother during her entire life is altogether a different data element in the UNSD Principles and Recommendations and is limited to only live births. The authors mix these two different elements which differ in terms of data value (core/not core) and components (live births only versus all births). The authors should be clear on the element used in the composite measure and its presentation throughout the manuscript.

Countries in table 1 should be aggregated by regions as they are mentioned in the results section.

The authors mentions in the discussion that, "…a number of large countries have not made birth certificate records available in the public domain…" The authors should change the sentence to mention registered birth data. In the current sentence it appears the authors are interested in publicly available birth certificates, which is not recommended as it can lead to identity theft and human trafficking.

The authors should avoid using parenthesis. Either include the parenthetical phrase in the sentence or exclude it.

**Level of interest**

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