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Mini Review

World Health Survey: A Useful Yet Underutilized Global Health Data Source

Witvliet MI[1]*

[1]Department of Sociology and Political Science, Norwegian University of Science and Technology (NTNU), Norway

***Corresponding author:** Witvliet MI, Department of Sociology and Political Science, Norwegian University of Science and Technology (NTNU), Edvard Bulls veg 1, NO-7491 Trondheim, Norway

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Abstract

The World Health Survey (WHS) is a cross-sectional questionnaire developed by the World Health Organization (WHO), conducted between the years 2002 and 2004. Currently, few researchers use the WHS to conduct comparative research. The aim of this article is to discuss the WHS, its advantages and shortcomings. Studies that have used the survey are highlighted and the usefulness of the WHS is emphasized. Findings from a large global survey such as the WHS can provide evidence-based information that may help to inform health policy.

Keywords: World Health Survey; World Health Organization; Global health; Self-reported health; Natural experiments

Introduction

The World Health Survey (WHS) was developed by the World Health Organization (WHO) and is available for free [1]. It is a cross-sectional survey conducted between 2002 and 2004. The survey spans across several countries including, Africa (19 countries), the Americas (7 countries), Europe (30 countries), Eastern Mediterranean (4 countries), South East Asia (5 countries). The WHS is a useful tool for global health researchers in particular for those who conduct comparative investigations, since it is one of the few large global health surveys in existence that contains standardized self-reported health and related data from over a quarter of a million people worldwide. The survey allows researchers to investigate the compositional and contextual determinants of health across countries using standardized data. The WHS consists of two questionnaires (i) a household-level and (ii) individual-level. A substantial amount of self-reported information on personal health (e.g. general health, daily functioning, chronic conditions, mental health, pregnancy, etc.) is contained within the WHS. The WHS also includes information on health-care usage, health-care costs, household and personal socioeconomic situation.

As compared to other global health surveys, the WHS is an unparalleled data source, given that it is one of the only single datasets in existence that contains such rich comparative individual-level health data on people living in high- middle- and low-income countries. Rigorous methodological techniques are utilized (such as the use of vignettes) during survey development to account for comparability across countries [2]. Nevertheless, despite the advantages of the WHS, there are a number of shortcomings. Some include that the WHS is a cross-sectional survey, with its only available measurement taken almost a decade ago; hence the information does not capture possible individual health changes that might have occurred. Another issue is that countries could select which questions were assessed within their populations and this created missing data problems for certain countries. The information on risk factors, height and weight were not imputed accurately for some countries. Linkage of the household questionnaire and the individual questionnaire is not possible, since these questionnaires cannot be matched entirely. The WHS does not sample extremely vulnerable members of society, such as those who were hospitalized, incarcerated, refugees or other migrants not living in a traditional home setting during survey collection.

The WHO keeps a record of articles using the WHS on their website [3]. On the WHO website, 14 studies that used WHS data between the years 2005-2007 are identified and in 2013 there are 12 studies listed. The total number of articles is 86. However, this list might not be exhaustive. Although the number of studies using this survey has increased since 2005, there are few researchers, especially those in the field of global health utilizing this unique data source. Researchers have used the WHS to measure population health and address pertinent health policy issues. For example, studies concerning asthma [4], smoking, [5] obesity and diabetes [6] have been conducted. Contextual-level issues such as those related to governmental investments [7-9], gender equality [10] and societal issues [11-14] have also been investigated. Evidence-based results derived from such studies can be used to highlight problems within particular countries. These natural experiments are beneficial and more research is needed on such topics, as the findings may eventually be used to inform health policy officials and shape policies.

Few large global comparative surveys exist, and of those surveys available, [15-18] even fewer are similar to the WHS and contain an extensive number of individual-level personal health questions from high- middle- and low-income regions of the world together in one dataset. Longitudinal surveys containing comparative global health epidemiological data are also lacking. It is difficult to identify trends in health using cross-sectional data, since most global health surveys do not extensively measure personal health in detail using a consistent measurement around the world annually. Development of large multi-country surveys that takes these limitations into account would benefit comparative research and may increase the usage of global health surveys. In addition to this, emerging fields within epidemiology should also be incorporated into large global health surveys. One such field is molecular pathological epidemiology, which is important for the study of cancer and examines a multitude

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of aspects relating to genes and environment [19]. Widening the perspective in global health surveys to include medical and health information obtained from a health professional and not relying on self-reports alone may increase the usage of the WHS as well as other global health surveys.

Conclusion

The WHS has enabled researchers to investigate health problems that have never before been addressed on such a large comparative scale. If the aim is to conduct natural experiments within high- middle- and low-income countries using individual-level health data, then the WHS might be a fruitful survey. To minimize studying the exact same populations using different research questions, funding organizations should stimulate development of all-inclusive individual-level health surveys that are similar to the WHS, but take into account the afore mentioned shortcomings of global health data sources. To enrich the datasets in this way will prove a costly procedure, however it will allow for up-to-date monitoring of population health around the world and real-time investigation of the effects of newly implemented health policy measures within countries. Until more global health surveys are developed that incorporates extensive individual health questions, the WHS can be viewed as one of the best available options, and its contents should be exploited to the fullest.

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