

XII. DATA QUALITY AND DATA COLLECTION STRATEGIES

1. WHR 2000

The following comments pertain to data quality and data collection methods that were employed in WHR 2000. Data availability and data quality are critical issues for all the health systems performance measures in the report and supporting technical documentation and background papers. This brief discussion on data will be confined to broader data quality and availability issues, and will specifically comment on the World Health Survey (WHS). In-depth data issues that pertain to 'Responsiveness' and 'Fairness in Financing' are discussed in the respective sections.

2. Main commentaries and criticisms

Some of the strongest and most widespread criticisms of WHR 2000 related to data quality and availability (for example, Williams 2000; Oswaldo Cruz Foundation 2000; Ugá et al. 2000). The main strands of criticism were as follows:

- (i) that estimates were based on covariates in the absence of primary data on fairness-in-financial contribution, responsiveness, health inequalities, non-fatal health outcomes, death rates and life tables;
- (ii) that data were collected from key informants who may not be an appropriate source of information;
- (iii) that data requirements for HSPA are too onerous and resource intensive;
- (iv) that quality assurance was inadequate.

3. WHO responses and proposals

(i) Absence of primary data

For the most part WHO relied on datasets available within WHO, or on datasets consisting of national surveys, other surveys such as the DHS, and available household income and expenditure surveys. The only primary data collection efforts by WHO were a web-based survey to elicit information on the weighting of the different health goals, and a Key Informant Survey to obtain information on responsiveness in 33 countries. Acknowledging the limited scope of primary data collection for WHR 2000, new methods have been developed and surveys launched to improve data collection. This

includes the World Health Survey (WHS), which will be conducted in more than 70 countries. The methodology for WHS is based on the Multi-Country Survey Study 2000-2001 and is documented in Üstün et al. (2000).

(ii) Inadequacy of key informants approach

The key informant strategy is an inexpensive method of obtaining information on certain domains. WHO argue that for some domains, properly selected key informants may in fact provide more valid and less biased responses than the general population, owing to key informants' specific knowledge of these areas. In this approach the choice of key informants requires close attention so as to avoid possible biases.

In order to address this question empirically, WHO has collected data on responsiveness and health-system goals from key informants, selected through a snowball sampling technique from lists of health professionals and administrators. The set of questions asked were a subset of those in the questionnaire for the Multi-Country Survey Study, which canvassed the general population. As these two surveys were carried out in the same countries, WHO is able to compare the responses of the key informants and the general population, and address issues of systematic bias. Facility studies and exit interviews are also being planned by WHO to address issues concerning validity.

(iii) Data collection

To build consensus on data collection strategies and avoid duplication of efforts, WHO will collaborate with national agencies as well as with international organizations carrying out surveys such as DHS, LSMS, EURO Barometer and MICS. In addition WHO will provide technical support to countries or agencies wishing to include the WHO Survey instrument in whole or in part in their ongoing data collection strategies. It will build capacity in countries that request support for the introduction of quality assurance and analytical survey techniques.

(iv) Quality assurance

WHO is putting in place a range of quality assurance instruments. The World Health Survey is an important tool to support the quality assurance process. Within Member States a competitive bidding process has been put in place for the execution of WHS.

4. SPRG comments and recommendations

Data required to calculate all five components of the composite index for WHR 2000 were absent for most countries. Where data were available, the quality was not always of a high standard.

Documentation of methods and treatment of missing data

Most critiques of health systems performance assessment repeated the comment that the methodologies used, data sources, and assumptions made in the analyses of WHR 2000 were not adequately documented (Williams 2000; Almeida et al. 2001; McKee 2001).

SPRG recommends that, as a means of gaining transparency and confidence, WHO should make particular efforts to explain the treatment of missing data, and should discuss explicitly the assumptions and extrapolations used in the next round of HSPA.

Data not available where needed most

Data availability and data quality are even more of a challenge in countries whose health systems are not well established, where health information systems are rudimentary, or where health systems have collapsed for reasons of war or strife. It is usually the case that these environments are hard to reach, but these may be countries which have the greatest need for HSPA as a tool for change.

SPRG recommends that HSPA clearly needs to acknowledge this dilemma as a limitation, even though it is recognized that WHO cannot always overcome this difficulty.

SPRG recommends that WHO should make a deliberate effort for early implementation of the WHS in those countries and environments that have the least developed health-information systems.

Data collection

Wherever possible WHO should rely on existing data collection efforts within Member States and coordinate collection activity with the respective data agencies.

Collection of country statistics

The processes adopted in collecting and collating the data used in WHR 2000 are not adequately documented.

SPRG recommends that WHO helps to strengthen national data collection processes, including the government agencies that release official country statistics and data. This approach would immediately take care of potential disputes concerning the acceptability of the data used, but for validation purposes other sources should also be explored.

Data quality

Where data are available, their quality needs to be examined very carefully before any conclusions are drawn. Appropriate validation techniques should continue to be applied.

SPRG welcomes the WHO commitment to improved quality assurance methods. It also recommends that countries should participate in the interpretation and validation of the data to ensure that they are acceptable locally.

Key informants

SPRG considers the 'key informant' approach is susceptible to errors particularly for the HSPA exercise.

SPRG recommends that the 'key informant' approach should wherever possible be used alongside more objective sources of data. It also stresses that the choice of key informants needs careful consideration.

World Health Survey

WHS has been designed and developed on the basis of experience gained from the Multi-Country Survey Study 2000-2001, which was conducted in approximately 60 countries. WHS is designed on a modular basis with the intention of providing low-cost information that supplements data from national health-information systems to build up an evidence base for policy makers.

The commentaries all identify the need for reliable data and information as a basis for effective health-system monitoring. The African and European regional consultations emphasized the importance of WHS being closely aligned to national health-information systems (WHO Regional Office for Africa 2001; WHO Regional Office for Europe 2001). The SPRG view, based on discussion among colleagues and in country reports, is as follows.

- WHS is potentially very useful, and in broad terms SPRG welcomes its introduction.
- The WHS tool requires further refinement. The choice of modules needs to be reviewed for relevance.

XII. Data Quality and Data Collection Strategies

- SPRG recommends that appropriate links are established with other statistical offices and data collection initiatives.
- The survey teams should work closely with countries to ensure that integration with their health-information systems occurs in a meaningful way. While WHS will provide data for HSPA that are currently 'missing', it should not become another parallel system for collecting information that is used exclusively for the HSPA exercise. Rather, WHS should be seen as a mechanism to strengthen existing health-information systems.
- WHS should be self-sustaining, and should not compete for local resources.
- If WHS is to become an important instrument for strengthening national health-information systems, further consideration must be given to its sampling frame. Does the sampling frame enable conclusions to be drawn at sub-national level and comparisons made over time? Local needs must be taken into account in designing the WHS sampling frame.
- The WHS sampling frame should enable information to be obtained on vulnerable groups, such as refugees and itinerant and institutional populations. It is also important that the population covered by the Survey is representative of the population as a whole, including children (and especially girls).
- The issue of cross-population comparability is addressed in Section XIII.

5. References

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