The World Health Survey Plus (WHS+) is a WHO-led data generation initiative to help countries and WHO measure progress towards the United Nations’ health-related Sustainable Development Goals (SDGs), WHO’s 13th General Programme of Work (GPW13) and other topics of public health interest. Its flexible modular design – which allows it to build on existing household survey programmes – has been founded on scientifically robust methods, while incorporating innovative approaches to capture and disseminate health data needed to inform policy and programmatic decisions and track progress.

The first WHS+ Expert Technical Consultation was hosted virtually in April 2021 and set the agenda for this new survey programme while also assessing its foundations and forward-thinking strategies. This will require concrete mechanisms to partner with and support member countries, as outlined in the ‘Next Steps’ section below.

A survey with an agenda

All United Nations member states agreed to ambitious health goals for 2030, requiring a considerable amount of data to monitor and evaluate progress on these goals and numerous targets. Some of this information is already available through household health surveys, which are the preferred source or 29 of the 59 health-related SDG indicators.

The WHS+ consultation brought together household survey experts, member states and WHO colleagues with an agenda to deliver these essential data.

WHS+ will drive measurement of strategic health goals and add value to countries’ data collection.

Why WHS+ matters

Experts participating in the April 2021 consultation examined the Demographic and Health Surveys (DHS), Living Standards Measurement Study (LSMS), Multiple Indicator Cluster Survey (MICS) and World Mental Health Survey to highlight current best practices in household health surveys, as well as new developments in data collection. These studies provide reliable data on a range of health topics using validated methods in a large number of countries. Discussions also included a number of WHS+ modules and key innovations in survey sampling, interview modes and collection of biomarkers.
Importantly, WHS+ will go beyond existing data collection and cover a wide range of health topics, by responding to member state requests for help in strengthening health information systems and building capacity. WHS+ will use a collaborative and coordinated approach to household surveys within and across countries. With country and international partners, WHS+ will work with the surveys previously mentioned and other similar surveys. It will also employ sophisticated methods for sequencing data collection, generating results and engaging partners.

The foundations of WHS+

In many countries, household surveys are important tools to complement routine data collections systems. Currently, surveys which are in place do not cover many countries, often cover only certain topics, focus on certain population groups and are not comparable. They are not institutionalized in a systematic way within national information systems for health and are often carried out without building national capacity.

The WHS+ would aim to achieve better sequencing and coordination between studies, improvements in integrating survey data into health information systems, and inclusion of neglected topics and population groups. WHS+ will provide countries the opportunity to fill gaps in health data. These countries can work with WHO to determine how to best employ WHS+ to generate any additional data needed. WHS+ will support countries to measure what is being done, reveal what impact this is having, establish whether funding has been invested appropriately and assess progress towards global goals.

WHS+ intends to complement and innovate from existing survey approaches, not reinvent the wheel.

WHS+ forward-thinking strategies

Working with national statistics offices to use innovative survey designs, WHS+ will employ a combination of computer-assisted in-person interviews plus online or mobile phone supported data collection, where needed, to ensure timely results. The timing of WHS+ will be integrated with the surveys mentioned earlier – aligning with or filling in gaps from LSMS or MICS – while not overburdening country systems. A modular survey design compiled by country partners would use standardized interview questions, with modules based on the country's priorities, and would ensure that subsequent analyses are informative. Analytical code will be provided before the surveys start. These strategies would further reduce the time it takes to share data and see results.

Can WHS+ deliver?

Working in collaboration with member states and other survey partners, WHS+ can deliver. WHS+ expands on the 2003 World Health Survey, which provided reliable and comparable data in 69 countries.

The new survey is due to launch in 2021/2 and will be repeated every three to five years. The aim is to include 50 countries by 2023.

WHS+ fundamentals

The WHS+ Expert Technical Consultation endorsed five fundamentals for the survey.

1. WHS+ will encompass a forward-thinking approach to data collection

Currently, many countries rely on household surveys as a key mechanism for collecting health information. While surveys generate vital data, much more robust health data will be needed in the years leading to 2030.

The WHS+ team will work with in-country statisticians, academics and policy makers to coordinate and integrate WHS+ with the studies mentioned earlier: DHS, LSMS and MICS. The team will also help better integrate household surveys into routine health management and information systems, adding value to efforts to reach national goals and achieve the SDGs.

Recognising the work already underway, WHS+ will also seek to link to facility surveys, such as the WHO Harmonized Health Facility Assessments (HHFA). Where this is feasible, the WHS+ linkages to facility-level data would add rich contextual information about interactions with health systems. Additionally, where feasible, with appropriate confidentiality safeguards, attempts will be made to link the household survey data with administrative data sources, such as civil registration and vital statistics, to further enhance the value of the WHS+ data.
To further assist member states, the WHS+ team will contribute to decisions about whether to adopt targeted ‘add-on’ modules for their WHS+ or, when data is urgently needed, to opt for rapid mobile surveys between survey waves. (The COVID-19 pandemic has been a good example of urgent data needs). Robust and innovative methods for data collection will characterize the new approach by WHS+, using a more tailored and timely approach to the health data needs of each country. It will offer options for multiple approaches to collect data, including computer-assisted face-to-face interviews, online surveys, mobile phone surveys or, in some countries, a combination of more than one approach.

As new, high-quality data is collected, WHS+ will help countries make better use of that data, by providing analytical code that will allow users to generate results quickly. This shared, standardized coding approach will enable speedier in-country and international analysis. Standardization, by using this coding, will also reduce the reporting burden on countries. Working with in-country teams, the WHS+ team will also support bespoke analyses.

2. **WHS+ will improve sampling methods**

One of the challenges for high-quality data collection is deciding who to sample and how to reach them. Low- and middle-income countries have been falling behind the census schedules for years. This is being further impacted by the COVID-19 pandemic with more than 65 countries confirming possible delays to the 2020 census round. Traditional sample designs for household surveys rely on a recent representative sampling frame, which is usually selected from national censuses – and as just described - are often outdated.

WHS+ will explore an alternate sampling frame approach – gridded population datasets – to improve and extend representativeness of the results. Especially where up-to-date sampling frames are unavailable, this approach helps to establish robust, representative study samples.

Over and above recording of geocoordinates, WHS+ will explore the use of what3words, discrete global grid systems (DGGS), Plus Codes and Digital Door Number to test which method yields the most accurate information. Urban/rural demarcation will be enhanced by the adoption of the WorldPop bottom-up approach using spatial population techniques. WHS+ will use satellite aerial maps, building footprints and gridded population to reduce the cost of household listing.

**WHS+ will develop representative sampling frames from satellite imagery.**

The WHS+ team will work with in-country colleagues to determine the most appropriate way of identifying the target population and then advise on how best to contact the sample. Through this innovative and tailored approach, WHS+ teams will be able to collect detailed, granular, information about different population groups.

3. **WHS+ will use ‘point-of-care’ test devices for immediate disease screening results**

Biomarkers provide invaluable data on underlying health conditions that may not be diagnosed, identify risks to health and predict future health outcomes. Combined with self-reports and health examinations, they provide richly nuanced data to monitor population health trends and determinants. When biomarkers are collected using commercially available, portable ‘point-of-care’ screening or diagnostic test (POCTs) devices, immediate feedback can be provided to respondents about health results and appropriate instructions given.

**Establishing new frontiers in data collection is forward-thinking, but not without its challenges.**

NCDs are the largest cause of mortality in all regions of the world. Their early detection and control can substantially improve health outcomes. Currently, several POCT devices are available to detect likely disease and monitor the effectiveness of treatment as well as identify risks for these conditions to inform prevention. These include, for example, markers for anaemia, diabetes and chronic inflammation, amongst many other potential markers that countries may consider including in WHS+.
4. WHS+ data will be in the public domain to maximize its impact

It is vitally important for survey partners, decision makers and researchers to collect robust data efficiently. They also need to ensure rapid dissemination of data and results. This will bolster scientific rigor and underpin effective policymaking and track progress.

To achieve this, WHS+ will advocate a shared data-collection approach, so that data is consistent and comparable across countries. WHS+ will also include specific, standardized coding for a number of indicators, which will enhance comparison between countries.

Health surveys are expensive endeavours. The content collected by WHS+ has been shaped by numerous experts and stakeholders in order to maximize the return on investment, as well as the utility and use of the results. This will ensure that the final data can be shaped to tell numerous health stories for multiple audiences.

With many large household surveys, there is a lag between data collection and seeing any useable result, which inevitably impacts the value of the data. This means policy makers may be using inadequate or out-of-date data to inform their policies and planning. When there is a time lag, the results may not accurately reflect the current, or future, health needs of the local population. However, the WHS+ sampling approach, combined with prior agreements and digital mechanisms to shorten the time between data collection and dissemination, will help to address this concern.

5. WHS+ will work with in-country teams and stakeholders to deliver

Gathering robust data to measure population health indicators is a challenge for all countries. But to make progress toward the SDG targets, it is essential to be able to measure progress along the way – and this can only be done by countries working together with all stakeholders to efficiently and routinely collect accurate data. WHO recognizes this is a considerable challenge for many countries.

Similarly, the WHS+ team is realistic about the concerns many countries and policy makers may have. For instance, it recognizes the benefits and challenges of coordinating with other large household survey efforts.

In recognition of these issues, WHS+ will work to address concerns about additional workload, funding levels, duplication in data collection and integration into existing health information systems. WHS+ staff intend to work closely with country teams to help overcome these concerns.

The WHS+ approach is internationally driven, but progress can only be made if it is country-led.

Clearly and crucially, the success of WHS+ depends on ministries of health, national statistics offices, donor organizations and WHO working together. This interaction is vital to ensure the survey reduces unnecessary duplication, builds on existing strengths in data collection and is an efficient process.
The Expert Technical Consultation endorsed WHO's efforts to work with countries and other partners to deliver on this agenda. WHO will foster partnerships between ministries of health, national statistical offices and all stakeholders in countries, including UN partners, to reduce fragmentation and data collection burden, especially in settings where capacity is limited.

A first set of countries to implement the WHS+ will be selected and include those with critical data gaps due to an absence of integrated, comprehensive survey programmes and that have not had recent topic specific surveys or participated in surveys that are carried out by other multi-country survey platforms (such as the World Bank's LSMS, USAID's DHS, or UNICEF’s MICS). Where ongoing household health or other surveys exist, specific add-on modules from the WHS+ could be considered for inclusion in those surveys with appropriate technical assistance and partnership.

Given the costs of household face-to-face surveys, WHO will continue to innovate with alternate interview methods. Telephone-based surveys may be a viable option, especially for difficult to reach populations, marginalized groups or for rapid data collection on special topics of acute interest that may be time sensitive. Combining mobile phone surveys with household face-to-face surveys, or linking to administrative data, could potentially increase the value of population health surveys.

In keeping with the principles of making health data a global public good, WHO will work to ensure that data from the WHS+ is comparable and openly shared, while assuring personal data protections. WHO will develop standardized survey modules and searchable question banks. WHO will work to ensure the data are valuable internationally to all stakeholders to derive insights and inform actions to improve population health.

WHO will advocate for household surveys as an invaluable source of health outcomes and determinants with donors and partners. WHS+ will aim to build capacity of in-country researchers and academics to enhance their knowledge, and develop skills in data generation, analysis and use.

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