



# Assessing Progress to UHC - The GNHE Perspective

## Health Service Use

Diane McIntyre, Ravindra Rannan-Eliya, Jorine Muiser, Chiu Wan Ng, Tiara Marthias,  
Chamara Anuranga, Gabriel Leung, Daniel Maceira, Shiva Adhikari

Global Network for Health Equity (GNHE)

March 2015

### Key points

- A key element of Universal Health Coverage (UHC) is access to needed health services for all
- Due to the complexity of measuring access directly, we propose measuring actual use of services
- Instead of focusing on a few services (such as antenatal care and immunisations), GNHE proposes assessing the adequacy and equity of overall service utilisation
- We recommend a minimum average utilisation rate of 4 outpatient visits per person per year; utilisation rates below this threshold suggest that a country is unlikely to have adequate access to services
- For inpatient services, a minimum threshold of 100 inpatient discharges per 1,000 population per year is recommended
- To assess equity, these minimum thresholds should be achieved in all socio-economic groups and as a minimum, utilisation rates should be at least equal across socio-economic groups



## Introduction

There is intense, on-going global discussion and increasing consensus between countries, agencies, civil society and experts about including universal health coverage (UHC) in the post-2015 sustainable development goals. This has led to extensive debate on how best to define and measure UHC. This brief contributes to this debate by providing the perspective of the Global Network for Health Equity (GNHE), a network that brings together the views and experience of a diverse network of researchers based at country level in Africa, Asia and Latin America. Specifically, this brief presents GNHE's views on how to measure and track a key element of UHC: *access to needed health services for all*. This reflects GNHE researchers' concerns not only with how to facilitate global measurement and comparison of UHC, but also our concern that any global framework should facilitate those at country level to explore critical issues and challenges at the regional, national and sub-national levels.

GNHE recognises that it is challenging to measure access directly and comprehensively. So for pragmatic reasons, we advocate, as others do, that measurement of the actual use of services is for now the only feasible proxy for establishing whether or not there are access gaps, whilst acknowledging that service use is a different concept to service access.

## What have others proposed?

The most detailed proposal for measuring UHC has been put forward by a joint World Health Organisation and World Bank (WHO/WB) working group (published in May 2014). These share many elements of the GNHE approach, whilst differing in some key respects. In particular, while the WHO/WB endorse service access as central to UHC as GNHE does, they propose that the guiding principle should be "... coverage of the population with *essential* health services ..." (our emphasis), which leads them to a focus on measuring coverage of specific services, such as immunisation coverage.

A key limitation of the WHO/WB measurement approach is that it implicitly reduces UHC coverage to a narrow range of services and implies that individuals have rights only to a subset of what some experts might regard as the most cost-effective or health-improving interventions, which is implicit in the use of the word "essential". This inevitably cannot provide a good

indication of the extent to which health services meet the overall health care needs of a country's population. It also means, problematically, that the services which are selected for measurement are heavily influenced by the availability of data on both the numerator (use of services) and denominator (need for care) side of the coverage question.

The *need* for specific health interventions is also particularly challenging to measure, which is why preventive maternal and child health services (e.g., antenatal care and immunisations), where need can be equated simply with membership of a group allowing the denominator to be based on demographic data, end up receiving such emphasis in the resulting indicators. There are much less data on the need for specific treatment interventions in instances where need is defined in relation to illness burden, and correspondingly less emphasis on these in the proposed indicators. A separate problem is that focusing on a few tracer services in an initiative such as the global sustainable development agenda may lead to governments prioritising these services over others, undermining the basic notion of universality in UHC.

Possibly recognizing these limitations, WHO/WB propose two 'composite coverage measures', one for preventive interventions and one for treatment interventions, each of which bundles together a number of individual services (e.g., family planning, antenatal care and immunisations in the preventive index). Nevertheless, this does not eliminate the problem of focusing only on a narrow range of services.

## How does GNHE propose to measure use as a proxy of access?

GNHE proposes that the UHC goal of access to needed services for all be assessed and monitored through the proxy of a *comprehensive* measure of service 'coverage' or use, explicitly recognising that service provision in a UHC context must extend considerably beyond the most essential and cost-effective interventions. This avoids the problem of selecting a limited number of services, largely on the basis of measurability, which implicitly devalues services not selected for measurement. For example, why should diabetes service coverage be regarded as more important than asthma service coverage, simply

because surveys exist to measure the former, while none exist for the latter?

We propose instead to assess the adequacy and equity of *overall* service utilisation. Overall service utilisation is more in line with GNHE's conceptualisation of UHC as striving to provide access for everyone to as wide a range of services as possible, rather than restricting access to an 'essential package of care'. The range of services that is considered necessary to be available to all would vary in relation to what is affordable to a society at a point in time. But at a minimum, everyone should be entitled to comprehensive primary health care services, including core referral services, which should be expanded over time.

To implement this, GNHE proposes that total use of services be measured, whether these are for promotive, preventive, curative, rehabilitative or palliative interventions, according to the average number of outpatient visits per person per year and the average number of hospital discharges per 1,000 population per year. In terms of outpatient services, we propose that only consultations (whether for preventive or curative services) with licensed health care workers, who are trained, registered and recognised by relevant national authorities be taken into account. This recognises that for UHC to be meaningful, access should be to services of sufficient quality to be effective, and respects national norms and practices (e.g., in some countries, traditional medicine practitioners or a range of 'alternative therapists' are formally licensed, trained and recognised in the same way as allopathic practitioners). We propose that consultations with all health care workers that meet these criteria be included (i.e., including categories such as doctors, nurses, community health workers, etc.), regardless of whether they are based in a health facility or in a community.

## What minimum threshold for adequate use is GNHE proposing?

Defining a measure of use is of course not sufficient to assess UHC attainment, and GNHE proposes an approach of defining a minimum threshold for 'adequate use', against which a country's average utilisation rate would be assessed. A country could use a 'norms-based' approach to estimate 'ideal' average utilisation rates in their context, which can be determined on the basis of the country's demographic and epidemiological profile and

current use of different services in well-functioning facilities and/or service protocols, such as immunisation schedules or chronic disease treatment guidelines. However, this is a very resource and data intensive process that may be unfeasible in some low-income countries, would need to be updated on a regular basis to take account of changes in the demographic and epidemiological profile and, importantly in the context of global indicators, cannot be used to generate a single utilisation rate appropriate for all country and health systems contexts.

Fortunately, the observed variation in utilisation rates across advanced countries, generally regarded as having achieved UHC, provides a strong empirical basis for inferring what an appropriate lower bound to a global threshold should be as a proxy for adequate use. The average number of consultations with a doctor reported by OECD countries was 6.7 per person per year in 2009, ranging from less than 3 to 4 in countries such as Finland, New Zealand and Ireland to 13 to 14 in Korea and Japan. Similar ranges in utilisation rates are reported from Asia-Pacific countries.

To set a threshold of utilisation rates to act as a minimum criterion to assess whether a country has adequate access, GNHE is proposing an average utilisation rate of 4 outpatient visits per person per year (*but* not restricted to doctors' visits as in the OECD statistics). As noted this is at the lower bound of utilisation rates in OECD countries. This does not imply a recommendation of such rates as the ideal minimum for all countries, but reflects instead the observation that at rates of use less than this threshold a country is unlikely to have adequate levels of access given what is observed in countries that do. Finally, it is noted that such rates are also achieved in a number of middle-income countries with good coverage (e.g., Sri Lanka has 5–6 visits).

In terms of inpatient services, the average for OECD countries is 158 hospital discharges per 1,000 people, ranging from around a 100 in countries like Canada to over 260 in Austria and France. The average for 18 Asia-Pacific countries is 125 per 1,000 people, again with a wide range. GNHE proposes a minimum threshold for inpatient services of 100 inpatient discharges per 1,000 population, linked to the lower bound for OECD countries (just above 100 in Canada, Spain and Japan). Again many middle income countries with good coverage do achieve such rates, such as Vietnam which reports rates of 120 inpatient discharges per 1,000 population.

These recommended minimum thresholds are also in line with the targets proposed by the WHO, in their 2013 work on measuring service availability and readiness (SARA), of 5 outpatient visits per person and 100 discharges per 1,000 people. It is unclear to us why the WHO has moved away from a comprehensive measure of use in their SARA project to measuring use of a limited range of services in the current WHO/WB UHC measurement proposals.

The measurement of overall utilisation, which includes utilisation at private providers, is feasible through triangulation of data from routine health information systems and household surveys in all countries, certainly far more than would be the case with the proposed WHO/WB indicators. However, there may be a need to revise some household survey questionnaires to ensure that total utilisation is recorded (e.g., some questionnaires restrict utilisation to self-reported acute illness, therefore missing information on utilisation of preventive and sometimes chronic disease treatment services).

## What does GNHE propose to assess equity in use of health services?

GNHE proposes that the second aspect of use relevant to access, which is equity, should be based on disparities in outpatient and inpatient utilisation rates across socio-economic groups. Ideally, the utilisation rates of each group should be assessed relative to that group's need for health services. Although some analytic techniques for such analyses exist (such as the ECuity project's horizontal equity in service use), there are methodological limitations to this measure, and it relies on self-assessed health status data, which are not available in most low- and middle-income countries.

There is overwhelming evidence that lower socio-economic groups generally have a greater need for health services (e.g., bear a greater burden of ill-health, have higher fertility rates). Therefore, GNHE proposes that UHC measurement assess whether the minimum threshold is achieved in all socio-economic groups and that as a minimum, utilisation rates should be at least equal across socio-economic quintiles, whilst acknowledging that ideally use should be pro-poor, i.e., higher in lower socio-economic groups than in richer groups).

## Possible disaggregation in utilisation assessments

To add to the assessment of adequacy and equity in health service use, GNHE proposes that both outpatient and inpatient utilisation rates be disaggregated where possible.

In relation to outpatient services, it is important to ensure that an emphasis is not placed on curative services to the detriment of preventive interventions when attempting to increase average utilisation rates or narrowing differentials in use across socio-economic groups. This indicates the need for more detailed indicators that can supplement the main utilisation indicator, to assess preventive and curative utilisation rates and changes in them over time. Similarly, it would be desirable to monitor trends in inpatient utilisation disaggregated by levels of care in each system (e.g., first level hospitals compared to referral hospitals).

## How should a country be assessed relative to these thresholds?

GNHE does not argue that these thresholds be used as a proxy for achieving UHC (i.e., having utilisation rates of 4 outpatient visits per person does not mean a country has achieved UHC) or as a basis for crude estimation of a country's distance from UHC. For example, if a country has an average of 1 outpatient visit per person per year, the threshold of 4 visits should *not* be used as a basis for saying that the country is only 25% of the way to UHC. Instead, it simply serves as an indication of the magnitude of the gap in access that a country has to cover in order to achieve UHC, whilst the actual numbers can be used to assess progress towards this threshold over time.

A common concern is that increasing average utilisation rate can be achieved by increasing utilisation only amongst the better-off, and indeed some may fear that utilisation thresholds could promote 'over-utilisation' of services. For this reason, GNHE proposes that we should not only be seeking to achieve the minimum thresholds for adequate use at the level of the population as a whole, but also to promote equitable use by ensuring that this minimum threshold is achieved in all socio-economic quintiles. This is particularly important in countries seeking to move towards UHC. Often, improved mandatory prepayment funding yields

the greatest benefits to those who live in areas that are well-resourced with health facilities and personnel, thus exacerbating inequities in utilisation. Increasing average utilisation (for countries below the threshold) is not the only goal. Narrowing the utilisation gap between the rich and the poor is as, if not more, important.

There are equally concerns that these thresholds, being relatively conservative, could engender complacency in countries that have already achieved these utilisation levels, but have arguably not achieved UHC. There is consensus that the sustainable development agenda and associated goals should be applicable to all countries, irrespective of their level of economic development. Many high-income countries have utilisation levels that far exceed the 'adequacy in use' thresholds we have suggested. Within these countries, the equity in use goal should be prioritised, with the caveat that it should not automatically be assumed that differentials should be reduced by 'raising the floor' (i.e. increasing utilisation among the poor) but recognising that in some cases it may be that the 'ceiling should be lowered', or most likely, a combination of these. It is feasible and desirable for countries with utilisation rates exceeding the adequate use threshold to estimate the 'ideal' average utilisation rates within their demographic and epidemiological context, using utilisation norms such as in standard treatment guidelines, and to explore country specific strategies for promoting equitable use.

## Other considerations

This brief presents the GNHE perspective on what measures will be useful in assessing which countries are far from UHC in relation to access to needed health services for all, both in terms of adequacy and equity of current utilisation levels. However, we recognise that these measures provide no indication of the quality or effectiveness of the services used, reflecting the lack of robust and feasible options at the current time. This is an area that requires further work and where country level assessments are required.

A key concern raised in current debates about measuring progress to UHC is that the plight of those who are not able to use the health services they need is not reflected. We believe that high levels of unmet need will be reflected in low overall utilisation rates; where utilisation rates are below the minimum threshold, this is likely to reflect not only infrequent use of services, but also the existence of unmet need. However, we recognise that the measures we advocate provide no insights into why utilisation is inadequate or inequitable and so do not provide guidance to national policy-makers on how to address these challenges. Again, this requires detailed assessment of access barriers within each country, and indeed within different communities, to assist in identifying effective ways to address these barriers.

Country specific utilisation thresholds are desirable in the long-term given the demographic and epidemiological variation across countries, e.g., higher outpatient and inpatient utilisation rates are to be expected in countries with a high proportion of older people. Nevertheless, we believe that focusing on overall utilisation rates is in line with the concept of universal health coverage, is meaningful to all countries at all stages of development, and is feasible to measure in all countries.

## References

- WHO (2013). *Service Availability and Readiness Assessment (SARA). An annual monitoring system for service delivery. Reference Manual*. World Health Organization. Version 2.1. September 2013.  
[http://apps.who.int/iris/bitstream/10665/104075/1/WHO\\_HIS\\_HSI\\_RME\\_2013\\_1\\_eng.pdf](http://apps.who.int/iris/bitstream/10665/104075/1/WHO_HIS_HSI_RME_2013_1_eng.pdf)
- WHO/WB (2014). *Monitoring progress towards universal health coverage at country and global levels. Framework, measures and targets*. World Health Organization and International Bank for Reconstruction and Development/ The World Bank 2014. May 2014.  
[http://apps.who.int/iris/bitstream/10665/112824/1/WHO\\_HIS\\_HIA\\_14.1\\_eng.pdf](http://apps.who.int/iris/bitstream/10665/112824/1/WHO_HIS_HIA_14.1_eng.pdf)

## Acknowledgments

This briefing document is part of a series produced by GNHE (the Global Network for Health Equity) to support countries in the measurement of their progress towards universal health coverage. The focus is on making practical suggestions, given current information constraints.

The work of GNHE and this series is funded by a grant from IDRC (the International Development Research Centre) through Grant No. 106439.

## More about GNHE ...

GNHE is a partnership formed by three regional health equity networks – SHIELD (Strategies for Health Insurance for Equity in Less Developed Countries Network in Africa), EQUITAP (Equity in Asia-Pacific Health Systems Network in the Asia-Pacific, and LANET (Latin American Research Network on Financial Protection in the Americas). The three networks encompass more than 100 researchers working in at least 35 research institutions across the globe.

GNHE is coordinated by three institutions collaborating in this project, namely: the Mexican Health Foundation (FUNSALUD); the Health Economics Unit of the University of Cape Town in South Africa; and the Institute for Health Policy based in Sri Lanka.

More information on GNHE, its partners and its work can be found at <http://gnhe.org>

## “Universal Health Coverage Assessment” country profiles (December 2014)

### Indonesia

*L. Trisnantoro, T. Marthias and D. Harbianto*

### People’s Republic of Bangladesh

*Ahmed Mustafa and Tahmina Begum*

### Peru

*Janice Seinfeld and Nicolas Besich*

### South Africa

*Diane McIntyre, Jane Doherty and John Ataguba*

### Taiwan

*Jui-fen Rachel Lu*

### Tanzania

*Gemini Mtei and Suzan Makawia*

### Uganda

*Zikusooka CM, Kwesiga B, Lagony S, Abewe C*

---