An updated method for the essential health services coverage index

Custodian agency: WHO
Current Tier: I
Improved Method, Tier: I

17 January 2019

World Health Organization
Why use the updated index instead of the earlier one?

• **More valid methodology** follows international standards – satisfies tier 2 criteria (for SDG3.8.1)
  – Better alignment to SDG 3.8: measures **effective** coverage (face validity)
  – Better measurement framework: promotion to palliation across life course (content validity)
  – Better accuracy: 15/16 vs 8/16 known pairs of countries correctly identified (construct validity)

• **Sufficient data availability** for global SDG reporting – satisfies tier 1 criteria (for SDG3.8.1)

• **More useful to countries** to achieve SDG 3.8 by 2030
Extensive consultative process

WHO Technical programmes proposed targets & triple billion (3.8 incl. UHC) methods

Director General constitutes ERG. ERG begins deliberations 1st report

WHO Impact Framework part of programme planning & budget

GPW 13 approved, MS engagement, refined methods & Taskforce report posted

ERG Taskforce & WHO Secretariat meeting in Geneva to finalize methods

GPW 13 measurement system finalized

ERG meeting & constitution of Taskforce

IAEG-SDG (UHC index) presentation

ERG Taskforce report

IAEG-SDG (UHC index) web call

PBW 13 measurement system finalized

Special EB session- triple billion (incl. UHC) measurement & WHO Impact Framework targets & SDG alignment

Informal web-based MS & partners consultation

Preliminary report- ‘Triple billion can be measured’

ERG Taskforce & WHO secretariat, regions meeting in Seattle, triple billion methods (incl. UHC) & equity discussed

Refinement continued, incl. MS consultation at Regional Committee meetings

Series of consultations on triple billion methods with ERG Taskforce & WHO secretariat

Informal web-based MS & partners consultation

Refinement continued, incl. MS consultation at Regional Committee meetings

PAHO consultation & MS mission briefing

African Union-Statistical Commission, Khartoum supportive

UHC 2030 & SDG+3 action plan partners briefing
Framework (31 indicators)

Service coverage

- Promotion
- Prevention
- Treatment
  - Communicable diseases & MCH
  - NCDs
- Rehabilitation
- Palliation

Life course

Reproductive and newborn: 6 indicators +1 aspirational

< 5 years: 5 indicators

5-19 years: 6 indicators

20-64 years: 13 indicators +4 aspirational

65+ years: 1 indicator +3 aspirational
Data flow

- Input data collected from countries’ original sources, UN system databases, publicly available databases
- Checked for accuracy, data quality, and validation in compliance with Guidelines for Accurate and Transparent Health Estimates Reporting (GATHER)
- Preliminary country estimates generated for individual tracer indicators
- Indicators combined into an overall index
- Country consultation and validation of the draft estimates
- Country feedback incorporated for final estimates

WHO is aligned with IAEG-SDGs dataflow workgroup guidelines
**Estimation process**

1. **Indicator type**
   - Fraction of population covered by intervention
   - Mortality to Incidence ratio due to health condition

2. **Rescaled using the observed range**

3. **UHC proxy indicator scores**

4. **Combine proxies based on health gain**

5. **UHC service coverage (Combined into single index)**

6. **Health gain weights (Grouped into quintiles)**

7. **Calculate health gains** (Depending on epidemiologic burden in country)

8. **Burden of health condition**

9. **Intervention efficacy weight**

10. **Start**

11. **Input**

12. **Process**

13. **Results**
Data availability

- 21 of 31 indicators associated with Tier 1 indicators
- 25 of 31 meet Tier 1 criteria have data from at least 50% of countries and 50% population
- 6 of 31 have data from 50% of the world population

WHO is ready to report on SDG 3.8.1 using updated method
Updated UHC index more useful for countries

Countries with highest UHC index values

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<thead>
<tr>
<th>Service Coverage</th>
<th>EC antenatal care</th>
<th>EC delivery promotion</th>
<th>EC maternal, antenatal and postnatal care</th>
<th>EC modern contraception</th>
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Countries with lowest UHC index values

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Updated UHC index differentiates between countries

High income

Middle income
Updated UHC service coverage index is sensitive to change
Countries can measure the updated index

- WHO in collaboration with NSOs, MoH and stakeholders, UN partners, technical expert groups will strengthen capacity to generate, analyze and use data to report on health and health-related SDGs

- WHO will provide transparent data trails and methods

- WHO will provide technical support to countries as needed:
  - Tools for calculation
  - Adaptation to country needs
Backup slides
SDG target and indicator

• **Target 3.8:** Achieve universal health coverage, including financial risk protection, access to **quality** essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all.

• **Indicator 3.8.1:** Coverage of essential health services (defined as the average coverage of essential services based on **tracer** interventions that include reproductive, maternal, newborn and child health, infectious diseases, non-communicable diseases and service capacity and access, among the general and the most disadvantaged population).

Source: A/RES/71/313 Official list of global Sustainable Development Goal Indicators
Online Member State consultation process
(26 October – 16 November, 2018)

46 Member States responded with comments

40+ Member States agreed with:

- HALE as an appropriate overarching indicator
- 3 indices to measure the triple billion targets
- 46 programmatic targets to drive country performance
Method of calculation

Potential health gain associated with an intervention can be quantified as the total related burden in the absence of the intervention, subtracting the portion that is unavertable due to inefficacy:

$$\text{maximum burden}_{ctpi} = \frac{\text{DALY}_{ctpi}}{1 - \text{coverage}_{ctpi} \times \text{efficacy}_{pi}}$$

$$\text{minimum burden}_{ctpi} = \text{maximum burden}_{ctpi} \times (1 - \text{efficacy}_{pi})$$

$$\text{health gain}_{ctpi} = \text{maximum burden}_{ctpi} - \text{minimum burden}_{ctpi}$$
Method of calculation

- Once an estimate is produced for health gain associated with UHC service coverage proxy, it is combined to create a summary measure:

\[ \text{health gain fraction}_{ctpi} = \frac{\text{health gain}_{ctpi}}{\sum_{pi} \text{health gain}_{ctpi}} \]

\[ \text{health gain weight}_{qct} = \frac{1}{n} \sum_{pi=1}^{n} \text{health gain fraction}_{ctpiq} \]

\[ \text{UHC service coverage}_{ct} = \sum_{pi} (\text{coverage}_{ctpi} * \text{health gain weight}_{qct}) \]

Each proxy indicator that is not in coverage units* is rescaled as follows:

\[ \text{rescaled indicator} = \frac{\text{indicator} - 2.5\text{th percentile}}{97.5\text{th percentile} - 2.5\text{th percentile}} \]

* i.e., MMR, MIRs, etc.