# Revised Framework for Monitoring Progress towards Universal Health Coverage in Bangladesh

## Contents

## Introduction

Universal health coverage (UHC) has become a major goal for health reform in many countries and a priority objective of WHO. The UHC is defined as ensuring that all people have access to needed health services (including prevention, promotion, treatment, rehabilitation and palliation) of sufficient quality to be effective while also ensuring that the use of these services does not expose the user the financial hardship [1].

UHC is comprised of two main components; which are quality and essential health service coverage as well as financial coverage for all population. UHC monitoring has been widely varying in different countries and reformed over time with the changing health systems. But it has been a process rather than a product that must be sensitive to constantly evolving demographic, technological, and epidemiological scenes. Hence, even the countries with the strongest or long established health system struggle to maintain their status of coverage in the face of constantly changing political, financial, and epidemiological situation of those countries. [2]

UHC brings hope of better health and protection for everyone in the world regardless of their financial background in the light of all health related Sustainable Development Goals (SDGs). It is built on the constitution of health being a fundamental human right declared by WHO in 1948 and the Health for All agenda declaration of Alma Ata in 1978. The three main objectives of UHC revolve around;

1. Equity in access to health services

2. Quality of services
3. Protection against financial risk.

A broad consensus on the importance of UHC has been building since 58th world health assembly resolution in 2005. United Nations agencies, development banks, bilateral donors and foundations providing financial support and capacity building workshops. In parallel to that, a series of consultations and conferences have improved our knowledge of the challenges regarding UHC and possible solutions revolving some calls for action.

The Government of Bangladesh has made strong commitment to achieve SDGs and ensure UHC through a monitoring framework. In case of many indicators, data is not available. In many cases, data produced by national and sub national surveys are available but there are gaps in the data. It is essential to get the proper standing of the health estimates at country level to come up with policies and planning. A lack of coordination between different Government bodies, data collecting from different institutes and duplication of data collection are held as the major causes for these gaps. Producing reliable and valid data maintaining the methodology is very important for monitoring progress towards SDGs and UHC. Therefore, it becomes mandatory to have a standard tracking system at country level through recommendations and agreement between different stakeholders and policy makers.

## Tracking of UHC in Bangladesh

Tracking inequalities and targeting disadvantaged groups in health service coverage is central to monitoring progress towards UHC. Currently national health information systems and periodic surveys are inadequate for capturing data disaggregated by socio-demographics factors. The SDG target 17.18 emphasizes the importance for countries to improve data and statistics available by multiple equity dimensions in all sectors, including health. Measuring the degree of inequity in service coverage is not currently feasible for most indicators, and data is generally only available for indicators in reproductive, maternal, newborn and child health using data from international household health surveys.
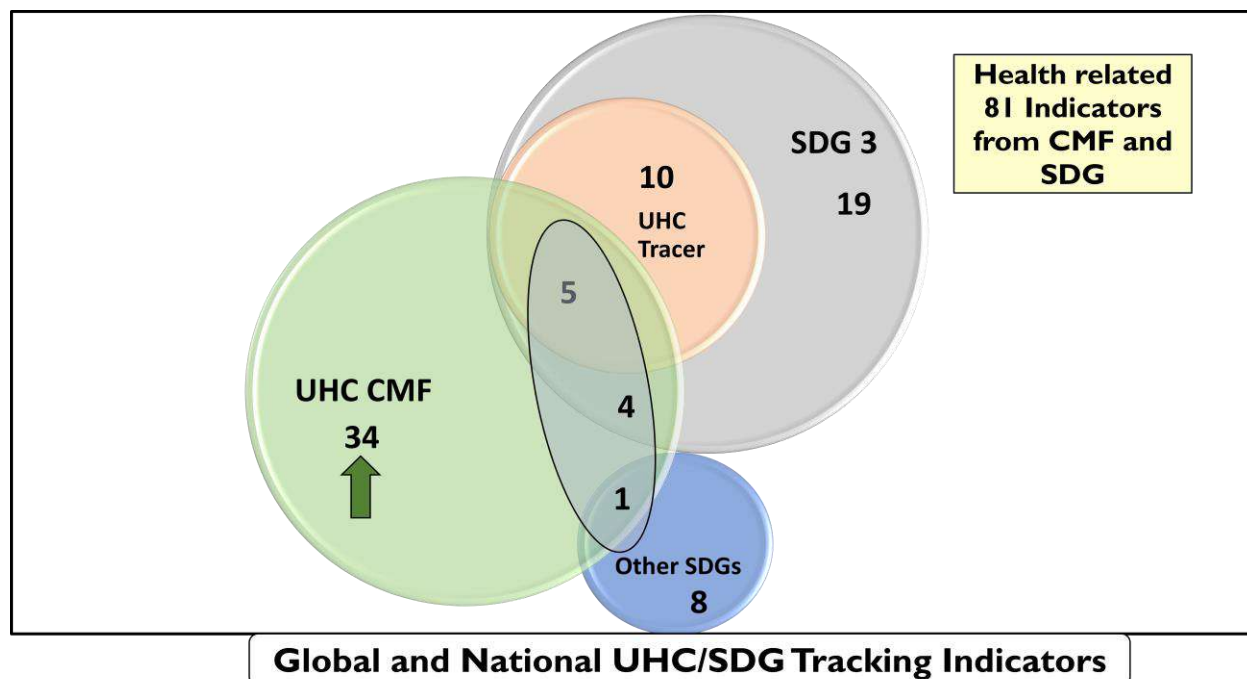
To monitor the progress towards UHC, the Health Economics Unit (HEU) of Ministry of Health and Family Welfare (MOHFW) of Government of Bangladesh developed a monitoring framework with a set of health indicators with technical assistance of the WHO country office of Bangladesh. The methodology involved reviewing different strategic documents, reports and policies and analysis of health information tools. Multiple discussions with different stakeholders were also used to develop this framework. However, these indicators were adapted from Millennium Development Goals (MDG). Forty three indicators were proposed in the previous framework. To align with SDG there was a necessity identified to revise this country monitoring framework developed by HEU.

## Review the existing HEU UHC-Country Monitoring Framework
### Methodology

USAID supported "Research for Decision Maker's (RDM) Activity ", icddr,b, has an 'Independent Reference Group' (IRG) for tracking and monitoring progress towards UHC in Bangladesh. Through several consultative meetings among the relevant stakeholders, the IRG has identified, exercised, and listed 81 possible indicators from HEU UHC-Country Monitoring Framework, global UHC tracer and health-related SDGs (Goal 2, 3, 4, 5, 6, 8, and 16) regarding Bangladesh UHC perspective (**figure xx**). The

IRG has reviewed all the existing data sources, methodologies, and estimates of the selected indicators. Then, an 'Indicator Matrix' has been developed in details including definition, available data sources, estimate of the sources, methods of estimation, study design and sampling technique, sample size for measuring the estimates etc.



**Global and National UHC/SDG Tracking Indicators**

## Gap Analysis

A gap analysis has been performed for the listed 81 indicators through reviewing the 'Indicator Matrix'. The major gap was found to be unavailability of the data which was the most frequent bottleneck among the indicators. Unavailability of the latest data was another shortcoming as well as partial availability of some data since in this type of situation the data are not often usable.

National data is not available for some of the indicators such as "social HI contribution" (SDG 3.8.1). For other indicators, there is no national estimates readily available, but it is a minor issue since they can be produced using the existing data sources.

Some indicators are found to have more than one gap and need clarification in many areas. Lack of standard definition is observed for a significant number of indicators, where the indicators should be redefined for country context. For example, in case of prevalence of HIV among Most-At-Risk-Population (MARP), no standard definition of MARP is provided in the context of Bangladesh. Moreover, estimates are not available for prisoners in this country.

Threshold levels based on this country's context are also needed to be clearly defined for many of the health financing related indicators. However, methodologies should be updated at national level to track few of the indicators.. Most of the discussed discrepancies are assumed to exist because of the sample

variation primarily, however, detailed investigation is the key to address the gaps and make these indicators functional to efficiently track progress towards UHC in Bangladesh.

**Table 1: Summary of the identified gaps in the previous HEU UHC-Country Monitoring Framework**

| Need to Redefine | • District/UPZ hospital and below have 1 Obs/Gynae + 1 anesthesiologist<br>• Percentage of hypertensive and diabetic patient taking treatment |
|---|---|
| Clarification | • Share of population (%) lack adequate healthcare due to financial hardship<br>• Share of population (%) fall into poverty due to OOPS<br>• Share of households (%) facing catastrophic health spending<br>• Prevalence of HIV among Most-At-Risk-Population (MARP)<br>• Case fatality rate among hospitalized ARI cases<br>• TB prevalence rate/100,000 population<br>• Tobacco Prevalence Rate |
| Unavailability of Data Source | • Percentage of health facilities having electronic record (EHR)<br>• Percentage of clients expressing satisfaction with health facilities<br>• Index of service readiness & availability<br>• Median drug price ratio for tracer drug<br>• TB treatment success rate |
| Others | • Social HI contribution  (per capita as % of THE) |

## Revision of the HEU UHC-Country Monitoring Framework

After performing the gap analysis, a workshop on "Review of Universal Health Coverage (UHC) Monitoring Framework" was held on March 4, 2019 under the chairmanship of Director General, HEU, MOHFW. The workshop was organized by HEU, MOHFW in collaboration with the Independent Reference Group (IRG) under USAID's Research for Decision Makers (RDM) Activity of icddr,b.

During this workshop participants were divided in groups under four thematic areas: –   Reproductive, Maternal, Neonatal, and Child Health and Family Planning, , Health System and Health Workforce, Health Financing and Infectious and Non-communicable Diseases. The groups came up with the specific recommendations for each of the indicators and other health related indicators for the revised UHC-country monitoring framework.

Then, the IRG collaboration with HEU has exercised and listed 27 out of 81 possible indicators for the revised UHC-Country Monitoring Framework. After that, another workshop and a consultative meeting took place following this workshop to make consensus for the listed 27 possible indicators.

## Revised HEU UHC-Country Monitoring Framework for Bangladesh

After two workshops and one consultative meeting with the stakeholders hosted by HEU and icddr,b, a set of 27 indicators have been suggested for monitoring progress towards UHC in Bangladesh. This set of indicators has addressed the gaps and issues identified in the previous UHC-country monitoring framework. These indicators have been selected focusing on the current priorities and needs of the country. Moreover, the availability of data was a consideration for keeping the indicators on this list. If

an indicator is deemed very important for the country context but the data is not readily available the stakeholders decided to keep this indicator. The indicators in the revised list are further categorized in three different categories:

1. Service Coverage indicators
2. Financial Risk Protection indicators
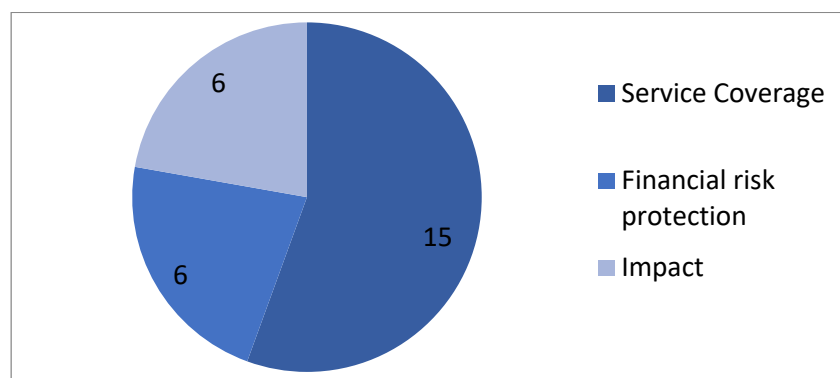3. Impact level indicators



**Figure 1 Number of indicators in each sub-category**

**Table 2: List of indictors for the revised framework for monitoring UHC in Bangladesh**

| Service Coverage Indicators | Financial Risk Protection Indicators | Impact Indicators |
|---|---|---|
| Number of currently registered doctors per 10,000 population | Public health spending as a % of GDP | Percentage of incident TB cases that are detected |
| Number of currently registered nurses & midwives per 10,000 population | Health insurance coverage | Neonatal mortality rate |
| District and UPZ hospital have at least 1 Obs/Gynae + 1 anaesthesiologist | Share of health spending in total government expenditure | Total fertility rate |
| Number of Hospital beds per 10,000 population | Health expenditure per capita | Maternal mortality ratio |
| Proportion of public health facilities that have a core set of relevant essential medicines | OOPS for health (as % of THE) | % of stunted among under 5 children |
| % of service provider positions functionally vacant in district and upazila-level public facilities, by category (physician, nurse/midwife) | Proportion of population with catastrophic expenditure on health as a share of total household expenditure or income | Prevalence of HIV among MARP |
| Service readiness for RMNCH-FP | | |
| % of ever married women aged <50 years who received quality ANC care | | |
| Measles-Rubella (MR) immunization coverage among children under 12 months | | |

| | | |
|---|---|---|
| Contraceptive prevalence rate for modern method | | |
| Percentage of households using improved sanitation facilities | | |
| Tobacco: Age-standardized prevalence of adults >=15 years smoking tobacco in last 30 days | | |
| Proportion of births attended by skilled health personnel | | |
| Percentage of diabetic patients aware, treating and under control | | |
| Percentage of hypertensive patients aware, treating and under control | | |

| SL No. | Tracer Indicator | Available data source | Estimates | Publication Year | Periodicity of the survey | Data Availability | Research Design/Data collection methods | Sampling technique |
|---|---|---|---|---|---|---|---|---|
| 1 | Number of currently registered doctors per 10,000 population | Health Bulletin | 6.3 | 2018 | 1 | Readily available | Records from HB | Not applicable |
|  |  | HRH country profile (GHO) | 5.3 | 2017 | Not regular |  | Records | Not applicable |
| 2 | Number of currently registered Nurses & Midwives per 10,000 population | Health Bulletin | 3.0 | 2017 | 1 | Readily available | Records | Not applicable |
|  |  | HRH country profile (GHO) | 3.1 | 2017 | Not regular |  | Records | Not applicable |
| 3 | District and UPZ hospital have 1 Obs/Gynae + 1 anaesthesiologist | BHFS | TBE | 2017 | 3 |  | Cross sectional and Facility assessment using Service Provision | Stratified random sampling |

Table 3: UHC Monitoring Framework Indicators with data

| SL No. | Tracer Indicator | Available data source | Estimates | Publication Year | Periodicity of the survey | Data Availability | Research Design/Data collection methods | Sampling technique |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Assessment (SPA) tool | |
| 4 | Number of Hospital beds per 10,000 population | Health Bulletin | 8.8 | 2018 | 1 | Readily available | Records | Not applicable |
| | | GHO | 8 | 2015 | Not regular | | Records | Not applicable |
| 5 | Proportion of public health facilities that have a core set of relevant essential medicines | Not available | Not available | Not available | Not available | Not available | Not available | Not available |
| 6 | Health insurance coverage (to be revised) | BNHA 1997-2012 | TBE | 2015 | Not applicable | Readily available | Not applicable | Not applicable |
| 7 | Health expenditure as % of GDP | BNHA 1997-2012 | 3.50 | 2015 | Not applicable | Readily available | Not applicable | Not applicable |

| SL No. | Tracer Indicator | Available data source | Estimates | Publication Year | Periodicity of the survey | Data Availability | Research Design/Data collection methods | Sampling technique |
|---|---|---|---|---|---|---|---|---|
| | | BNHA 1997-2015 | 3.00 | Not available | Not applicable | Readily available | Not applicable | Not applicable |
| | | GHO | 2.60 | 2015 | Not applicable | Readily available | Not applicable | Not applicable |
| 8 | Service readiness for RMNCH-FP | BHFS | TBE | 2017 | 3 | | Cross sectional and Facility assessment using Service Availability and Readiness Assessment (SARA) tool | Multi-stage stratified random sampling |
| 9 | Share of health spending in total government expenditure | National Budget FY 2019-20 | 5.63 | 2019 | Not applicable | Not available | Not applicable | Not applicable |
| 10 | Health expenditure per capita | GHO | 2,544.00 | 2015 | Not applicable | Readily available | Not applicable | Not applicable |

| SL No. | Tracer Indicator | Available data source | Estimates | Publication Year | Periodicity of the survey | Data Availability | Research Design/Data collection methods | Sampling technique |
|---|---|---|---|---|---|---|---|---|
| | | BNHA 1997-2012 | 2,144.00 | 2015 | Not applicable | Readily available | Not applicable | Not applicable |
| | | BNHA 1997-2015 | 2,882.00 | Not available | Not applicable | Readily available | Not applicable | Not applicable |
| 11 | OOPS for health (per capita as % of THE) | BNHA 1997-2012 | 63.31 | 2015 | Not applicable | Readily available | Not applicable | Not applicable |
| | | BNHA 1997-2015 | 66.90 | Not available | Not applicable | Readily available | Not applicable | Not applicable |
| 12 | % of ever married women aged <50 years who received quality ANC care | BDHS | 31.2% | 2014 | | Readily available | Cross-sectional and Household survey | 2-Stage Stratified cluster sampling |
| | | MICS | 24.7% | 2013 | 10 | | Cross-sectional and Household survey | 2-Stage Stratified cluster sampling |
| | | BMMS | 37.2% | 2016 | | | Cross-sectional and Household survey | 2-Stage Stratified cluster |

| SL No. | Tracer Indicator | Available data source | Estimates | Publication Year | Periodicity of the survey | Data Availability | Research Design/Data collection methods | Sampling technique |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | sampling |
| | | UESDS | 32.0% | 2016 | | | Cross-sectional and Household survey | 2-Stage Stratified cluster sampling |
| 13 | % of service provider positions functionally vacant in district and upzila-level public facilities, by category (physician, nurse/ midwife) | BHFS | Physicians-38% | 2014 | 3 | | Cross-sectional and Facility assessment using Service Provision Assessment (SPA) tool | Stratified random sampling |
| | | | Nurses/midwifes-19% | 2014 | 3 | | Cross-sectional and Facility assessment using Service Provision Assessment | Stratified random sampling |

| SL No. | Tracer Indicator | Available data source | Estimates | Publication Year | Periodicity of the survey | Data Availability | Research Design/Data collection methods | Sampling technique |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | (SPA) tool | |
| | | | Paramedics-0.5% | 2014 | 3 | | Cross-sectional and Facility assessment using Service Provision Assessment (SPA) tool | Stratified random sampling |
| 14 | Percentage of incident TB cases that are detected (Tuberculosis incidence per 100,000 population) | NTP GTBR | 287.00 | 2016 | 1 year | Partially available | Patients registered in National TB control program | |
| 15 | Tobacco: Age-standardized prevalence of adult | WHO | 44.7 | 2016 | | Readily available | | |

| SL No. | Tracer Indicator | Available data source | Estimates | Publication Year | Periodicity of the survey | Data Availability | Research Design/Data collection methods | Sampling technique |
|---|---|---|---|---|---|---|---|---|
| | >=15 years smoking tobacco in last 30 days | GHO | 22.9 | 2016 | | | | |
| | | GATS | 35.3 | 2017 | | | Cross-sectional and Household interview | Multistage startified cluster sample |
| 16 | Contraceptive prevalence rate for modern method | BDHS | 54.1% | 2014 | | Readily available | Cross-sectional and Household survey | 2-Stage Stratified cluster sampling |
| | | MICS | 59.3% | 2013 | 10 | | Surveillance and Household survey | 2-Stage Stratified cluster sampling |
| | | UESDS | 55.6% | 2016 | | | Cross-sectional and Household survey | 2-Stage Stratified cluster sampling |

| SL No. | Tracer Indicator | Available data source | Estimates | Publication Year | Periodicity of the survey | Data Availability | Research Design/Data collection methods | Sampling technique |
|---|---|---|---|---|---|---|---|---|
| | | SVRS | 61.6% | 2018 | | | | |
| | | World Bank | 54.0% | 2014 | | | | |
| 17 | Proportion of births attended by skilled health personnel | BDHS | 42.10% | 2014 | 3 | Readily available | Cross-sectional and Household survey | 2-Stage Stratified sampling |
| | | MICS | 43.50% | 2013 | 10 | | Cross-sectional and Household survey | 2-Stage Stratified cluster sampling |
| 18 | % of HH have using improved sanitation | SVRS | 78.1% | 2018 | 1 | Readily available | Surveillance Household interview | Integrated Multipurpose sampling |
| | | UESDS | 61.4% | 2017? (2016) | 3 | | Cross-sectional and Household interview | Two-stage stratified cluster sampling |

| SL No. | Tracer Indicator | Available data source | Estimates | Publication Year | Periodicity of the survey | Data Availability | Research Design/Data collection methods | Sampling technique |
|---|---|---|---|---|---|---|---|---|
| | | BDHS | 47.8% | 2014 | | | | |
| | | MICS | 55.9% | 2012-2013 | 3 | | Cross-sectional and Household interview | Two-stage stratified cluster sampling |
| 19 | Measles-Rubella (MR) immunization coverage among children under 12 months | BDHS | 79.90% | 2014 | | Readily available | Cross-sectional and Household survey | 2-Stage Stratified sampling |
| | Proportion of population with catastrophic expenditure on health as a share of total household expenditure or income | HIES 2010 | TBE | 2011 | Not applicable | Partially available | Cross-sectional and Household interview | Two-stage stratified cluster sampling |

| SL No. | Tracer Indicator | Available data source | Estimates | Publication Year | Periodicity of the survey | Data Availability | Research Design/Data collection methods | Sampling technique |
|---|---|---|---|---|---|---|---|---|
| 21 | Prevalence of HIV among MARP | UNAIDS | Female sex workers(FSW): **0.2%** Men who have sex with men(MWM):**0.2%** People who inject drugs(PWID): **1.1%(2011**) **18.1%(2016)** Transgender people (TG): **1.4%** Prisoners: NA | HIV Surveillance, 2016 **(FSW, PWID)** Serological Survey 2015 (unpublished) **(MWM, TG)** National HIV Serological Surveillance, 9th Round Technical Report, 2011**(PWID)** Serological surveys and Global AIDS Monitoring | Serological survey: 1998-2002: 4 rounds 2003-04: 5th round 2004-07: 6-8 round 2011: 9th round (last) HIV Surveillance: yeraly Serological surveys and Global AIDS Monitoring: 1 year | Partially available | Cross-sectional Sentinel Surveillance and 1. Nationally representative, population-based sample surveys. ʃ2. Behavioural surveillance surveys. ʃ3. Specially designed surveys and questionnaires, including surveys of specific | Sentinel site random sampling |

| SL No. | Tracer Indicator | Available data source | Estimates | Publication Year | Periodicity of the survey | Data Availability | Research Design/Data collection methods | Sampling technique |
|---|---|---|---|---|---|---|---|---|
| | | | | 2018 **(ALL)** | | | population groups (for example, specific service coverage surveys). ʃ4. National HIV estimates from Spectrum software | |
| 22 | Percentage of hypertensive patients receiving treatments (to be revised) | BDHS | 66.04 | 2011 | 5 years | Partially available | Cross-sectional and Household interview | 2-Stage Stratified sampling |
| 23 | Percentage of diabetic patients awrae, treating and under control | BDHS | TBE | 2011 | 5 years | Partially available | Cross-sectional and Household interview | 2-Stage Stratified sampling |

| SL No. | Tracer Indicator | Available data source | Estimates | Publication Year | Periodicity of the survey | Data Availability | Research Design/Data collection methods | Sampling technique |
|---|---|---|---|---|---|---|---|---|
| | (10-15) | | | | | | | |
| 24 | Prevalence of stunting (height for age <-2 standard deviation from the median of the World Health Organization (WHO) Child Growth Standards) among children under 5 years of age | BDHS | 36.1 | 2014 | | Readily available | Cross-sectional and Household interview | 2-Stage Stratified sampling |
| | | Food Security and Nutrition Surveillance Project (FSNSP) | 35.0 | 2015 | | | Cross-sectional and Household interview | Four-stage sampling design |
| | | MICS | 42.0 | 2012-2013 | | | Cross-sectional and Household interview | 2-Stage Stratified cluster sampling |

| SL No. | Tracer Indicator | Available data source | Estimates | Publication Year | Periodicity of the survey | Data Availability | Research Design/Data collection methods | Sampling technique |
|---|---|---|---|---|---|---|---|---|
| 25 | Maternal mortality ratio | BMMS | 196 | 2016 | | Readily available | Cross-sectional and Household interview | 2-Stage Stratified cluster sampling |
| | | SVRS | 169 | 2018 | 1 | | Surveillance and Household survey | Integrated Multipurpose sampling |
| | | World Bank | 176 | 2015 | | | | |
| 26 | Neonatal mortality rate | SVRS | 16 | 2018 | 1 | Readily available | Surveillance and Household survey | Integrated Multipurpose sampling |
| | | BDHS | 28 | 2014 | | | Cross-sectional and Household interview | 2-Stage Stratified sampling |
| | | World Bank | 20.1 | 2016 | | | | |

| SL No. | Tracer Indicator | Available data source | Estimates | Publication Year | Periodicity of the survey | Data Availability | Research Design/Data collection methods | Sampling technique |
|---|---|---|---|---|---|---|---|---|
| 27 | Total fertility rate | BDHS | 2.3 | 2014 | | Readily available | Cross-sectional and Household interview | 2-Stage Stratified sampling |
| | | SVRS | 2.05 | 2018 | 1 | | Surveillance and Household survey | Integrated Multipurpose sampling |
| | | MICS | 2.3 | 2013 | 10 | | Cross-sectional and Household interview | 2-Stage Stratified cluster sampling |
| | | World Bank | 2.1 | 2016 | | | | |
| | | GBD | 1.9 | 2016 | | | | |

## Conclusion

Bangladesh's revised UHC monitoring framework adopted the indicators recommended by the global-level UHC framework and also by country experts. The previously identified gaps have been addressed in the new framework. This comprehensive set of indicators is expected to help Bangladesh to track its progress toward achieving UHC.

**Recommendations for Monitoring Progress towards UHC**

- Capacity building of HEU, MOHFW in measurement methods for financial risk protection
- Equity analysis should be done for the revised UHC monitoring tools
- The Government of Bangladesh (GoB) has established the web portal 'SDG Tracker' (www.sdg.gov.bd), aiming to strengthen timely data and enhance achievement and monitoring of the SDGs. The IRG could feed data regularly to policy maker through the 'SDG Tracker' on UHC progress which help policy maker to take decision.
- The IRG could prepare a dashboard of UHC monitoring tools under the USAID supported "Research for Decision Maker's (RDM) Activity" website

## References

1. https://www.who.int/healthsystems/universal_health_coverage/en/
2. The world health report. Health systems financing: the path to universal coverage. Geneva: World Health Organization; 2010 (http://www.who.int/whr/2010/en/, accessed 20 April 2015).

## Annexes

Annex 1: Participants List of the workshop on "Review of Universal Health Coverage Monitoring Framework

| Serial | Name | Designation | Organization |
|--------|------|-------------|--------------|
| 1 | Dr. Abul Kalam Azad | Director General | DGHS |
| 2 | Dr. Mohd. Shahadt Hossain Mahmud | Director General (Additional Secretary) | HEU |
| 3 | Dr. Md. Aminul Hasan | Director (Hospital) | DGHS |
| 4 | Dr. Masud Reza Kabir | Line Director, CBHC, DGHS | DGHS |

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| 37 | Dr. Md. Nurul Amin | Deputy Director | HEU |
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| 43 | Mr. Md. Azmal Kabir | National Coordinator | HEU |
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| 49 | Tahmina Begum | Consultant | World Bank |
| 50 | Mr. Shayan Ahmed | Consultant | World Bank |
| 51 | Ms. Atia Hossain | Consultant | World Bank |
| 52 | Farzana Akter | National Consultant Planning, Monitoring and Reporting | WHO |
| 53 | Dr. Md.Touhidul Islam | NPO-Health Financing | WHO |
| 54 | Golam Kibria | | Measure Evaluation |
| 55 | Dr. Zahedul Quayyum | Professor | BRAC James P Grant School of Public Health |
| 56 | Dr. Ahmed Al-Sabir | Independent Health Consultant | |
| 57 | Dr. Hossain Zillur Rahman | Executive Chairman | PPRC |
| 58 | Dr. Ramiz Uddin | Head of Results Management and Data | a2i, Prime Minister's Office |
| 59 | Ms. Jinia Alam | National Consultant | a2i, Prime Minister's Office |
| 60 | Nazmul Kabir | Deputy Director-MIS | Save the Children |
| 61 | Yukie Yoshimura | Expert | JICA |
| 62 | Zahirul Islam | Health Advisor | Embassy of Sweden |
| 63 | Dr. Mohammad Hussain | | Marie Stopes |
| 64 | Dr. Momena Khan | Health Advisor | Canadian Field Survey |
| 65 | Md. Alamgir Hossen | Deputy Director | BBS |
| 66 | Dr. Syed Shahadat Hossain | Professor | ISRT, University of Dhaka |
| 67 | Dr. Syed Abdul Hamid | Professor | IHE, University of Dhaka |

| 68 | Dr. Peter Kim Streatfield | Emeritus Scientist | HSPSD, icddr,b |
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| 70 | Dr. Quamrun Nahar | Senior Director (Acting) | HSPSD, icddr,b |
| 71 | Dr. Mahbub E Elahi Chowdhury | Senior Scientist | HSPSD, icddr,b |
| 72 | Anisuddin Ahmed | Assistant Scientist | MCHD, icddr,b |
| 73 | Md. Moinuddin Haider | Research Investigator | HSPSD, icddr,b |
| 74 | Md. Ashraful Alam | Statistician | NCSD, icddr,b |
| 75 | Ali Ahmed | Research Investigator | MCHD, icddr,b |
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Annex 2: **Reference Sheet for UHC Indicators:**

## 1. Maternal Mortality Ratio

1. **SDG Number**: 3.1.1

2. **Indicator name**: Maternal Mortality Ratio

3. **Definition:** The annual number of female deaths from any cause related to or aggravated by pregnancy or its management (excluding accidental or incidental causes) during pregnancy and childbirth or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, expressed per 100,000 live births, for a specifies time period (WHO, 2015). It is the ratio of maternal deaths to live births over a certain period of time, expressed per 100,000 live births.

4. **Associate terms:**

a. **Maternal death** is a death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and the site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes.

b. **Live birth** refers to complete expulsion or extraction from its mother of a product of human conception, irrespective of the duration of pregnancy, which, after such separation, breaths or shows any other evidence of life such as beating of the heart, pulsation of umbilical cord, or definite movement of voluntary muscles, whether or not the umbilical cord has been cut or the placenta is attached. Each product of such a birth is considered live born.

*Note: MMR is estimated on the basis of limited exposure time and a small number of events, thus having large potential sampling errors (95% intervals around each estimate). MMR is different from MM Rate which is the annual number of maternal deaths occurring among women of reproductive age (expressed per 100,000 women).*

5. **Numerator**: Number of maternal deaths occurring among ever-married women (ages 15-49 years) within 3-year period preceding the survey X 100,000

6. **Denominator**: Total number of live births occurring within the same reference period

7. **Unit of measure**: Deaths per 100,000 live births

8. **Data source**: The available data sources are Bangladesh Maternal Mortality Survey (BMMS), Sample Vital Registration System (SVRS) and World Bank.

9. **Method of estimation**:

a. **BMMS**: The BMMS used both the sisterhood and the household deaths approaches to measure maternal mortality and also used both a time of death and a verbal autopsy approach to identify pregnancy-related or maternal deaths among deaths of women of reproductive age reported by households. The Household Questionnaire included a section concerning deaths of usual residents of the household since October 2006. If any death was reported, further details regarding the name, sex, age at death, and month and year of death were collected. If the deceased person was a woman age 13-49 at the time of death, four questions were asked as to whether the woman died while she was pregnant, giving birth, within 42 days, or after 42 days to one year of the end of the pregnancy (Figure 3.1a). In addition, a verbal autopsy was conducted subsequently with household members for all deaths of women age 15 to 49 to try to ascertain whether

the death was maternal. Cause of death was determined from the verbal autopsy by physician review; two physicians independently reviewed each case, but if they could not agree, the case was reviewed by a third physician (Figure 3.1b). An expert committee of obstetricians was also involved to assign a specific cause of maternal death when the three physicians agreed that the death was maternal but could not assign a specific cause. The International Classification of Diseases Revision 10 was used to assign all causes of death.

The Women's Questionnaire, administered to all ever-married female household members age 13-49, included a complete sibling history—the name, sex, survival status, and age (if living) or age at death, and years since death (if dead)—for every live birth the respondent's mother had, excluding the respondent herself. Further, for any sisters who died at age 12 or older, the time of death relative to pregnancy, childbirth, and the first two months after the end of the pregnancy was also ascertained.

In addition to providing information about maternal mortality, both sets of questions provide information about overall mortality, at all ages in the case of household deaths of usual residents and for age 13-49 in the case of data from the sibling history.

b. **SVRS**: Adopting Integrated Multipurpose Sampling through household survey SVRS collect information like for births and deaths as and when the events occurred for a specific year. The local female registrar collects this information. The cause of is self reported. Considering the annual number of deaths related pregnancy and childbirth (as per definition) and total number of live births was estimated, and then the MMR was calculated and expressed as per 100,000 live births.

c. **World Bank**: Maternal mortality ratio is the number of women who die from pregnancy-related causes while pregnant or within 42 days of pregnancy termination per 100,000 live births. The data are estimated with a regression model using information on the proportion of maternal deaths among non-AIDS deaths in women ages 15-49, fertility, birth attendants, and GDP measured using purchasing power parities (PPPs).

10. **Disaggregation**: Age, residence (urban/rural), administrative divisions, wealth quintile

11. **Comments**: The ability to generate country, regional and global estimates with higher precision and accuracy would be greatly facilitated if country civil registration systems were further improved. This improvement would reduce the need to conduct special maternal mortality studies (which are expensive).

12. **Further information**:

13. **Related indicator**: Proportion of births attended by skilled health personnel (3.1.2)

## 2. Total Fertility Rate

1. SDG Number:

2. Indicator name: **Total fertility rate**

3. Definition: The average number of children a hypothetical cohort of women would have at the end of their reproductive period if they were subject during their whole lives to the fertility rates of a given period and if they were not subject to mortality. It is expressed as children per woman.

4. Associate terms:

5. Numerator:

6. Denominator:

7. Unit of measure:

8. Data source:

9. Method of estimation:
   a. BDHS: Cross-sectional and Household interview, 2-Stage Stratified sampling
   b. MICS: Cross-sectional and Household interview, 2-Stage Stratified cluster sampling
   c. SVRS: Surveillance and Household survey. Integrated Multipurpose sampling
   d. World Bank:
   e. GBD:

10. Disaggregation:

11. Comments:

12. Further information:

13. Related indicator:

## 3. Number of currently registered doctors per 10,000 population

1. SDG Number:

2. Indicator name: Number of currently registered doctors per 10,000 population

3. Definition: Number of physicians, including generalists and specialist medical practitioners per 1000 population in the given national and/or subnational area.

4. Associate terms:

5. Numerator:

6. Denominator:

7. Unit of measure: Number of doctors per 10,000 population.

8. Data source:

9. Method of estimation:

   a. Health Bulletin

   b. HRH country profile

10. Disaggregation:

11. Comments: A small scale survey can be planned to extract information on practicing doctors from BMDC record

12. Further information: Only registered doctors were considered. Should we consider practicing doctors

13. Related indicator:

## 4. Number of currently registered Nurses & Midwives per 10,000 population

1. SDG Number:

2. Indicator name: Number of currently registered Nurses & Midwives per 10,000 population

3. Definition: Number of nursing and midwifery personnel per 1000 population in the given national and/or subnational area.

4. Associate terms:

5. Numerator:

6. Denominator:

7. Unit of measure:

8. Data source:

9. Method of estimation:

    a. Health Bulletin:

    b. HRH country profile:

10. Disaggregation:

11. Comments: No gap has been identified yet.

12. Further information:

13. Related indicator:

## 5. District and UPZ hospital have 1 Obs/Gynae + 1 anaesthesiologist

1. SDG Number:

2. Indicator name: District and UPZ hospital have 1 Obs/Gynae + 1 anaesthesiologist

3. Definition: Standard definition not available.

4. Associate terms:

5. Numerator:

6. Denominator:

7. Unit of measure:

8. Data source:

9. Method of estimation:

    a. BHFS: Cross sectional and Facility assessment using Service Provision Assessment (SPA) tool, Stratified random sampling

10. Disaggregation:

11. Comments: This indicator needs to be redefined because obstetric and anesthesiologists are available up to upazila level health facilities but not in lower tire healthcare facilities (union or below)

    Estimate not directly available in report but can be calculated <u>for upazila level and above health facilities using BHFS 2014 data.</u>

12. Further information:

13. Related indicator:

## 6.  Number of Hospital beds per 10,000 population

1.  SDG Number:

2.  Indicator name: Number of Hospital beds per 10,000 population

3.  Definition: The number of hospital beds available per every 10,000 inhabitants in a population (WHO)

4.  Associate terms:

5.  Numerator:

6.  Denominator:

7.  Unit of measure:

8.  Data source:

9.  Method of estimation:

    a.  Health Bulletin:

    b.  GHO:

10.  Disaggregation:

11.  Comments: Can request DGHS to include No. of beds from both public and private health facilities.

12.  Further information: HB 2017 contains information of No. of beds in DGHS-run public hospitals per 10,000 populations which is 2.89. Private sector hospital bed information was not reported in 2017.

13.  Related indicator:

## 7. Proportion of public health facilities that have a core set of relevant essential medicines

1. SDG Number:

2. Indicator name: Proportion of public health facilities that have a core set of relevant essential medicines

3. Definition: The average percentage of medicines outlets, where a selection of essential medicines is found on the day of the survey (WHO)

4. Associate terms:

5. Numerator:

6. Denominator:

7. Unit of measure:

8. Data source:

9. Method of estimation:

10. Disaggregation:

11. Comments: Need to be estimated from BHFS 2014.

12. Further information:  Estimate not directly reported in BHFS 2014

13. Related indicator:

## 8. Health insurance coverage (to be revised)

1. SDG Number:

2. Indicator name: Health insurance coverage (to be revised)

3. Definition: No standard definition is available.

4. Associate terms:

5. Numerator:

6. Denominator:

7. Unit of measure:

8. Data source:

9. Method of estimation:

    a. BNHA:

10. Disaggregation:

11. Comments:

    - Definition used in matrix is 'Other Health Insurance expressed as percentage of total health expenditure'.

    - Definition of this indicator needs to be specific such as what types of health insurance will be treated as 'Other health insurance'

    - BNHA 1997-2012 has reported overall Voluntary Health Insurance Payment (VHIP) as a percentage of total health expenditure but did not calculate per capita VHIP as a % of THE. Need total amount of 'Other Heath insurance' or corresponding raw data to calculate per capita estimate as percentage of total health expenditure (THE).

    - The estimate of this indicator might be recalculated by using report of BNHA 1997-2015.

12. Further information: No standard definition is available. No exact estimate is available.

13. Related indicator:

## 9. Health expenditure as % of GDP

1. SDG Number:

2. Indicator name: Health expenditure as % of GDP

3. Definition: Level of current health expenditure expressed as a percentage of GDP.

4. Associate terms:

5. Numerator:

6. Denominator:

7. Unit of measure:

8. Data source:

   - Estimate is taken from the report of BNHA 1997-2012.

   - Estimate is also taken from BNHA 1997-2015 (which has not been published yet)

9. Method of estimation:

   a. BNHA:

   b. GHO:

10. Disaggregation:

11. Comments:  Estimate is readily available

12. Further information:

13. Related indicator:

## 10. Service readiness for RMNCH-FP

1. SDG Number:

2. Indicator name: Service readiness for RMNCH-FP

3. Definition:

4. Associate terms:

5. Numerator:

6. Denominator:

7. Unit of measure:

8. Data source:

9. Method of estimation:

    a. BHFS: Cross sectional and Facility assessment using Service Availability and Readiness Assessment (SARA) tool, Multi-stage stratified random sampling

10. Disaggregation:

11. Comments:

12. Further information:

13. Related indicator:


## 11. Share of health spending in total government expenditure

1. SDG Number:

2. Indicator name: Share of health spending in total government expenditure

3. Definition: No standard definition is available.

4. Associate terms:

5. Numerator:

6. Denominator:

7. Unit of measure:

8. Data source:

9. Method of estimation:

    a. National Budget FY 2019-20:

10. Disaggregation:

11. Comments:

12. Further information:
    - Definition used in matrix is 'Percentage of health spending in total government expenditure'.
    - This indicator is calculated using total government expenditure as percentage of GDP (2012-2013), total amount of GDP (2012-2013) from National Accounts Statistics of BBS and total health expenditure (2012) from BNHA.
    - This indicator is also calculated using latest report of BNHA 1997-2015 (which has not been published yet) and National Account Statistics (Provisional Estimates of GDP, 2017-18 and Final Estimates of GDP, 2016-17) of BBS

13. Related indicator:

## 12. Health expenditure per capita

1. SDG Number:
2. Indicator name: Health expenditure per capita
3. Definition: Per capita current expenditures on health expressed in respective currency (BDT)
4. Associate terms:
5. Numerator:
6. Denominator:
7. Unit of measure:
8. Data source: BNHA 1997-2012
9. Method of estimation:
   a. BNHA:
   b. GHO:
10. Disaggregation:
11. Comments:
12. Further information:
13. Related indicator:

## 13. OOPS for health (per capita as % of THE)

1. SDG Number:

2. Indicator name: OOPS for health (per capita as % of THE)

3. Definition: No standard definition is available.

4. Associate terms:

5. Numerator:

6. Denominator:

7. Unit of measure:

8. Data source: OOPS (2012), amount of total health expenditure (2012) and total population (2012) from BNHA 1997-2012

9. Method of estimation:

    a. BNHA:

10. Disaggregation:

11. Comments:
    - Definition used in matrix is 'the indicator estimates how much every person pays out of pocket on average in BDT as percentage of his/her total health expenditure'.
- Estimate is calculate by using amount of OOPS (2012), amount of total health expenditure (2012) and total population (2012) from BNHA 1997-2012.
- Estimate is also calculated from BNHA 1997-2015 (which has not been published yet)

12. Further information:

13. Related indicator:

**14. % of ever married women aged <50 years who received quality ANC care**

1. SDG Number:

2. Indicator name: % of ever married women aged **<50** years who received **quality ANC** care

3. Definition:

4. Associate terms:

5. Numerator:

6. Denominator:

7. Unit of measure:

8. Data source:

9. Method of estimation:

    a. BDHS:

    b. BMMS:

    c. UESDS: Cross-sectional and Household survey, 2-Stage Stratified cluster sampling

    d. MICS: Cross-sectional and Household survey, 2-Stage Stratified cluster sampling

10. Disaggregation:

11. Comments:

12. Further information:

13. Related indicator:

**15. % of service provider positions functionally vacant in district and upzila-level public facilities, by category (physician, nurse/midwife)**

1. SDG Number:

2. Indicator name: % of service provider positions functionally vacant in district and upzila-level public facilities, by category (physician, nurse/midwife).

3. Definition:

4. Associate terms:

5. Numerator:

6. Denominator:

7. Unit of measure:

8. Data source:

9. Method of estimation:

    a. BHFS:

10. Disaggregation:

11. Comments:

12. Further information:

13. Related indicator:

**16. Percentage of incident TB cases that are detected (Tuberculosis incidence per 100,000 population)**

1. SDG Number:

2. Indicator name: **Percentage of incident TB cases that are detected (Tubercolosis incidence per 100,000 population)**

3. Definition:

4. Associate terms:

5. Numerator:

6. Denominator:

7. Unit of measure:

8. Data source:

9. Method of estimation:

    a. NTP:

    b. GTBR

10. Disaggregation:

11. Comments:

12. Further information:

13. Related indicator:

## 17. Tobacco: Age-standardized prevalence of adult >=15 years smoking tobacco in last 30 days

1. SDG Number:

2. Indicator name: **Tobacco: Age-standardized prevalence of adult >=15 years smoking tobacco in last 30 days**

3. Definition:

4. Associate terms:

5. Numerator:

6. Denominator:

7. Unit of measure:

8. Data source:

9. Method of estimation:
   a. WHO:
   b. GHO:
   c. GATS:

10. Disaggregation:

11. Comments:
    - This indicator is extracted from SDG. So, standard definition is available. To some extent it is complementary of NCD05 and similar to NCD07 only for not user.
    - Definition and estimates are available from Global Adult Tobacco Survey (GATS). We can keep this indicator though it partially reported the NCD07.

12. Further information:

13. Related indicator:

## 18. Contraceptive prevalence rate for modern method

1. SDG Number:

2. Indicator name: Contraceptive prevalence rate for modern method

3. Definition: The percentage of women aged 15–49 years, **married or in-union**, who are currently using, or whose sexual partner is using, at least one modern method of contraception.   Modern methods of contraception include: female and male sterilization, oral hormonal pills, the intra-uterine device (IUD), the male condom, injectables, the implant (including Norplant), vaginal barrier methods, the female condom and emergency contraception

4. Associate terms:

5. Numerator:

6. Denominator:

7. Unit of measure:

8. Data source:

9. Method of estimation:
    a. BDHS:
    b. MICS:
    c. SVRS:
    d. UESDS:
    e. World Bank:

10. Disaggregation:

11. Comments:  In Bangladesh context, we should not consider "in-union" couple as the proportion is very small. Hence, BDHS did not consider them in their estimate.

12. Further information:

13. Related indicator:

## 19. Proportion of births attended by skilled health personnel

1. SDG Number:
2. Indicator name: **Proportion of births attended by skilled health personnel**
3. Definition: The proportion of births attended by skilled health personnel. The proportion of births attended by skilled health personnel (doctors, nurses or midwives) trained in providing lifesaving obstetric care, including giving the necessary supervision, care and advice to women during pregnancy, childbirth and the post-partum period; to conduct deliveries on their own; and to care for newborns among the total number of live births in the same period.
4. Associate terms:
5. Numerator:
6. Denominator:
7. Unit of measure:
8. Data source:
9. Method of estimation:
    a. BDHS:
    b. MICS:
10. Disaggregation:
11. Comments:
    - Source tracer indicator means "Medically Trained Provider" instead of "Skilled health personnel". Source definition doesn't match with Meta Data definition. Global estimate

only represents "Doctor, nurse and midwives". In Bangladesh, medically trained provider includes doctor, nurse, midwife, paramedic, FWV, and CSBA.

- WB uses the same estimate to report on their website (source: UNICEF, State of the World's Children, Childinfo, and Demographic

12. Further information:

13. Related indicator:

## 20. % of HH have using improved sanitation

1. SDG Number:

2. Indicator name: **% of HH have using improved sanitation**

3. Definition: The Proportion of population using safely managed sanitation services, including a hand-washing facility with soap and water is currently being measured by the proportion of the population using a basic sanitation facility which is not shared with other households and where excreta is safely disposed in situ or treated off-site.

    'Improved' sanitation facilities include: flush or pour flush toilets to sewer systems, septic tanks or pit latrines, ventilated improved pit latrines, pit latrines with a slab, and composting toilets.

    Population with a basic handwashing facility: a device to contain, transport or regulate the flow of water to facilitate handwashing with soap and water in the household

4. Associate terms:

5. Numerator:

6. Denominator:

7. Unit of measure:

8. Data source:

9. Method of estimation:

   a. BDHS:

   b. MICS:

   c. SVRS:

   d. UESDS:

10. Disaggregation:

11. Comments: According to new definition of WHO, public or shared latrine is considered as unimproved sanitation facility. Among all available sources of this indicator, only UESDS included 'not shared latrine' in the improved sanitation facilities. Further information:

12. Related indicator:

## 21. Measles-Rubella (MR) immunization coverage among children under 12 months

1. SDG Number:

2. Indicator name: Measles-Rubella (MR) immunization coverage among children under 12 months

3. Definition:

4. Associate terms:

5. Numerator:

6.  Denominator:

7.  Unit of measure:

8.  Data source:

9.  Method of estimation:

   a.  BDHS:

   b.  MICS:

   c.  SVRS:

   d.  UESDS:

10. Disaggregation:

11. Comments:

12. Further information:

13. Related indicator:

**22. Proportion of population with catastrophic expenditure on health as a share of total household expenditure or income**

1.  SDG Number:

2.  Indicator name: Proportion of population with catastrophic expenditure on health as a share of total household expenditure or income

3.  Definition: Proportion of the population with catastrophic household expenditure on health as a share of total household expenditure or income. Two thresholds are used to define

"catastrophic household expenditure on health": greater than 10% and greater than 25% of total household expenditure or income.

4. Associate terms:
5. Numerator:
6. Denominator:
7. Unit of measure:
8. Data source:
9. Method of estimation:
   a. HIES:
10. Disaggregation:
11. Comments:
    - No exact estimate is available
    - This indicator can be estimated from HIES data. To estimate this indicator, need to calculate catastrophic health spending and therefore, need OOPS of respective household. But estimation procedure of OOPS in HIES report has not been disclosed. The amount of OOPS is measured for per patient whereas consumption expenditure is measured for per household in HIES. Key person corresponded with HIES might be approached in this regard. Two thresholds are used to define "large household expenditure on health" in SDG metadata: greater than 10% and greater than 25% of total household expenditure or income. Which threshold level should be adopted in our country context need to be fixed.

12. Further information:
13. Related indicator:

## 23. Prevalence of HIV among MARP

1. SDG Number:

2. Indicator name: Prevalence of HIV among MARP

3. Definition: Percentage of specific key populations living with HIV (standard definition not available

4. Associate terms:

5. Numerator:

6. Denominator:

7. Unit of measure:

8. Data source:

9. Method of estimation:

    a. HIV Surveillance, 2016 **(FSW, PWID),** Serological Survey 2015 (unpublished) **(MWM, TG)** National HIV Serological, Surveillance, 9th Round Technical, Report, 2011**(PWID)** Serological surveys and Global AIDS Monitoring 2018 **(ALL)**

    b. UNAIDS: Serological survey: 1998-2002: 4 rounds, 2003-04: 5th round, 2004-07: 6-8 round, 2011: 9th round (last), HIV Surveillance: yearly Serological surveys and Global AIDS Monitoring: 1 year.

    a. Cross-sectional Sentinel Surveillance and 1. Nationally representative, population-based sample surveys. ∫2. Behavioural surveillance surveys. ∫3. Specially designed surveys and questionnaires, including surveys of specific population groups (for example, specific service coverage surveys). ∫4. National HIV estimates from Spectrum software

10. Disaggregation:

11. Comments:

    - Published report available only for 2011 serological survey. Last Serological survey was done in 2015 but no published report /data available.
    - Required expert opinion whether the estimate needs to be a pooled estimate for MARP or kept segregated sub-indicator wise.
    - Standard definition is not available.
    - Estimates are not available for prisoners

12. Further information:

13. Related indicator:

## 24. Percentage of hypertensive patients receiving treatments (to be revised)

1. SDG Number:
2. Indicator name: Percentage of hypertensive patients receiving treatments (to be revised)
3. Definition: A person who reported that he/she was currently taking antihypertensive medication to lower blood pressure was considered to be under treatment for hypertension.
4. Associate terms:
5. Numerator:
6. Denominator:
7. Unit of measure:
8. Data source:
9. Method of estimation:
   a. BDHS:
10. Disaggregation:
11. Comments:
    - This indicator extracted from country monitoring framework (CMF), so no standard definition is available.
    - BDHS is the only source, where data was collected for 35 years and older.
    - Partially available
    - **Definition** for the indicator can be defined as; number of patients taking medication to lower the hyperextension (numerator) divided by the number of respondents told they have high blood pressure by a doctor or nurse (denominator).
12. Further information:
13. Related indicator:

## 25. Percentage of diabetic patients aware, treating and under control

1. SDG Number:
2. Indicator name: Percentage of diabetic patients aware, treating and under control
3. Definition: A person who reported that he/she was taking medication to keep blood sugar under control was considered to be under treatment for diabetes.
4. Associate terms:
5. Numerator:
6. Denominator:
7. Unit of measure:
8. Data source:
9. Method of estimation:
    a. BDHS:
10. Disaggregation:
11. Comments:
    - Definition for the indicator can be defined as; number of patients taking medication to control diabetes (numerator) divided by the number of respondents told they have diabetes by a doctor or nurse (denominator).
    - This indicator extracted from country monitoring framework (CMF), so no standard definition is available.
    - BDHS is the only source, where data was collected for 35 years and older.
12. Further information:
13. Related indicator:

## 26. Prevalence of stunting (height for age <-2 standard deviation from the median of the World Health Organization (WHO) Child Growth Standards) among children under 5 years of age

1. SDG Number:

2. Indicator name: **Prevalence of stunting (height for age <-2 standard deviation from the median of the World Health Organization (WHO) Child Growth Standards) among children under 5 years of age**

3. Definition: Prevalence of stunting (height-for-age <-2 standard deviation from the median of the World Health Organization (WHO) Child Growth Standards) among children under 5 years of age

4. Associate terms:

5. Numerator:

6. Denominator:

7. Unit of measure:

8. Data source:

9. Method of estimation:
    a. BDHS:
    b. MICS:
    c. Food Security and Nutrition Surveillance Project (FSNSP): Cross-sectional and Household interview. Four-stage sampling design

10. Disaggregation:

11. Comments: • No gap has been identified to track this indicator. Estimate is also readily available.

12. Further information:

13. Related indicator:

## 27. Neonatal mortality rate

1. SDG Number:
2. Indicator name: **Neonatal mortality rate**
3. Definition: Probability (expressed as a rate per 1000 live births) of a child born in a specific year or period dying in the first 30 days of life, if subject to age-specific mortality rates of that period.
4. Associate terms:
5. Numerator:
6. Denominator:
7. Unit of measure:
8. Data source:
9. Method of estimation:
   a. BDHS:
   b. SVRS:
   c. World Bank:
10. Disaggregation:
11. Comments:
    - The estimate is readily available in three different sources.
    - The estimates have large difference in different year's estimates. While SVRS is suggesting the neonatal mortality rate 17 in 2017, BDHS is providing the estimate 28 in 2014.
12. Further information:
13. Related indicator: