

Health Outcomes Index 2018

Measuring Progress Across States and Union Territories

A Reference Guidebook

June 2018



नीति आयोग

National Institution for Transforming India

Government of INDIA
Sansad Marg, New Delhi

Table of Contents

1. Background and Rationale	5
2. About the Index	6
2.1 Aim	6
2.2 Objective	6
2.3 Salient Features.....	6
2.4 Methodology.....	7
2.4.1 Computation of Index scores and ranks	7
2.4.2 Categorization of States for ranking	8
2.4.3 The Health Index - list of indicators and weightage	8
2.5 Limitations.....	10
2.6 Processes Involved	11
2.6.1 Key stakeholders - roles and responsibilities.....	11
2.6.2 Process flow	11
3.Indicator wise details.....	12
Domain 1: Health Outcomes.....	12
Sub-Domain 1.1: Key Outcomes	12
Indicator 1.1.1 – Neonatal Mortality Rate (NMR).....	12
Indicator 1.1.2 - Under-five Mortality Rate (U5MR).....	13
Indicator 1.1.3 - Total Fertility Rate (TFR).....	13
Indicator 1.1.4 - Proportion of Low Birth Weight (LBW) among new-borns	13
Indicator 1.1.5 - Sex Ratio at Birth (SRB).....	14
Sub-Domain 1.2: Intermediate Outcomes	14
Indicator 1.2.1 - Full immunization coverage	14
Indicator 1.2.2 - Proportion of institutional deliveries	14
Indicator 1.2.3 - Total case notification rate of tuberculosis (TB)	15
Indicator 1.2.4 - Treatment success rate of new microbiologically confirmed tuberculosis (TB) cases	15
Indicator 1.2.5 - Proportion of people living with HIV (PLHIV) on antiretroviral therapy (ART)	15
Domain 2: Governance and Information	16
Sub-Domain 2.1: Health Monitoring Data Integrity.....	16

Indicator 2.1.1 - Data Integrity Measure: Institutional deliveries and ANC registered within first trimester	16
Sub-Domain 2.2: Governance	17
Indicator 2.2.1 - Average occupancy of an officer (in months), for three key posts at State level for last three years	17
Indicator 2.2.2 - Average occupancy of a District Chief Medical Officer (CMO) or equivalent post (heading District Health Services full-time)(in months) in last three years.....	17
Domain 3: Key Inputs/Processes.....	18
Sub-Domain 3.1: Health Systems/Service Delivery	18
Indicator 3.1.1. - Proportion of vacant health care provider positions (Regular + Contractual) in public health facilities	18
Indicator 3.1.2 - Proportion of total staff (regular + contractual) with e-payslip generated in the IT-enabled Human Resource Management Information System (HRMIS).....	18
Indicator 3.1.3.a - Proportion of facilities functional as First Referral Units (FRUs).....	19
Indicator 3.1.3.b - Proportion of functional 24x7 PHCs	19
Indicator 3.1.4 - Proportion of districts with functional Cardiac Care Units (CCUs).....	20
Indicator 3.1.5 - Proportion of ANC registered within first trimester against total registrations	20
Indicator 3.1.6 - Level of registration of births	20
Indicator 3.1.7 - Completeness of IDSP reporting of P and L forms	21
Indicator 3.1.8 - Proportion of CHCs with grading of 4 points or above.....	21
Indicator 3.1.9 - Proportion of public health facilities with accreditation certificates by a standard quality assurance programme (NQAS/NABH/ISO/AHPI/Others)	21
Indicator 3.1.10 - Average number of days for transfer of Central National Health Mission (NHM) fund from State Treasury to implementation agency (Department/Society) based on all tranches of the last financial year	22

Abbreviations

AHPI	Association of Healthcare Providers
ANC	Antenatal Care
ANM	Auxiliary Nurse Midwife
ART	Antiretroviral Therapy
BY	Base Year
BCG	Bacillus Calmette–Guérin
CCU	Cardiac Care Unit
CHC	Community Health Centre
CMO	Chief Medical Officer
CRS	Civil Registration System
DH	District Hospital
DPT	Diphtheria, Pertussis, and Tetanus
ENT	Ear-Nose-Throat
FRU	First Referral Unit
HIV	Human Immunodeficiency Virus
HMIS	Health Management Information System
HRMIS	Human Resources Management Information System
IDSP	Integrated Disease Surveillance Project
IT	Information Technology
ISO	International Organization for Standardization
IVA	Independent Validation Agency
LBW	Low Birth Weight
MIS	Management Information Systems
MMR	Maternal Mortality Ratio
MO	Medical Officer
MoHFW	Ministry of Health and Family Welfare
NABH	National Accreditation Board for Hospitals and Healthcare Providers
NACO	National AIDS Control Organization
NCDs	Non-communicable Diseases
NE	North-east
NFHS	National Family Health Survey
NHM	National Health Mission
NITI	National Institution for Transforming India
NMR	Neonatal Mortality Rate
NQAS	National Quality Assurance Standards
OPV	Oral Polio Vaccine
ORGI	Office of the Registrar General and Census Commissioner of India
PHC	Primary Health Centre
PLHIV	People living with HIV/AIDS
RNTCP	Revised National Tuberculosis Control Programme
RU	Reporting Unit
RY	Reference Year
SC	Sub-Centre
SDG	Sustainable Development Goals
SDH	Sub District Hospital
SRB	Sex Ratio at Birth
SRS	Sample Registration System
TA	Technical Assistance
TB	Tuberculosis
U5MR	Under Five Mortality Rate

1. Background and Rationale

The National Development Agenda unanimously agreed to by all the State Chief Ministers and the Lieutenant Governors of Union Territories (UTs) in 2015 had inter alia identified education, health, nutrition, women and children as priority sectors requiring urgent action. To fulfill the National Development Agenda, it is imperative to make rapid improvement in these sectors. India, along with other countries, has also committed itself to adopting the Sustainable Development Goals (SDGs) to end poverty, protect the planet, and ensure prosperity for all as part of the new global sustainable development agenda to be fulfilled by 2030.

As the nodal agency responsible for charting India's quest for attaining the commitments under the SDGs, the National Institution for Transforming India (NITI Aayog) has been mandated with transforming India by exercising thought leadership and by invoking the instruments of co-operative and competitive federalism, focusing the attention of the State Governments and Union Ministries on achieving outcomes. It is in this context that NITI Aayog had spearheaded the Health Index initiative in 2017 in collaboration with the Ministry of Health & Family Welfare (MoHFW) and with technical assistance from the World Bank, to measure the annual performance of States and UTs on a variety of indicators – Health Outcomes, Governance and Processes.

“Healthy States, Progressive India”- the report on the first round of Health Index released in February 2018 measured the annual performance of the States and UTs, over the period 2014-15 (base year) and 2015-16 (reference year) and ranked States on the basis of incremental change, while also providing an overall status of States' performance and helping identify specific areas of improvement. NITI Aayog is committed to establish the Health Index as an annual systematic tool that will propel States towards undertaking multi-pronged interventions that will bring about the much-desired optimal population health outcomes. In this regard, the World Bank continues to provide technical assistance to the NITI Aayog on the second round of the Health Index which will cover the period 2016-17 (reference year) and 2015-16 (base year) and will focus on measuring and highlighting annual incremental improvement in the States and UTs.

The indicators, methodology and categorization of States and UTs in the second round of the Health Index will be broadly consistent with the first round with a total of 23 indicators grouped in the domains of Health Outcomes, Governance and Information, and Key Inputs/Processes. The interactive web portal developed and hosted by NITI Aayog with pre-designed format from the first round will be used by States and UTs to submit data on identified indicators for the Health Index in the second round. Subsequently, the data will be verified by an independent validation agency (IVA) prior to computing the Index and ranks for all the States and UTs. As in the previous round, the States will be ranked in three categories to ensure comparison among similar entities - Larger States, Smaller States, and UTs.

2. About the Index

2.1 Aim

To promote a co-operative and competitive spirit amongst the States and UTs to rapidly bring about transformative action in achieving the desired health outcomes.

2.2 Objective

- To release a composite Health Index based on key health outcomes and other health systems and service delivery indicators.
- To generate Health Index scores and rankings for different categories of the States and UTs based on year-to-year progress (annual incremental performance) and overall performance.

2.3 Salient Features

- The Health Index consists of a limited set of relevant indicators categorized in the domains of Health Outcomes, Governance and Information, and Key Inputs/Processes.
- Health Outcomes are assigned the highest weight, as these remain the focus of performance.
- Indicators have been selected on the basis of their importance and availability of reliable data at least annually from existing data sources such as the Sample Registration System (SRS), Civil Registration System (CRS) and Health Management Information Systems (HMIS).
- Data on indicators and Index calculations will be validated by the IVA.
- A composite Index will be calculated as a weighted average of various indicators, focused on measuring the state of health in each State and UT for a base year (2015-16) and a reference year (2016-17).
- The change in the Index score of each State from the base year to a reference year will measure the annual incremental progress of each State.
- States and UTs are grouped in three categories to ensure comparison among similar entities, namely 21 Larger States, 8 Smaller States, and 7 UTs.

2.4 Methodology

2.4.1 Computation of Index scores and ranks

After validation of data by the IVA, data submitted by the States and pre-entered from established sources will be used for the Health Index score calculations. Each indicator value will be scaled, based on the nature of the indicator. For positive indicators, where *higher the value, better the performance* (e.g. service coverage indicators), the scaled value (S_i) for the i^{th} indicator, with data value as X_i , will be calculated as follows:

$$\text{Scaled value } (S_i) \text{ for positive indicator} = \frac{(X_i - \text{Minimum value})}{(\text{Maximum value} - \text{Minimum value})} \times 100$$

Similarly, for negative indicators where *lower the value, better the performance* [e.g. **Neonatal Mortality Rate** (NMR), Under 5 Mortality Rate (U5MR), human resource vacancies], the scaled value will be calculated as follows:

$$\text{Scaled value } (S_i) \text{ for negative indicator} = \frac{(\text{Maximum value} - X_i)}{(\text{Maximum value} - \text{Minimum value})} \times 100$$

The minimum and maximum values of each indicator will be ascertained based on the values for that indicator across States within the grouping of States (Larger States, Smaller States, and UTs) for that year.

The scaled value for each indicator will lie between the range of 0 to 100. Thus, for a positive indicator such as institutional deliveries, the State with the lowest institutional deliveries will get a scaled value of 0, while the State with the highest institutional deliveries will get a scaled value of 100. Similarly, for a negative indicator such as Neonatal Mortality Ratio (NMR), the State with the highest NMR will get a scaled value of 0, while the State with the lowest NMR will get a scaled value of 100. Accordingly, the scaled value of other States will lie between 0 and 100 in both cases.

Based on the above scaled values (S_i), a composite Index score will then be calculated for the base year and reference year after application of the weights using the following formula:

$$\text{Composite Index} = \frac{\sum W_i * S_i}{\sum W_i}$$

where W_i is the weight for i^{th} indicator.

The composite Index score will provide the overall performance and domain-wise performance for each State and UT and will be used for generating overall performance ranks.

Incremental performance from base year composite scores to reference year composite scores will also be measured and used to generate ranks indicating change in annual performance.

2.4.2 Categorization of States for ranking

As in the first round, based on the availability of data and the fact that similar States should be compared, the States will be ranked in three categories, namely Larger States, Smaller States and UTs (Table 2.1).

Table 2.1 - Categorization of States and UTs

Category	Number of States and UTs	States and UTs
Larger States	21	Andhra Pradesh, Assam, Bihar, Chhattisgarh, Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Odisha, Punjab, Rajasthan, Tamil Nadu, Telangana, Uttar Pradesh, Uttarakhand, West Bengal
Smaller States	8	Arunachal Pradesh, Goa, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, Tripura
Union Territories	7	Andaman & Nicobar, Chandigarh, Dadra & Nagar Haveli, Daman & Diu, Delhi, Lakshadweep, Puducherry

This categorization has been adopted due to the following reasons:

- The SRS data on health outcomes [NMR, U5MR, TFR and Sex Ratio at Birth (SRB)] are not available for 8 Smaller States and 7 UTs, and though options were explored by the Office of the Registrar General and Census Commissioner of India (ORGI) in the first round to generate these estimates, no reliable option was available.
- Experts consulted¹ by NITI Aayog in the first round also reported that reliable estimates for these outcome indicators based on raw data obtained from SRS for the Smaller States and UTs could not be derived due to small sample size and insufficient number of events.

2.4.3 The Health Index - list of indicators and weightage

The Health Index is a weighted composite Index based on 23 indicators grouped in the domains of Health Outcomes, Governance and Information, and Key Inputs/Processes.

Each domain has been assigned weights based on its importance. Within a domain or sub-domain, the weight has been equally distributed among the indicators in that domain or sub-domain. Table 2.2 provides a snapshot of the number of indicators in each domain and

¹ Experts included Pulak Ghosh, Professor, Indian Institute of Management, Bangalore; Arvind Pandey, Advisor, Indian Council for Medical Research/ National Institute of Medical Statistics (ICMR-NIMS); Laishram Ladusingh, Director, International Institute of Population Studies; Mudit Kapoor, Associate Professor of Economics, the Indian Statistical Institute (ISI).

sub-domain along with weights, while Table 2.3 provides the list of Health Index indicators and weight assigned.

Table 2.2 - Health Index: Summary

Domain	Sub-domain	Larger States		Smaller States		Union Territories	
		Number of Indicators	Weight	Number of Indicators	Weight	Number of Indicators	Weight
Health Outcomes	Key Outcomes	5	500	1	100	1	100
	Intermediate Outcomes	5	250	5	250	4	200
Governance and Information	Health Monitoring and Data Integrity	1	70	1	70	1	70
	Governance	2	60	2	60	2	60
Key Inputs/ Processes	Health Systems/ Service Delivery	10	200	10	200	10	200
TOTAL		23	1080	19	680	18	630

Table 2.3 - List of Indicators and Weights

S. No.	Indicators
Domain 1 – Health Outcomes	
Sub-domain 1.1 - Key Outcomes (Weight: Larger States – 500, Smaller States & UTs – 100)	
1.1.1	Neonatal Mortality Rate (NMR)*
1.1.2	Under-five Mortality Rate (U5MR)*
1.1.3	Total Fertility Rate (TFR)*
1.1.4	Proportion of Low Birth Weight (LBW) among newborns
1.1.5	Sex Ratio at Birth (SRB)*
Sub-domain 1.2 - Intermediate Outcomes (Weight: Larger & Smaller States – 250, UTs – 200)	
1.2.1	Full immunization coverage
1.2.2	Proportion of institutional deliveries
1.2.3	Total case notification rate of tuberculosis (TB)
1.2.4	Treatment success rate of new microbiologically confirmed TB cases
1.2.5	Proportion of people living with HIV (PLHIV) on antiretroviral therapy (ART)+
Domain 2 – Governance and Information	
Sub-domain 2.1 – Health Monitoring and Data Integrity (Weight: 70 for all States and UTs)	
2.1.1	Data Integrity Measure: Percent deviation of HMIS reported data from NFHS-4 for: a. Institutional deliveries b. ANC registered within first trimester
Sub-domain 2.2 – Governance (Weight – 60 for all States and UTs)	

S. No.	Indicators
2.2.1	Average occupancy of an officer (in months), for three key posts (listed below) at State level for last three years 1. Principal Secretary 2. Mission Director (NHM) 3. Director (Health Services)
2.2.2	Average occupancy of a District Chief Medical Officer (CMO) or equivalent post (heading District Health Services full-time) (in months) in last three years
Domain 3 – Key Inputs/Processes	
Sub-domain 3.1 – Health Systems/Service Delivery (Weight – 200 for all States and UTs)	
3.1.1	Proportion of vacant health care provider positions (regular + contractual) in public health facilities a. ANMs at Sub-Centres b. Staff Nurses at PHCs and CHCs c. MO positions at PHCs d. Specialist position at District Hospitals
3.1.2	Proportion of total staff (regular + contractual) with e-pay slip generated in the IT-enabled Human Resources Management Information System (HRMIS)
3.1.3	a. Proportion of specified type of facilities functional as First Referral Units (FRUs) [#]
	b. Proportion of functional 24x7 PHCs [@]
3.1.4	Proportion of districts with functional Cardiac Care Units (CCUs)
3.1.5	Proportion of ANC registrations within first trimester against total registrations
3.1.6	Level of registration of births (%)
3.1.7	Completeness of IDSP reporting of P and L forms (%)
3.1.8	Proportion of CHCs with grading of 4 points or above
3.1.9	Proportion of public health facilities with accreditation certificates by a standard quality assurance program (NQAS/NABH/ISO/AHPI) a. District/sub-district hospitals b. CHCs/PHCs
3.1.10	Average number of days for transfer of Central NHM fund from State Treasury to implementation agency (Department/ Society) based on all tranches of the last financial year

* Applicable only for Larger States

+ Applicable only for Larger and Smaller States; not applicable for UTs

one FRU per 500,000 population

@ one 24x7 PHC per 100,000 population

2.5 Limitations

- Some critical areas such as infectious diseases, non-communicable diseases (NCDs), mental health, governance, and financial risk protection are not fully captured in the Index due to non-availability of acceptable quality of data on an annual basis.
- For several indicators, the data is limited to service delivery in public facilities due to the paucity and uneven availability of private sector data on health services in the HMIS.
- For several key outcome indicators, data are available only for Larger States. Hence, the Health Index scores and ranks for Smaller States and UTs will be calculated excluding these indicators.
- Data for indicators like Maternal Mortality Ratio (MMR) are available only for formerly undivided States, which could not be used in the Index.

- Since the integrity of administrative data is to be measured in comparison with reliable independent data, the National Family Health Survey (NFHS-4) will be used for comparison purposes in this round as well.

2.6 Processes Involved

2.6.1 Key stakeholders - roles and responsibilities

Multiple stakeholders are involved in the entire exercise and their roles and responsibilities are summarized in Table 2.4

Table 2.4 - Key stakeholders: Roles and responsibilities- Health Outcomes Index 2018

NITI Aayog	States	Technical Assistance (TA) Agency (The World Bank)	Mentor Agencies	Independent Validation Agency
Review, finalize and disseminate- the Health Index 2018 along with necessary guidance in close partnership with MoHFW	Adopt and share Health Index 2018 with various departments and districts	TA to NITI Aayog in reviewing, finalizing, and disseminating the Health Index 2018, protocols and guidelines	Mentor the States on data definitions and data requirements for the Health Index 2018	Validation and acceptance of the data submitted by the States for various indicators including comparison with other data sources as needed
Facilitate interaction between States and TA agency, mentor and independent validation agencies	Enter and submit data in a timely manner on the indicators as per identified sources in web portal	Technical oversight to the mentor agencies, portal agency and the independent validation agency	Provide guidance to the States for submission of data by visiting State Health Departments/ Directorates	Review of supporting documents and participation in data validation workshops with States
Host a web portal for States to enter data, its validation and dissemination of State-wise rankings	Coordination with different districts, mentor and independent validation agencies	Provide technical support for generation of composite Index	Follow up with States for timely submission of data/supporting documents on the on web portal	Submission of a comprehensive report on validation with State details to NITI Aayog
Overall coordination and management		Provide technical support for drafting the report		Generation and validation of ranks and final certification of data on the portal

2.6.2 Process flow

The process of development of the Health Index for 2018 involves various steps (Table 2.5)

Table 2.5 - Timeline for development of Health Index

S. No.	Step/Activity	2018				2019
		June	July-August	September-October	November-December	January- March
1	Finalization of Guidebook for Health Index and dissemination to States					
2	Development of the Portal, Mentorship to States and submission of data on portal					
3	Validation of data					
4	Index and rank generation					
5	Report and dissemination of ranks					

3.Indicator wise details

Domain 1: Health Outcomes

Sub-Domain 1.1: Key Outcomes

Indicator 1.1.1 – Neonatal Mortality Rate (NMR)	
Indicator definition	Number of infant deaths of less than 29 days per thousand live births during a specific year.
Reference year	2016 (Jan-Dec 2016)
Base year	2015 (Jan-Dec 2015)
Numerator	Not applicable as ready figures of NMR are available
Denominator	
Data source(s)	Sample Registration System (SRS) [pre-entered]
Remark	Indicator not applicable for the category of Smaller States and UTs

Indicator 1.1.2 - Under-five Mortality Rate (U5MR)	
Indicator definition	Number of child deaths of less than 5 years per thousand live births during a specific year.
Reference year	2016 (Jan-Dec 2016)
Base year	2015 (Jan-Dec 2015)
Numerator	Not applicable as ready figures of U5MR are available
Denominator	
Data source(s)	Sample Registration System (SRS) [pre-entered]
Remark	Indicator not applicable for the category of Smaller States and UTs

Indicator 1.1.3 - Total Fertility Rate (TFR)	
Indicator definition	Average number of children that would be born to a woman if she experiences the current fertility pattern throughout her reproductive span (15-49 years), during a specific year.
Reference year	2016 (Jan-Dec 2016)
Base year	2015 (Jan-Dec 2015)
Numerator	Not applicable as ready figures of TFR are available
Denominator	
Data source(s)	Sample Registration System (SRS) [pre-entered]
Remark	Indicator not applicable for the category of Smaller States and UTs

Indicator 1.1.4 - Proportion of Low Birth Weight (LBW) among new-borns	
Indicator definition	Proportion of low birth weight (≤ 2.5 kg) new-borns out of the total number of new-borns weighed during a specific year born in a health facility.
Reference year	2016-17 (Apr 2016-Mar 2017)
Base year	2015-16 (Apr 2015-Mar 2016)
Numerator	Number of new-borns weighed less than 2.5 kg in the specific year born in a health facility
Denominator	Total number of new-borns weighed in the State in the specific year born in a health facility

Data source(s)	Health Management Information System (HMIS)
-----------------------	---

Indicator 1.1.5 - Sex Ratio at Birth (SRB)	
Indicator definition	The number of girls born for every 1,000 boys born during a specific year.
Reference year	2014-16 (Jan-Dec)
Base year	2013-15 (Jan-Dec)
Numerator	Not applicable as ready figures of SRB are available
Denominator	
Data source(s)	Sample Registration System (SRS) [pre-entered]
Remark	Indicator not applicable for the category of Smaller States and UTs

Sub-Domain 1.2: Intermediate Outcomes

Indicator 1.2.1 - Full immunization coverage	
Indicator definition	Proportion of infants 9-11 months old who have received BCG, 3 doses of DPT, 3 doses of OPV and measles against estimated number of infants during a specific year.
Reference year	2016-17 (Apr 2016-Mar 2017)
Base year	2015-16 (Apr 2015-Mar 2016)
Numerator	Total number of infants aged 9-11 months fully immunized for the specific year
Denominator	Estimated number of infants for the specific year (estimates to be provided by MoHFW) [pre-entered]
Data source(s)	Health Management Information System (HMIS)

Indicator 1.2.2 - Proportion of institutional deliveries	
Indicator definition	Proportion of deliveries conducted in public and private health facilities against the number of estimated deliveries during a specific year.
Reference year	2016-17 (Apr 2016-Mar 2017)
Base year	2015-16 (Apr 2015-Mar 2016)
Numerator	Total number of institutional deliveries {Public + Private} for the specific year
Denominator	Number of estimated deliveries for the specific year (estimates to be provided by MoHFW) [pre-entered]

Data source(s)	Health Management Information System (HMIS)
-----------------------	---

Indicator 1.2.3 - Total case notification rate of tuberculosis (TB)	
Indicator definition	Number of new and relapsed TB cases notified (public + private) per 1,00,000 population during a specific year.
Reference year	2017 (Jan- Dec 2017)
Base year	2016 (Jan-Dec 2016)
Numerator	Not applicable as ready figures are available
Denominator	
Data source(s)	Revised National Tuberculosis Control Programme (RNTCP) MIS-Total notifications including public and private sector, MoHFW [pre-entered]

Indicator 1.2.4 - Treatment success rate of new microbiologically confirmed tuberculosis (TB) cases	
Indicator definition	Proportion of new cured and their treatment completed against the total number of new microbiologically confirmed TB cases registered during a specific year.
Reference year	2016 (Jan- Dec 2016)
Base year	2015 (Jan-Dec 2015)
Numerator	Not applicable as ready figures are available
Denominator	
Data source(s)	RNTCP MIS, MoHFW [pre-entered]

Indicator 1.2.5 - Proportion of people living with HIV (PLHIV) on antiretroviral therapy (ART)	
Indicator definition	Proportion of PLHIVs receiving ART treatment against the number of estimated PLHIVs who needed ART treatment for the specific year.
Reference year	2016-17 (Apr 2016-Mar 2017)
Base year	2015-16 (Apr 2015-Mar 2016)
Numerator	Number of PLHIVs receiving ART treatment for the specific year [pre-entered]
Denominator	Number of estimated PLHIVs who needed ART treatment for the specific year (estimates to be provided by MoHFW) [pre-entered]

Data source(s)	Central MoHFW Data [pre-entered]
Remark	Indicator not applicable for the category of UTs

Domain 2: Governance and Information

Sub-Domain 2.1: Health Monitoring Data Integrity

Indicator 2.1.1 - Data Integrity Measure: Institutional deliveries and ANC registered within first trimester	
Indicator definition	Percentage deviation of reported HMIS data from NFHS for Institutional Deliveries and ANC registered within first trimester data to assess the quality/integrity of reported data for a specific period.
Reference year	2015-16 (NFHS), 2011-12 to 2015-16 (HMIS)
Base year	2015-16 (NFHS), 2011-12 to 2015-16 (HMIS)
Numerator	Proportion of Institutional deliveries/ANC registered within first trimester (NFHS-4) <i>minus</i> Average proportion of institutional deliveries/ANC registered within first trimester [HMIS (For last 5 years)]
Denominator	Proportion of Institutional deliveries/ANC registered within first trimester (NFHS-4)
Data source(s)	Health Management Information System (HMIS) and National Family Health Survey (NFHS) [pre-entered based on the 2017 Health Index Report]
Remark	<p>The NFHS-4 data will be used both for the base year and reference year.</p> <p>The average proportion of institutional deliveries and ANC registered within first trimester calculated separately by using the HMIS data for the five years i.e. 2011-12, 2012-13, 2013-14, 2014-15, 2015-16. [pre-entered based on the 2017 Health Index Report]</p>

Sub-Domain 2.2: Governance

Indicator 2.2.1 - Average occupancy of an officer (in months), for three key posts at State level for last three years	
Indicator definition	<p>Average occupancy of an officer (in months), combined for following posts in last three years:</p> <ol style="list-style-type: none"> 1. Principal Secretary 2. Mission Director (NHM) 3. Director- Health Services
Reference year	Last 3 years as of March 31, 2017 [Apr 1, 2014-Mar 31, 2017]
Base year	Last 3 years as of March 31, 2016 [Apr 1, 2013-Mar 31, 2016]
Numerator	Sum of average tenure per officer combined for all 3 posts (in months)
Denominator	3 (posts)
Data source(s)	State Report
Remark	<p>The average tenure of per officer of all 3 posts needs to be calculated separately by using the</p> <ul style="list-style-type: none"> • Number of months the post remained filled with full time officer(s) in last three years, and • Number of full time officers that occupied the post in last three years.

Indicator 2.2.2 - Average occupancy of a District Chief Medical Officer (CMO) or equivalent post (heading District Health Services full-time)(in months) in last three years	
Indicator definition	Average occupancy of a full time CMO (in months) for all the districts in last three years.
Reference year	Last 3 years as of March 31, 2017 [Apr 1, 2014-Mar 31, 2017]
Base year	Last 3 years as of March 31, 2016 [Apr 1, 2013-Mar 31, 2016]
Numerator	Sum of average tenure of a full-time officer in last three years for all districts
Denominator	Number of districts
Data source(s)	State Report
Remark	<p>The average tenure of per officer for all districts needs to be calculated separately by using the</p> <ul style="list-style-type: none"> • Number of months the post remained filled with full time officer(s) in last three years, and • Number of full time officers that occupied the post in last three years.

Domain 3: Key Inputs/Processes

Sub-Domain 3.1: Health Systems/Service Delivery

Indicator 3.1.1. - Proportion of vacant health care provider positions (Regular + Contractual) in public health facilities	
Indicator definition	<p>Vacant healthcare provider positions in public health facilities against total sanctioned healthcare provider positions for following cadres (separately for each cadre) during a specific year:</p> <ul style="list-style-type: none"> a. Auxiliary Nurse Mid-wife (ANM) at Sub-Centres (SCs) b. Staff nurse at Primary Health Centres (PHCs) and Community Health Centres (CHCs) c. Medical Officer (MOs) at PHCs d. Specialists at District Hospitals (Medicine, Surgery, Obstetrics and Gynaecology, Paediatrics, Anaesthesia, Ophthalmology, Radiology, Pathology, ENT, Dental, Psychiatry)
Reference year	As on March 31, 2017
Base year	As on March 31, 2016
Numerator	Number of vacant posts
Denominator	Number of sanctioned posts
Data source(s)	State Report
Remark	Vacancy rate to be calculated using above numerator and denominator separately for each cadre (vacancy of specialists to be calculated by dividing the total of vacant positions of all specialists by the total sanctioned posts of all specialists). Then the average scaled value of all cadres to be calculated based on scaled values of each cadre.

Indicator 3.1.2 - Proportion of total staff (regular + contractual) with e-payslip generated in the IT-enabled Human Resource Management Information System (HRMIS)	
Indicator definition	Availability of a functional IT enabled HRMIS measured by the proportion of staff (regular + contractual) for whom an e-payslip can be generated in the IT-enabled HRMIS against total number of staff (regular + contractual) during a specific year.
Reference year	As on March 31, 2017
Base year	As on March 31, 2016

Numerator	Number of total staff (regular + contractual) for whom an e-payslip can be generated in the IT-enabled HRMIS
Denominator	Total number of staff (regular + contractual)
Data source(s)	State Report

Indicator 3.1.3.a - Proportion of facilities functional as First Referral Units (FRUs)	
Indicator definition	Proportion of public sector facilities conducting specified number of C-sections per year (FRUs) against the norm of one FRU per 500,000 population during a specific year.
Reference year	2016-17
Base year	2015-16
Numerator	Number of functional FRUs (CHCs/SDHs/DHs) based on specified number of C-sections conducted per year
Denominator	Required number of FRUs as per the MoHFW norm of one FRU per 500,000 population
Data source(s)	State Report on number of functional FRUs MoHFW data on required number of FRUs
Remark	<ul style="list-style-type: none"> Criteria for fully operational FRUs: <ul style="list-style-type: none"> ✓ For SDHs/CHCs - conducting minimum 60 C-Sections per year (36 C-sections per year for Hilly and North-Eastern States except Assam) ✓ For DHs - conducting minimum 120 C-Sections per year (72 C-sections per year for Hilly and North-Eastern States except Assam)

Indicator 3.1.3.b - Proportion of functional 24x7 PHCs	
Indicator definition	Proportion of PHCs providing healthcare services as per the stipulated criteria against the required norm of one 24x7 PHC per 100,000 population during a specific year
Reference year	2016-17
Base year	2015-16
Numerator	Number of PHCs providing services as per stipulated criteria
Denominator	Required number of 24x7 PHCs as per the MoHFW norm of one 24x7 PHC per 100,000 population (pre-entered based on MoHFW data)
Data source(s)	State Report on number of functional 24x7PHCs providing services as per stipulated criteria

	MoHFW data on required number of PHCs (pre-entered)
Remark	<ul style="list-style-type: none"> Criteria for functional 24x7 PHCs: <p>10 deliveries per month (5 deliveries per month for Hilly and North-Eastern States except Assam)</p>

Indicator 3.1.4 - Proportion of districts with functional Cardiac Care Units (CCUs)	
Indicator definition	Proportion of districts with functional CCUs in district hospitals [with desired equipment (ventilator, monitor, defibrillator, CCUs bed, portable ECG machine, pulse oxymeter etc.), drugs, diagnostics and desired staff as per programme guidelines] against total number of districts.
Reference year	As on March 31, 2017
Base year	As on March 31, 2016
Numerator	Number of district hospitals with functional CCUs
Denominator	Total number of districts
Data source(s)	State Report
Supporting documents to be uploaded	States to provide district wise status of CCUs along with necessary details.

Indicator 3.1.5 - Proportion of ANC registered within first trimester against total registrations	
Indicator definition	Proportion of pregnant women registered for ANC within 12 weeks of pregnancy during a specific year.
Reference year	2016-17
Base year	2015-16
Numerator	Number of ANC registered during the first trimester for the specific year
Denominator	Total number of ANC registrations for the specific year
Data source(s)	Health Management Information System (HMIS)

Indicator 3.1.6 - Level of registration of births	
Indicator definition	Proportion of births registered under Civil Registration System (CRS) against the estimated number of births during a specific year.
Reference year	2015
Base year	2014

Numerator	Not applicable as ready figures for CRS are available
Denominator	
Data source(s)	Civil Registration System (CRS) [pre-entered]

Indicator 3.1.7 - Completeness of IDSP reporting of P and L forms	
Indicator definition	Proportion of Reporting Units (RUs) reporting in stipulated time period against total RUs, for P and L forms during a specific year.
Reference year	2016
Base year	2015
Numerator	Not applicable as ready figures are available
Denominator	
Data source(s)	Central IDSP, MoHFW Data [pre-entered]
Remark	Average scaled value for P and L forms to be calculated based on scaled values of P and L forms[pre-entered].

Indicator 3.1.8 - Proportion of CHCs with grading of 4 points or above	
Indicator definition	Proportion of CHCs that are graded 4 points or above against total number of CHCs during a specific year.
Reference year	2016-17
Base year	2015-16
Numerator	Number of CHCs that are graded four points or above for the specific year
Denominator	Total number of CHCs
Data source(s)	Health Management Information System(HMIS) [pre-entered]

Indicator 3.1.9 - Proportion of public health facilities with accreditation certificates by a standard quality assurance programme (NQAS/NABH/ISO/AHPI/Others)	
Indicator definition	Proportion of specified type of public health facilities with accreditation certificates by a standard quality assurance programme against the total number of specified type of facilities during a specific year. 1. District hospital (DH)/Sub-district hospital (SDH) 2. CHC/Block PHC
Reference year	As on March 31, 2017

Base year	As on March 31, 2016
Numerator	Number of specified type of public health facilities (DH-SDH/CHC-Block PHC) with accreditation certificates
Denominator	Total number of specified type (DH-SDH/CHC-Block PHCs) of facilities
Data source(s)	State Report
Supporting documents to be uploaded	List of accredited facilities with type of accreditation.
Remark	Average scaled value for DH-SDH and CHC-Block PHCs to be calculated based on scaled values of above type of facility.

Indicator 3.1.10 - Average number of days for transfer of Central National Health Mission (NHM) fund from State Treasury to implementation agency (Department/Society) based on all tranches of the last financial year	
Indicator definition	Average time taken (in number of days) by the State Treasury to transfer funds to implementation agencies during a specific year.
Reference year	2016 – 17
Base year	2015 –16
Numerator	Sum of number of days taken by the State Treasury to transfer Central NHM funds for all tranches
Denominator	Total number of tranches
Data source(s)	Centre NHM Finance Data [pre-entered]
Supporting documents to be uploaded	Tranche wise amount received by State Treasury from GoI (with dates) Tranche wise amount released by the State Treasury to the implementation agency [Department/Society] (with dates)
Remark	Centre NHM Finance data includes the RCH flexi-pool and NHM-Health System Strengthening flexi-pool data (representing a substantial portion of the NHM funds) for calculating delay in transfer of funds.

Contact details

NITI Aayog, Sansad Marg, New Delhi 110001

Tel: 011-23096613/23042325

**Email: alokkumar.up@ias.nic.in
k.madangopal@gov.in**