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# Measuring Hand Hygiene for all: A framework for monitoring and reporting hand hygiene in India

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# Measuring Hand Hygiene for all:

## A framework for monitoring and reporting hand hygiene in India



### A. BACKGROUND

The on-going surge and re-surge of the COVID-19 pandemic has brought unprecedented attention to the powerful benefits of handwashing with soaps at regular intervals. Hand hygiene is a cost-effective public health intervention, with important implications for COVID-19 prevention and well as for the prevention of a host of conditions that plague populations in low- and middle-income countries, such as diarrheal diseases, respiratory infections, and other infectious diseases. According to JMP 2021, in India 67.79% of households and 53% of schools have access to basic hygiene whereas there are data gaps for hygiene in health care facilities. According to the WHO, handwashing with

soap could effectively reduce the chances of COVID-19 transmission, therefore, the estimation of current infrastructure situation is key for further planning and development of strategies to battle COVID-19 and other infectious diseases.

The purpose of this framework aims to identify the core indicators that needs to be measured to track progress on improvement in hand hygiene. The lack of uniform robust monitoring framework for handwashing undermines effective planning and implementation of programs, as well as assessments of improvements made and gaps that remain.

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## B. INTRODUCTION

The target for Goal 6.2 of the Sustainable Development Goals (SDGs) is: “by 2030, achieve access to adequate and equitable sanitation and **hygiene** for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations”<sup>1</sup>.

Hygiene is multi-faceted and comprises of many behaviours, including handwashing, menstrual hygiene, oral hygiene, environmental cleaning in health care facilities and food hygiene. There is no agreed-upon, internationally recognized definition of hygiene.<sup>2</sup> However, handwashing with soap and water is recognized as a top priority for

hygiene in all settings. It is also considered a suitable indicator for national and global hygiene monitoring.

The World Health Organisation (WHO) defines hand hygiene as, “any action of hygienic hand antisepsis<sup>3</sup> in order to reduce transient microbial flora (generally performed either by hand rubbing with an alcohol-based formulation or handwashing with plain or antimicrobial soap and water)”<sup>4</sup>. In this document the definition of hand hygiene is limited to the practice of handwashing with soap. And, good hand hygiene refers to the practice of handwashing with soap such that it results in elimination of germs.

## C. WHY HAND HYGIENE?

Hand hygiene has impact on the health, economy, and overall wellbeing of the society. Good hand hygiene improves health, prevents economic stresses and contributes to the overall prosperity of the society.

### Health

“It is estimated that half a million people die each year from diarrhoea or acute respiratory infections that could have been prevented with good hand hygiene.”<sup>5</sup> Handwashing with soap has been found to be the most significant hygiene behaviour in reducing diarrhoeal morbidity.<sup>6</sup> Contact with contaminated surfaces, food, faeces, and with gateways of the body (eyes, nose and mouth), make hands a medium of spreading diseases. Handwashing with soap eliminates the risk of spreading germs through contact, thus reduces illnesses, controls the spread of infectious diseases, and thereby saves lives.

Handwashing with soap prevents the spread of acute respiratory infections (that affect respiration/ breathing normally) and diarrhoea. Repeated bouts of diarrhoea cause stunting and affect cognitive development. Further, handwashing prevents sepsis and health care associated infections such as hospital acquired pneumonia, urinary tract disorders, and more. Handwashing with soap has indirect health benefits as well, such as encouraging other hygiene behaviours (such as face washing), reducing the burden on health systems, improving the quality of health care services, and reducing anti-microbial resistance.

## C. WHY HAND HYGIENE? (CONT.)

### Economic

Ill health and death resulting from poor hand hygiene cause economic stress. There are financial costs such as direct costs incurred in seeking medical treatment (including non-medical costs such as out-of-pocket payments and travel costs) and indirect costs

such as income loss, school absence and lost productivity associated with sickness, that are borne by both the patient and the society at large. Practice of good hand hygiene, therefore, is in the interest of the individual as well as for governments.

### Social

“The infectious diseases that hand hygiene can help control keep kids out of school and adults out of work, affecting the short- and long-term economic well-being of household...reduced school attainment and household productivity affect national economic development, which, in turn, affects a country’s ability to provide essential services.”<sup>7</sup> Underfunded essential services (including health) are put on further stress

during infectious disease outbreak, impacting life of all.

Prevention of diseases decrease the stress on women (reducing unpaid and care work responsibilities), and good personal hygiene has been found linked to the feelings of dignity and pride.

## D. MEASURING HAND HYGIENE

Gathering information on handwashing is difficult as asking or observing people washing hands may involve respondent bias. Thus, the presence of handwashing facilities with soap and water is considered an acceptable proxy to measure hand hygiene. For instance, the indicator to measure progress towards the global SDG target on hygiene at household - Indicator 6.2.1b – measures ‘the proportion of the population with handwashing facilities with soap and water at home’. Similarly, the

presence of hand hygiene facilities is used as a measure for coverage in schools and health care facilities.

The WHO UNICEF Joint Monitoring Programme (JMP) service ladder for hygiene, likewise, identifies presence of a handwashing facility with soap and water on-premises as the priority indicator for global monitoring of hygiene.

<sup>1</sup> <https://sdgs.un.org/goals/goal6>

<sup>2</sup> United Nations Children’s Fund and World Health Organization, State of the World’s Hand Hygiene: A global call to action to make hand hygiene a priority in policy and practice, UNICEF, New York, 2021.

<sup>3</sup> The practice of using antiseptics to eliminate the microorganisms that cause disease.

<sup>4</sup> [https://www.who.int/gpsc/5may/Hand\\_Hygiene\\_Why\\_How\\_and\\_When\\_Brochure.pdf](https://www.who.int/gpsc/5may/Hand_Hygiene_Why_How_and_When_Brochure.pdf)

<sup>5</sup> State of the World’s Hand Hygiene, 2021.

<sup>6</sup> Global Hand Washing Day, Planners Guide, Second Edition (2009) as quoted in Training modules developed for Training of Trainers on Sanitation, Hygiene and Water (SHAW) Programme for East Indonesia (SHAW) performance monitoring (2013).

<sup>7</sup> State of the World’s Hand Hygiene, 2021.

## D. MEASURING HAND HYGIENE (CONT.)

**Box 1: JMP hygiene service ladder for households, schools and health care facilities<sup>8</sup>**

SERVICE LEVEL	DEFINITION
<b>BASIC</b>	<ul style="list-style-type: none"> <li>/ For <b>households</b>: Availability of a handwashing facility on premises with soap and water.</li> <li>/ For <b>schools</b>: Handwashing facilities with water and soap available at the school at the time of the survey.</li> <li>/ For <b>health care facilities</b>: A functional hand hygiene facility with water and soap and/or ABHR at points of care, and within five metres of the toilets.</li> </ul>
<b>LIMITED</b>	<ul style="list-style-type: none"> <li>/ For <b>households</b>: Availability of a handwashing facility on premises lacking soap and/or water.</li> <li>/ For <b>schools</b>: Handwashing facilities with water but no soap available at the school at the time of the survey</li> <li>/ For <b>health care facilities</b>: Functional hand hygiene facilities are available either at points of care or toilets, but not both.</li> </ul>
<b>NO FACILITY</b>	<ul style="list-style-type: none"> <li>/ For <b>households</b>: No handwashing facility on premises.</li> <li>/ For <b>schools</b>: No handwashing facilities or no water available at the school.</li> <li>/ For <b>health care facilities</b>: No functional hand hygiene facilities are available either at points of care or toilets.</li> </ul>

Those **households** that have a handwashing facility with soap and water available on-premises can be categorized as household with basic hygiene service. Households that have a facility but lack water or soap or use materials such as ash, soil, sand, and etc. as handwashing agents in place of soap, are classified as having a limited service. And, households without a facility are categorized as no facility.<sup>9</sup>

In terms of **schools**, the JMP service ladder puts forth the following classification. "Schools with handwashing facilities with water and soap available at the time of the questionnaire or survey are considered to have 'basic' service. Those with handwashing facilities that have water available at the time of the questionnaire or survey, but no soap, are considered to have 'limited' service, while schools with no facilities or no water available for handwashing are classified as having 'no service'. "<sup>10</sup>

<sup>8</sup> State of the World's Hand Hygiene, 2021  
<sup>9</sup> <https://washdata.org/monitoring/hygiene>  
<sup>10</sup> <https://washdata.org/monitoring/schools>

## D. MEASURING HAND HYGIENE (CONT.)

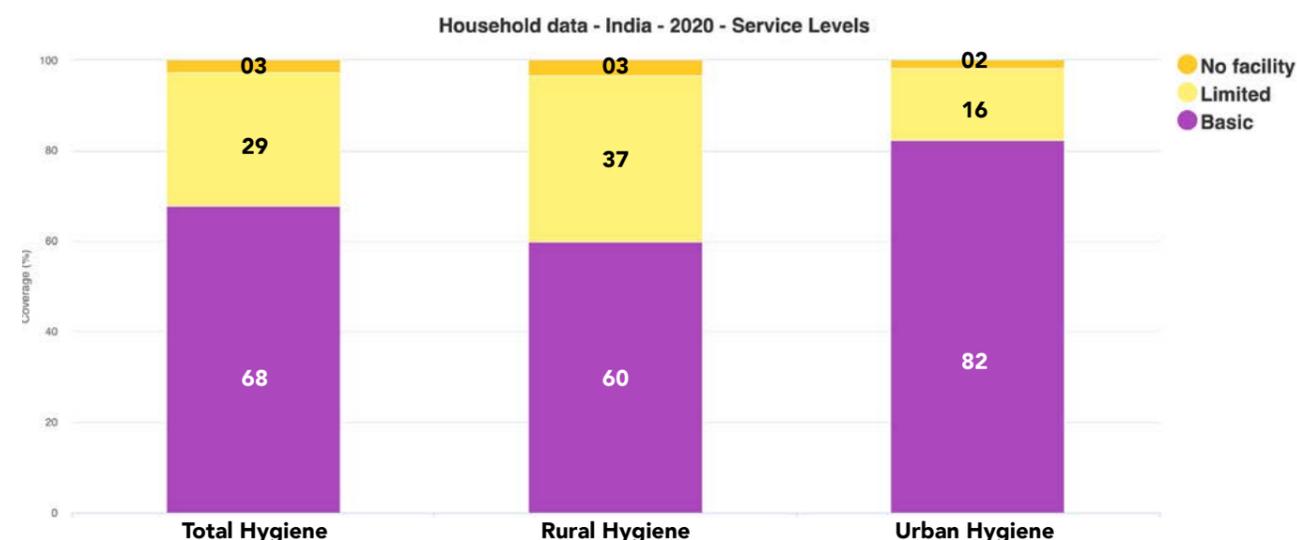
In terms of **healthcare facilities**, the service ladder classification is – Healthcare facilities with the presence of either alcohol hand-rub or a basin with water and soap at points of care<sup>11</sup>, and of handwashing facilities with water and soap in toilets, are considered to have 'basic' service. Health care facilities with hand hygiene materials at either points of care or the toilets, but not both are considered to have limited service, while those with no hand hygiene stations or with no cleansing materials are classified as having no service.

For schools and healthcare facilities, the JMP service ladder also mentions an 'advanced'

category. In schools, an advanced level for hygiene might include tracking if handwashing facilities are available at critical times (before eating and after using the toilet), if they are accessible to all users, and if menstrual hygiene education and products are provided. An advanced level for hygiene in health care facilities might include availability of hand hygiene promotional materials near hand hygiene stations and/or the patient waiting area, or if hand hygiene facilities are accessible to all staff and patients.<sup>12</sup>

In terms of data, the latest JMP report provides the following information.

**Chart 1: Household Hygiene Service Levels, 2020**



As shown in Chart 1, in India 68% of the population has access to basic hygiene services i.e. access to availability of handwashing facility on premises (in household) with soap and water. In rural India, 60% of the population, whereas in urban India 82% of the population has access to Basic hygiene services in their household. 29% of India's total population has

access to handwashing facility on premises, however, lack either soap or water in the same. 37% of rural and 16% of urban India, respectively, have access to hygiene services falling in the Limited category. Around 3% of total and rural India population, and 2% of urban India population have access to no handwashing facility on premises.

<sup>11</sup> Points of care are defined here as any location in the outpatient setting where care or treatment is delivered (i.e. consultation/exam rooms).  
<sup>12</sup> <https://washdata.org/monitoring/health-care-facilities>

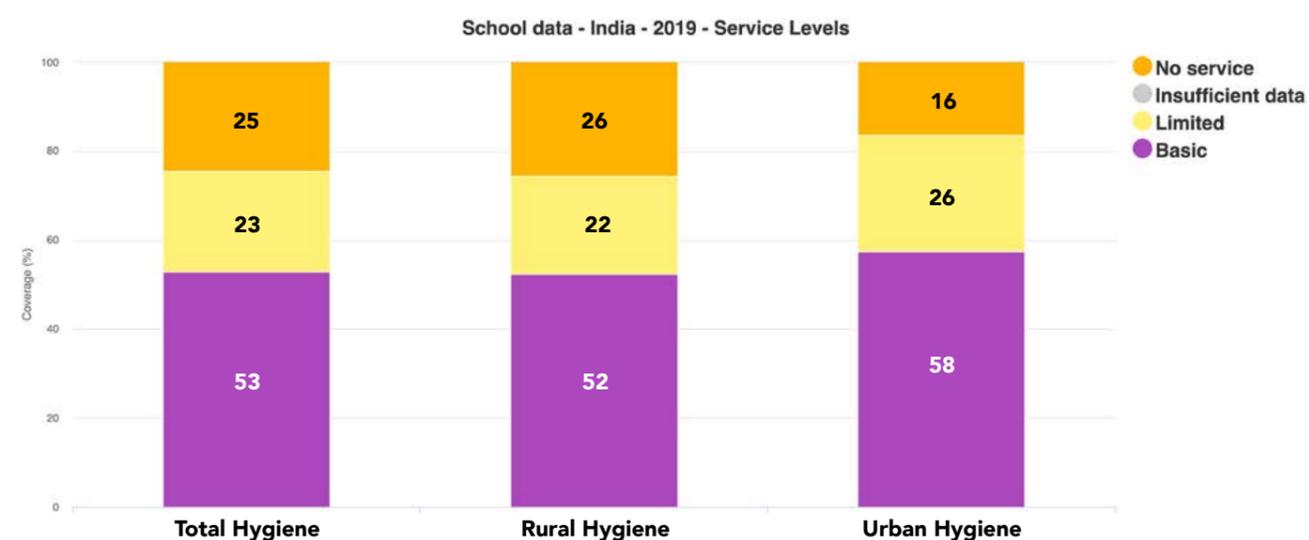
## D. MEASURING HAND HYGIENE (CONT.)

In terms of hygiene service levels in schools (Chart 2), the data states that 53% of the total, 52% of the rural, and 58% of the urban school age population in India, respectively, have access to basic hygiene services in schools i.e., handwashing facility with soap and water, at least at the time of the survey. 23% of the total, 22% of the rural, and 26% of the urban school age population in India, respectively, have access to limited hygiene services

in schools i.e., schools with handwashing facilities with water but not soap. 25%, 26%, and 16% of total, rural, and urban school population, respectively, have access to no handwashing facility or water in schools.

Due to insufficient data, the hygiene service levels in healthcare facilities in India is not known.

Chart 2: School Hygiene Service Levels, 2019



### BOX 2: HOW IS JMP INFORMATION COLLECTED?

JMP updates its global databases every two years, incorporating the latest available national data for the SDG indicators. JMP gives preference to population-based sources of data such as censuses and household surveys, over administrative records. Through the WHO and UNICEF country offices, JMP also holds country consultations to review, validate the national datasets in terms of completeness or correctness, and verify their interpretation. In even years, the consultations are held on WASH in households, while in odd years the consultations are on WASH in schools and WASH in health care facilities.

## E. MONITORING HAND HYGIENE IN INDIA



### HOUSEHOLD

In India, national level data on hand hygiene is collected through certain surveys. Such as the **National Family Health Survey (NFHS)** - a large-scale, multi-round survey on fertility, infant and child mortality, the practice of family planning, maternal and child health, reproductive health, nutrition, anaemia, and utilization and quality of health and family planning services in India. The survey is conducted in a representative sample of households throughout India. There have been 5 surveys since 1992-93, with the latest one in 2019-20. The NFHS round 4 (2015-16) and round 5 (2019-20) questionnaires, both, have observation-based questions for the household on the place of hand washing, availability of water and soap therein. The concerned ministry for NFHS is the Ministry of Health and Family Welfare.

The **National Sample Survey (NSS)** is a large scale sample survey being conducted since 1950-51, on diverse fields, all over India. Primarily data are collected through nation-wide household surveys on various socio-economic subjects.<sup>13</sup> The subject of the 76th round (and the 65<sup>th</sup> and 69<sup>th</sup> rounds before it) of NSS (July-December 2018) was - Drinking Water, Sanitation, Hygiene and Housing condition in India. As part of this round, information on the practice of hand washing, in terms of when (before meal and after defecation) and how (use of water and soap, use of water and ash/mud/ sand etc. and use of water only) was collected.



### SCHOOL

The **District Information System for Education (DISE)** was launched in 1995 as a School-based Computerized Information System, for the purpose of monitoring and implementation of a particular primary education programme. Initiated by the Ministry of Education<sup>14</sup> (MoE), the Government of India, DISE has over years been modified to collect data from all recognized primary, upper primary and primary/upper primary sections of the secondary and higher secondary schools including unrecognized schools. In addition, states/districts have flexibility of adding supplementary variables depending upon their requirements. In 2012-13, the Unified District Information System for Education (UDISE) was initiated, integrating DISE for elementary and secondary education. The present UDISE+, an online system collecting real time data since 2018-19, is an updated and improved version of UDISE. With the school as the unit of data collection and district as the unit of data distribution, the UDISE+ collects information from all schools imparting formal education from Classes I to XII, annually.

<sup>13</sup> The subject for the different rounds is decided on the basis of a 10 year cycle, wherein 1 year is devoted to Land and Livestock Holdings, Debt and Investment; 1 year to Social Consumption (education, health care, etc.), 2 years to quinquennial surveys on household consumer expenditure, employment & un-employment situation and 4 years to non-agricultural enterprises, namely, manufacturing, trade and services in un-organized sector. The remaining 2 years are for open Rounds in which subjects of current/special interest on the demand of Central Ministries, State Governments and research organizations are covered. Source: <http://mospi.nic.in/socio-economic-survey>

<sup>14</sup> Earlier known as the Ministry of Human Resource Development.

## MONITORING HAND HYGIENE IN INDIA (CONT.)

### SCHOOL

UDISE+ collects information on school profile, physical infrastructure, teachers, enrolments, and examination results. The questions on physical infrastructure include presence of hand washing facility in schools.

The MoE launched the ‘Swachh Bharat Swachh Vidyalaya’ (SBSV) initiative in 2014 to ensure that every school in India has functioning and well-maintained water, sanitation, and hygiene facilities. The initiative also gives emphasis to promoting safe and appropriate hygiene practices in schools and behaviour among children. The **Swachh Vidyalaya Puraskar (SVP)** was launched in 2016-17 to honour schools that have undertaken significant steps towards fulfilling the mandate of the SBSV initiative, annually. The list of indicators to adjudge the schools are categorized under five heads - Water, Toilets, Handwashing, Operations and Maintenance, and Behaviour Change and Capacity building. The assessment questions on hand hygiene include – source of water for handwash, availability of handwashing facility after toilet use and before meal, availability of soap after toilet use and before meal, practice of handwashing before meal, suitability of handwashing facility for children of all age groups, supervision of handwashing, activities undertaken to spread awareness of handwashing, and hand hygiene promotion. The SVP is awarded to schools that apply for consideration on the basis of self-assessment, and then verified.

The **National Annual Rural Sanitation Survey (NARSS)** in India was initiated in the year 2017 to measure the performance of the states with respect to the goals of Swachh Bharat Mission. Till now three rounds of NARSS have been completed- NARSS-1 in 2017-18, NARSS-2 in 2018-19 and NARSS-3 in 2019-20. Launched by the Ministry of Jal Shakti, the survey includes indicators on observing hand hygiene in schools in terms of observation of the practice of hand washing in schools, particularly the place wherein hands are washed.

### HEALTHCARE FACILITIES

The Ministry of Health and Family Welfare, following the launch of Swachh Bharat Mission, launched **Kayakalp** to complement the goals of the latter. The aim of the initiative is to improve and promote cleanliness, hygiene, waste management and infection control practices in public health care facilities. through incentivising and recognising such public healthcare facilities that show exemplary performance in the same. Kayakalp provides a list of indicators against which public health centres are to be scored. One of the indicators listed under the section of infection control is hand hygiene. The scoring for hand hygiene is done on the basis of: Availability of sink and running water at point of use, display of Hand washing Instructions, adherence to 6 steps of Hand washing, awareness of staff in terms of when to hand wash. The process for Kayakalp award assessment includes an annual internal assessment, followed by peer assessment, and nomination. While Kayakalp provides indicators, data is not collected on the basis of the same.

Table 1 below provides a summary of the existing hand hygiene monitoring systems in India, the indicators covered and the gaps therein.

Table 1: Existing Hand Hygiene Monitoring Systems

MONITORING SYSTEM	INDICATOR	GAPS	LINK
<b>HOUSEHOLD</b>			
<b>National Family Health Survey (NFHS) – 4 (2015-16)</b>	Observation based questions on: <ul style="list-style-type: none"> <li>- Where members of the household wash their hands</li> <li>- Availability of water</li> <li>- Availability of soap/detergent or ash/mud/sand</li> </ul>	Not an annual monitoring system	<a href="#">Click here</a>
<b>National Sample Survey (NSS) 76 Round (2018)</b>	Interview based questions on: <ul style="list-style-type: none"> <li>- Whether household members regularly wash their hands before meal?</li> <li>- If yes, then with what                             <ul style="list-style-type: none"> <li>• soap/detergent</li> <li>• water and ash/mud/sand</li> <li>• water only</li> </ul> </li> <li>- Whether household members regularly wash their hands after defecation</li> <li>- If yes, then with what                             <ul style="list-style-type: none"> <li>• soap/detergent</li> <li>• water and ash/mud/sand</li> <li>• water only</li> </ul> </li> </ul>	Not an annual monitoring system	<a href="#">Click here</a>
<b>SCHOOL</b>			
<b>UDISE+</b>	Schools by management and availability of hand wash facility	Does not discuss critical factors that affect usage of the facility, for instance – functionality, sufficiency, location, knowledge of the students, and more	<a href="#">Click here</a>
<b>Swachh Vidyalaya Puraskar</b>	<ul style="list-style-type: none"> <li>- Availability of handwashing facility after toilet use and before meal</li> <li>- Availability of soap after toilet use and before meal</li> <li>- Practice of handwashing before meal</li> <li>- Suitability of handwashing facility for children of all age groups</li> </ul>	The indicators exist more as a checklist for handwash in schools. Schools are expected to self-assess on the basis of the given checklist. The indicators are not used for data collection	<a href="#">Click here</a>

MONITORING SYSTEM	INDICATOR	GAPS	LINK
<b>Swachh Vidyalaya Puraskar</b> (Contd.)	<ul style="list-style-type: none"> <li>- Supervision of handwashing</li> <li>- Activities undertaken to spread awareness of handwashing</li> <li>- Hand hygiene promotion</li> <li>- Source of water for hand washing, after toilet use and before meal.</li> </ul>		
<b>National Annual Rural Sanitation Survey (NARSS) -3 (2019-20)</b>	<p>Observation to check schools in ODF and non-ODF villages for:</p> <ul style="list-style-type: none"> <li>- Availability of only water near the toilet or water point</li> <li>- Soap available near the toilet or water point</li> <li>- Both water &amp; soap available near the toilet or water point</li> <li>- Neither soap nor water available near the toilet</li> </ul>	Does not discuss critical factors that affect usage of the facility, for instance – functionality, sufficiency, location, knowledge of the students, and more	<a href="#">Click here</a>
<b>Kayakalp</b>	<p>Observation based questions on-</p> <ul style="list-style-type: none"> <li>- Availability of Sink and running water at point of use</li> <li>- Display of Handwashing Instructions</li> </ul> <p>Interview questions on:</p> <ul style="list-style-type: none"> <li>- Adherence to 6 steps of handwashing</li> <li>- Staff is aware of when to hand wash</li> </ul>	The indicators serve as a checklist for healthcare facilities to self-assess. The indicators are not used to collect data	<a href="#">Click here</a>

**HOUSEHOLD, SCHOOLS, AND HEALTHCARE FACILITIES**

<b>JMP</b>	<p><b>Household:</b></p> <ul style="list-style-type: none"> <li>- Surveyor visits the handwashing facility and observes if water and soap are present.</li> </ul> <p><b>School:</b></p> <ul style="list-style-type: none"> <li>- Observation to answer if water and soap available at the time of the questionnaire or survey.</li> <li>- For an 'advanced' level in the hygiene ladder, may include collecting information on availability of handwashing facilities at critical times (before eating and after using the toilet), accessibility to all users, and provision of menstrual hygiene education and products.</li> </ul>	Data is compiled from national data sources	<a href="#">Click here</a>
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MONITORING SYSTEM	INDICATOR	GAPS	LINK
<b>JMP</b> (Contd.)	<p><b>Healthcare facilities:</b></p> <ul style="list-style-type: none"> <li>- Observation to answer if there is a functional (with water and soap and/ or alcohol based handrub) hand hygiene facility at points of care on the day of the survey.</li> <li>- Observation to answer if a functional handwashing facility (with water and soap and/ or alcohol based handrub) at one or more toilets on the day of the survey</li> </ul>		

It must be mentioned that several ministries maintain dashboards and monitoring systems that address topics close to hand hygiene. Table 2 provides a snapshot of some of the related schemes/ programmes/ initiatives reported on the dashboards of four ministries,

namely – Ministry of Housing and Urban Affairs (MoHUA), Ministry of Panchayati Raj (MoPR), Ministry of Jal Shakti (MoJS) and Ministry of Health and Family Welfare (MoHFW). The table points out to the missed opportunity to report on hand hygiene.

**Table 2: Snapshot of Ministries and respective dashboards**

S.NO.	MINISTRY	RELATED ASPECTS REPORTED ON	SOURCE
1.	<b>MoHUA</b>	<p><b>Jal Shakti Abhiyan</b></p> <ul style="list-style-type: none"> <li>• Rainwater harvesting structures installed</li> <li>• Establishments using treated water</li> <li>• Waterbodies rejuvenated</li> </ul> <p><b>AMRUT</b></p> <ul style="list-style-type: none"> <li>• Water Tap Connections</li> <li>• Sewerage Connections</li> </ul> <p><b>SBM</b></p> <ul style="list-style-type: none"> <li>• IHHL constructed</li> <li>• CT/PT constructed</li> <li>• Open Defecation Free cities</li> </ul> <p><b>Smart Cities</b></p> <ul style="list-style-type: none"> <li>• Smart Water/ Waste water</li> </ul> <p><b>HRIDAY</b></p> <ul style="list-style-type: none"> <li>• Lakes, Ghats and Heritage Parks</li> <li>• Heritage linked infrastructure</li> </ul>	<a href="http://dashboard.mohua.gov.in/">http://dashboard.mohua.gov.in/</a>
2.	<b>MoPR</b>	<ul style="list-style-type: none"> <li>• Sectoral Analysis of Approved GPDPs</li> <li>• Budget allotted to plans</li> </ul>	<a href="https://egramswaraj.gov.in/gdpUploadReport.do">https://egramswaraj.gov.in/gdpUploadReport.do</a>

Table 2: Snapshot of Ministries and respective dashboards (Contd.)

S.NO.	MINISTRY	RELATED ASPECTS REPORTED ON	SOURCE
3.	MoJS	<b>JJM</b> <ul style="list-style-type: none"> <li>Households with tap water connection</li> <li>Tap water supply in schools/ AWCs/ GPs/ CHCs</li> <li>Status of testing of drinking water samples in 2021-22 (as on date)</li> </ul>	<a href="https://ejalshakti.gov.in/jjmreport/JJMIndia.aspx">https://ejalshakti.gov.in/jjmreport/JJMIndia.aspx</a>
		<b>SBM-G Phase 1</b> <ul style="list-style-type: none"> <li>IHHL built</li> <li>Toilets built</li> <li>ODF Districts</li> <li>ODF GPs</li> <li>ODF villages</li> </ul>	<a href="https://sbm.gov.in/sbmReport/home.aspx">https://sbm.gov.in/sbmReport/home.aspx</a>
		<b>ODF Plus</b> <ul style="list-style-type: none"> <li>Villages having arrangement of Liquid Waste Management</li> <li>Villages with Minimal Stagnant water</li> <li>Community Sanitary Complexes</li> <li>Household Toilets constructed</li> </ul>	<a href="https://sbm.gov.in/phase2dashboard/PhaseII/NationDashboard.aspx">https://sbm.gov.in/phase2dashboard/PhaseII/NationDashboard.aspx</a>
4.	MoHFW <sup>15</sup>	<b>Rural Health Statistics</b> <ul style="list-style-type: none"> <li>Availability of Toilets in Sub-Centers, PHC and CHCs in rural areas</li> </ul>	<a href="https://hmis.nhp.gov.in/">https://hmis.nhp.gov.in/</a>

<sup>15</sup> For MoHFW the rural health statistics report has been used to reflect on the items reported on.

## F. PURPOSE OF THE MONITORING FRAMEWORK

The **purpose of the proposed monitoring framework** is to provide a uniform and robust monitoring framework that would -

1. Provide information to policy makers, implementers, researchers, and others concerned on the status of hand hygiene across different settings and using the same to identify the bottlenecks, prioritise programme initiatives and allocate budgets accordingly. The framework will also enable them to identify key components of intersectoral convergence for measuring hand washing.
2. Provide guidance to the implementers, including the nodal ministry and departments, non-government, community based, and other civil society organisations, to reflect on the progress and effectiveness of the initiatives undertaken to promote hand hygiene for all, review work plan and take corrective steps accordingly.
3. Provide transparency and accountability to the citizens of the country on the role and commitment of the governments (the nodal ministry and relevant departments) to the promotion of hand hygiene for all.
4. Provide information to help plan capacity building and communication interventions.

## G. USERS OF THIS FRAMEWORK

The primary users of the hand hygiene framework and core indicators are following

Table 3: Users of the proposed hand hygiene monitoring framework

CORE USERS	KEY STAKEHOLDERS
<b>POLICY MAKERS</b>	/ <b>Central and State government departments</b> working in both rural and urban areas, along with institutions such as school, anganwadi centres, health care facilities, juvenile and children homes, and public places.
<b>IMPLEMENTORS</b>	/ <b>Organisations working</b> with communities in both rural and urban areas along with institutions such as school, anganwadi, health care facilities, juvenile and children homes, as well as organisations engaged in hygiene research and evaluation of programmes / Includes the <b>nodal central government ministry</b> and nodal department at the state level, non-government, community based, and other <b>civil society organisations</b>
<b>CITIZENS</b>	/ <b>Residents of a district, state and the country</b> can use the framework to understand (and evaluate) the role and commitment of the governments in promotion of hand hygiene for all.

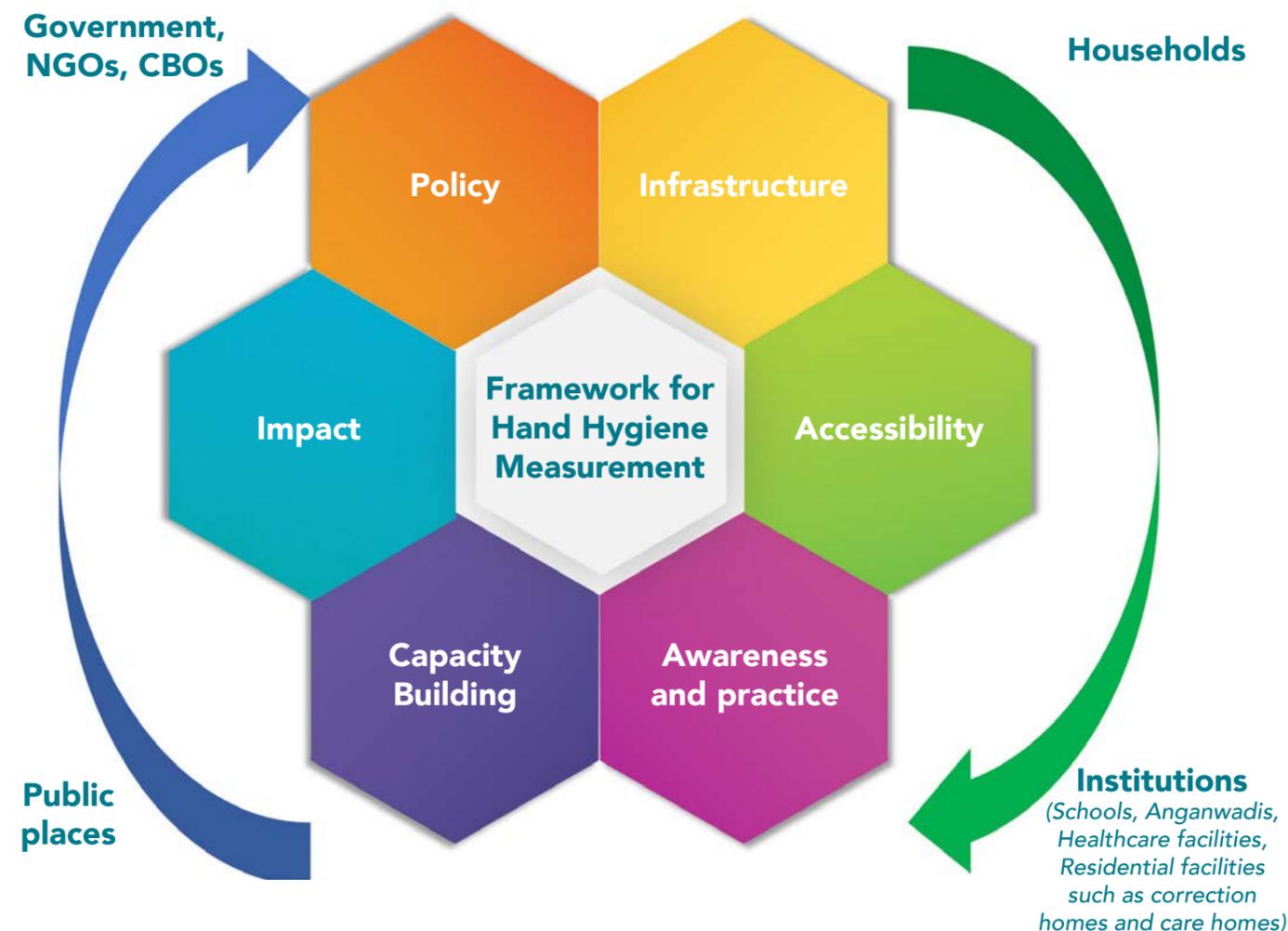
## H. FRAMEWORK FOR MEASURING HAND HYGIENE

The framework for hand hygiene for all comprises of indicators that correspond to six categories –Infrastructure, Accessibility, Awareness and Practice, Capacity building, Policy, and Impact.

The framework is of relevance to all types of settings - households, institutions (including Schools, Anganwadis, Healthcare facilities, Residential facilities such as correction homes and care homes), public places, and for government, non-government, community based, and other civil society organisations. In this document, however, the focus is on households, schools and healthcare centres. With Covid-19, it has become important to monitor handwashing with soap in public

places. This document makes an attempt to suggest indicators for the same as well.

The indicators could be used by the government departments, NGOs, CBOs etc. to determine the gaps in the hand hygiene infrastructure and behaviours. This data will help inform programmes and can be used to engage with government departments/ ministries to address bottlenecks in the system, have better policy framework and implementation, and budget provisioning for the same. This will help to build on a long-term enabling environment which will help for sustaining hand hygiene, helping to deal with COVID-19 like situation in future.



## I. DESCRIPTION OF THE FRAMEWORK

Table 4: Description of the framework

<p><b>INFRASTRUCTURE</b></p> <p>Refers to handwashing facilities or structures or spaces within premises equipped with adequate water and soaps for regular handwashing at household, institutions and public places. Handwashing facilities may be fixed or mobile and include a sink with tap water, buckets with taps, tippy-taps, and jugs or basins designated for handwashing.</p> <p>Soap includes bar soap, liquid soap, powder detergent, and soapy water but does not include ash, soil, sand or other handwashing agents<sup>16</sup></p>	<p><b>ACCESSIBILITY</b></p> <p>Accessibility of handwashing infrastructure is defined as handwashing facilities with soap and water present in household, institutions (Schools, Anganwadis, health care facilities, working site, community toilets, juvenile homes, children homes, etc.) and public places, located at places accessible to the most vulnerable population including Divyang, old people and children. In terms of accessibility hand washing facilities in schools and anganwadis should also consider height appropriate facilities.</p>	<p><b>CAPACITY BUILDING</b></p> <p>Capacity building for handwashing includes hand hygiene workshops/ trainings/ lessons given to field level workers, teachers, healthcare staff, community service provider, youth groups, local government representatives, market associations, community members, and children.</p>
<p><b>AWARENESS &amp; PRACTICES<sup>17</sup></b></p> <p>Awareness and practices include knowledge of and efforts made to make people/children aware of handwashing at critical times i.e. before handling food (eating, cooking or feeding) and after toilet use (or handling child faeces), and the method of proper handwashing.</p>	<p><b>POLICY</b></p> <p>Policy is an intrinsic part of the framework which includes governments' role and ownership on hand hygiene programming in the country. This includes developing a hand hygiene strategy or plan for the centre and states, budgetary allocations, and setting up of routine monitoring system for hand hygiene.</p>	<p><b>IMPACT</b></p> <p>Impact of hand hygiene is defined as long term effect of hand hygiene activities which leads to reduction in diseases rate such as diarrhoea, acute respiratory infection among children.</p>

<sup>16</sup> <https://washdata.org/monitoring/hygiene;>

<sup>17</sup> Actual practice of handwashing with soap is difficult to monitor at scale. However, evaluation of small sample can inform qualitatively the actual practice of handwashing with soap.

## J. PROPOSED INDICATORS

This section provides indicators for the elements of hygiene that need to be monitored as mentioned in the framework above. Each of these indicators have been explained to provide the purpose and meaning of the same.

The indicators can be captured through –

- large scale national surveys;
- government administration/MIS system;
- hand hygiene programming by partner organization, NGOs/CBOs.

The indicators can be used to create a standardized comprehensive list to capture information across settings, including in emergency WASH settings. This will help different organizations working towards similar objectives to have consistent data source which can be cross compared for effective advocacy, leading to improved health conditions especially among children. It is important that for each of the settings, whether household, or institutions, where people congregate or reside, such as schools, healthcare centres, night shelters, correctional

homes the number of users – i.e. the number of residents, students, teachers, inhabitants, healthcare staff, average number of patients per day (outpatients/ in patients) - need to be collected.

The indicators mentioned here are applicable to households, and institutions. Some indicators have been explained for the particular context of schools and health institutions, owing to the existence of guidelines for the same.

Covid-19 has highlighted the importance of practicing handwashing with soap in public places, and thus the need to monitor the same. In the working paper<sup>18</sup> by the Monitoring Working Committee of the UNICEF and WHO Hand Hygiene 4 All, public spaces are defined as all public buildings and transport hubs - such as markets, shops, places of worship, and train or bus stations. The indicators proposed here are applicable to public places as well. The need to collect the number of users/ visitors of the public place at a particular time is critical.

### Infrastructure

The following set of indicators refer to the presence of handwashing facilities/ structures/ spaces equipped with adequate water and soaps.

#### 1. Percentage of households, institutions, and public places with handwashing infrastructure within premises

In this indicator the presence of physical infrastructure, which include handwashing facilities/ structures or even a designated space, equipped with water and soap, within the premises of a household, institution or public place is taken into consideration.

It must be noted that for institutions, it is important that the handwashing infrastructure present **should be sufficient as per norms (where they exist)** for the number of individuals in them or visiting the institutions.

<sup>18</sup> HH4A Monitoring Working Committee. 2021. Mapping and gap analysis of tools designed to collect data on hand hygiene in public spaces

In schools, the Swachh Vidyalaya handbook states, “sufficient group handwashing facilities allow groups of 10-12 students to wash their hands at the same time. The handwashing facility should be simple, scalable, and sustainable, relying on minimum water.”<sup>19</sup> The guideline suggests that the handwashing station should be big enough to accommodate 10-12 students at once. However, it does not specify the handwash facility to student ratio.

As per WHO standards, in healthcare facilities, at least two handwashing basins should be provided in wards with more than 20 beds.<sup>20</sup>

Defining sufficiency for public places will depend on multiple factors – time i.e. when it is open (day/ night/ both) and duration for which it remains open; size, including if the place has a clearly defined boundary; the usage of the space, including the number of visitors in a day, moments of crowding and size of floating population, the demographics of the users/ visitors, the period of their stay, and so on. The WHO recommends that the quantity and usability of the hand hygiene stations should be adapted to the type (e.g. young children, elderly, those with limited mobility) and number of users to better encourage use and reduce waiting time.<sup>21</sup>

A table to capture the reasons for lack of infrastructure will enable to understand the roadblock and take corrective action towards hand hygiene for all.

Table 5: Reasons for lack of handwash infrastructure

	Features (Tick as many as applicable)	Reasons (Tick as many as applicable)
Status of handwashing infrastructure within premises.	<input type="checkbox"/> Lack of physical handwashing facility/ structure	<input type="checkbox"/> Lack of finance <input type="checkbox"/> Lack of knowledge on importance <input type="checkbox"/> Lack of interest <input type="checkbox"/> Any other reason
	<input type="checkbox"/> The facility/ structure is not functional (does not work, is broken, etc.)	<input type="checkbox"/> Lack of finance <input type="checkbox"/> Lack of knowledge on importance <input type="checkbox"/> Lack of interest <input type="checkbox"/> Any other reason
	<input type="checkbox"/> Lack of water	<input type="checkbox"/> Lack of finance <input type="checkbox"/> Lack of knowledge on importance <input type="checkbox"/> Lack of interest <input type="checkbox"/> Any other reason
	<input type="checkbox"/> Lack of soap	<input type="checkbox"/> Lack of finance <input type="checkbox"/> Lack of knowledge on importance <input type="checkbox"/> Lack of interest <input type="checkbox"/> Any other reason
	<input type="checkbox"/> There is no designated space for handwashing	<input type="checkbox"/> Lack of finance <input type="checkbox"/> Lack of knowledge on importance <input type="checkbox"/> Lack of interest <input type="checkbox"/> Any other reason
	<input type="checkbox"/> In institutions and public places, handwashing infrastructure present is not sufficient for the number of users	<input type="checkbox"/> Lack of finance <input type="checkbox"/> Lack of knowledge on importance <input type="checkbox"/> Lack of interest <input type="checkbox"/> Any other reason

<sup>19</sup> Page 17. Clean India, Clean Schools : A Handbook. Available at [http://103.7.128.243:8080/Eng\\_Swachh-Bharat-Swachh-Vidhalaya.pdf](http://103.7.128.243:8080/Eng_Swachh-Bharat-Swachh-Vidhalaya.pdf)

<sup>20</sup> Adams, J. et al (ed.). 2008. Essential environmental health standards in health care. WHO. Available at file:///F:/Downloads/Essential%20Environmental%20Health%20Standards%20in%20Health%20Care%20(WHO,%202008).pdf

<sup>21</sup> JMP Report on Hand Hygiene in Public Places

## 2. Percentage of Hand washing infrastructure with liquid waste management

It is important to have proper drainage of grey water from the handwashing infrastructure such that it does not collect. **Lack of drainage and consequent stagnation of grey/ waste water may be unpleasant and so deter users from practicing handwashing with soap.** The stagnant water may also become breeding grounds of other vectors and thereby counter the health benefits of handwashing with soap. However, existence of attached drainage with

*the handwashing infrastructure may not be considered a primary indicator for monitoring handwashing with soap.*

The UNICEF factsheet on handwashing facilities states that if no drainage is possible on site, soakaway pits to pour or pipe the wastewater into should be built using rocks/ coarse gravel.<sup>22</sup>

## Accessibility

**The following set of indicators discuss the location of handwashing infrastructure such that is it accessible to the most vulnerable.**

### 3. Percentage of institutions and public places with age-appropriate handwashing infrastructure.

This indicator implies that the handwashing infrastructure present within the premises of an institution or in public places can be used by all age groups<sup>23</sup>, without any other individual's assistance.

For children, the UNICEF factsheet on handwashing stations and supplies for Covid-19 recommends that the height of basin and tap be between 500 and 700 mm.<sup>24</sup>

For the elderly, the handwashing infrastructure should include the necessary support mechanism to provide stability, such as hand-railings.

It must be mentioned here that while this accessibility indicator is limited to institutions and public places, in households as well **measures or necessary support provisions must be made** to ensure that the handwashing facilities are convenient for use by members of age groups that can use the toilet unassisted.<sup>25</sup> For instance, provision of a raised platform such as a stool for young children to be able to use the hand washing facility. Similarly, provision of hand-railing for support for the elderly.

<sup>22</sup> UNICEF Fact Sheet | Handwashing Stations and Supplies for the COVID-19 response. May, 2020. Available at <https://www.unicef.org/media/75706/file/Handwashing%20Facility%20Worksheet.pdf>

<sup>23</sup> The definition of all age groups in this case is limited to those – young or old – that are able to use the toilet on their own i.e., those who do not require the support or assistance of another individual to use the toilet and so do not require the same to wash hands. This category, for example, excludes infants, toddlers, the elderly rendered immobile because of age.

<sup>24</sup> UNICEF factsheet

<sup>25</sup> The category of those who can use 'toilet unassisted' has been used to define those individuals who are mobile enough to use the toilet on their own, or are not dependent on others for assistance for the same. By extension, it is assumed that the category of those who can use the toilet on their own includes those who can use handwashing infrastructure on their own.

## 4. Percentage of institutions and public places with handwashing infrastructure appropriate for use by Divyang (people with disabilities).

This indicator implies that the handwashing infrastructure present within the premises of an institution and public places can be used by people with disabilities, who can use the toilet unassisted<sup>26</sup>, as well.

For access by people with disabilities, the UNICEF fact sheet on handwashing facilities states that the facilities must enable wheelchair access. Therefore, the height of the basin and tap must not exceed 850 mm. Soap should be placed within the reach of wheelchair users. Further, soap, hot and cold tap and foot pump should be placed consistently at an agreed location to enable visually impaired users to locate them. Further, handwashing facilities should be located on flat level ground,

have ramps, no steps and door widths that are 800 mm for people on wheelchair to be able to access.<sup>27</sup> The path leading up to the handwashing infrastructure should be flat and clear from obstructions and the ramps should have appropriate gradient with sturdy handrails. Further, the ground around the handwashing infrastructure should not be slippery.

This accessibility indicator is limited to institutions and public places. However, in households as well, measures or necessary support provisions must be made to ensure that the handwashing facilities are convenient for use by members of the household who have disabilities.

### 5. Percentage of handwashing infrastructure located nearby the critical points within the premises to encourage handwash practice.

The handwashing infrastructure should be strategically located such that it can't be missed or avoided but influence or encourage handwashing, particularly during critical times.<sup>28</sup>

In a **household**, the critical points are thus inside or near toilets (to encourage handwashing after toilet use) and near where food is prepared or eaten (kitchen/ dining hall) (to facilitate handwashing before eating).

In **schools**, critical points for the location of

handwashing facilities are particularly near toilets and kitchens or dining area. The Swachh Bharat Swachh Vidyalaya handbook specifies that school handwash facilities in toilets must be separate for boys and girls, within their respective toilet blocks. The handbook adds that there have to be additional handwash facilities in the kitchen or midday meal area, outside or away from toilet blocks, to facilitate children to wash hands before and after the midday meal.<sup>29 | 30</sup>

<sup>26</sup> The category of people with disabilities, who are able to use the toilet unassisted includes those who use mobility devices (such as wheel chairs and/ or crutches) but are able to use the toilet on their own, and so are able to use handwashing stations, without the assistance from another individual.

<sup>27</sup> <https://www.unicef.org/media/75706/file/Handwashing%20Facility%20Worksheet.pdf>

<sup>28</sup> Critical times are the essential moments when one should wash hands to reduce the spread of infections, if any. In general, these include - before handling food (eating, cooking or feeding) and after toilet use (or handling of child faeces). The Kayakalp guidelines list 5 key moments for all healthcare workers- before touching a patient, before a cleaning procedure, after body fluid exposure risk, after touching a patient, after touching a patient's surroundings. (The ICDS guidelines for Anganwadis specify that hands need to be washed after visiting toilet, handling raw food, handling waste, touching body parts, carrying out cleaning tasks, and touching non-food surfaced; and, before entering food handling areas, handling cooked food or ready to eat food, and eating).

<sup>29</sup> [http://103.7.128.243:8080/Eng\\_Swachh-Bharat-Swachh-Vidhalaya.pdf](http://103.7.128.243:8080/Eng_Swachh-Bharat-Swachh-Vidhalaya.pdf)

<sup>30</sup> The Operational Guidelines for Food Safety and Hygiene for Supplementary Nutrition under ICDS for Anganwadi centres state that toilets should be provided with soap and, there should be soap available outside the toilet for children to wash hands after each visit.

5. Percentage of handwashing infrastructure located nearby the critical points within the premises to encourage handwash practice.

In the **healthcare setting**, critical points for the location of handwashing facilities are within (operating theatres, wards, consulting rooms, dressing stations, etc.) and in service areas (sterilization, laboratory, kitchen, laundry, showers, toilets, waste zone and mortuary).<sup>31</sup> The Ministry of Health and Family Welfare’s Kayakalp guidelines mention that all clinical areas in the hospital including consultation chambers, nursing stations, phlebotomy centres and critical care areas as well as other relevant areas like toilets, should have handwashing facilities appropriate to the area.

In **public places**, adequate hand washing infrastructure should be present in and outside public toilets. With Covid-19, the WHO recommends that handwashing infrastructure should be available within 5m of all toilets, both public and private. Further it recommends, for public places, the handwashing infrastructure should be located at the entrance, to allow everyone to wash hands before entering or and when leaving, for instance in front of all the public buildings and transport hubs.<sup>32</sup>

A supporting observation based **Qualitative Information System (QIS)** ladder capturing details on presence, durability, accessibility of the facility can provide insights into the sustainability of the practice of hand washing with soap. The QIS ladder will score according to –

- presence of a specific handwashing facility,
- availability of water (including if the water is safe),
- availability of soap;

- location;
- accessibility
- a special/ designated separate handwashing facility;
- durability of the handwashing infrastructure.

**Table 6: Handwashing Infrastructure QIS ladder for Households**

Handwashing Infrastructure QIS ladder for Households <sup>33</sup>	Score Guide	Performance score
<b>Presence of Handwashing Facility</b>		
YES		
If yes, then select the <b>Type of Handwashing Facility</b> (scores based on durability of the facility, ease of use, safe handling of water)		
Hand washing basin with tap (with running water)	2	
Pipe with tap	1.5	
Covered water container with tap	1.5	
Covered water container with ladle or dipper/ mug	1	
Open water container with tap	0.5	
Open water container with ladle or dipper/ mug	0.5	
Tippy tap / treadle tap	1	
Handpump	1	
NO	0	
<b>Availability of Water</b>		
YES	2	
NO	0	
<b>Presence of soap/ soap solution</b>		
YES	2	
NO	0	
<b>Location of handwashing infrastructure</b>		
In or near the toilet	1	
In or near the kitchen	1	
Somewhere within the premises	0.5	

<sup>31</sup> file:///F:/Downloads/Essential%20Environmental%20Health%20Standards%20in%20Health%20Care%20(WHO,%20202008).pdf

<sup>32</sup> JMP 2021, hand hygiene in public spaces

<sup>33</sup> Adapted from IRC SNV, 2014. Sustainable Sanitation and Hygiene for All: Performance Monitoring Guidelines for the Rural SSH4A Multi-Country Programme in Asia.

**Table 7: Handwashing Infrastructure QIS ladder for Institutions and Public Places**

Handwashing Infrastructure QIS ladder for Institutions and Public Places <sup>34</sup>	Score Guide	Performance score
<b>Presence of Handwashing Facility</b>		
YES		
If yes, then select the <b>Type of Handwashing Facility</b> (scores based on durability of the facility, ease of use, safe handling of water)		
Hand washing basin with tap (with running water)	2	
Pipe with tap	1.5	
Covered water container with tap	1.5	
Covered water container with ladle or dipper/ mug	1	
Open water container with tap	0.5	
Open water container with ladle or dipper/ mug	0.5	
Tippy tap / treadle tap	1	
Handpump	1	
NO	0	
<b>Adequacy of handwashing facilities (as per standard ratios) [Number of users per facility i.e. Total number of residents, visitors, staff members divided by the number of facilities]</b>		
YES	1	
NO	0	
<b>Availability of Water</b>		
YES	2	
NO	0	
<b>Presence of soap/soap solution</b>		
YES	2	
NO	0	
<b>Accessibility of handwashing infrastructure</b>		
Accessible to young (as per standards)	1	
Accessible to old	1	
Accessible to people with disabilities	1	
<b>Location of handwashing infrastructure</b>		
At the entrance	1	
In or near the toilet	1	
In or near the kitchen	1	
In or near canteen/ dining area	1	
For healthcare centres, in the critical areas as mentioned in government guidelines (Kayakalp)	1/ N.A	
Somewhere within the premises	0.5	
<b>Is the handwashing infrastructure in good condition (clean, functioning, not broken)<sup>35</sup></b>		
YES	1	
NO	0	

**QIS score key for households**

SCORE	SIGNIFICANCE
7-8	On the right path
5-6	Things can be improved
>5	Things need to be improved

**QIS score key for institutions and public place**

SCORE	SIGNIFICANCE
>13	On the right path
10-13	Things can be improved
>10	Things need to be improved

<sup>34</sup> Ibid.

<sup>35</sup> Good condition of handwashing infrastructure in terms of cleanliness, functionality, etc. is a proxy indicator for regular upkeep (or O&M).

## Awareness and Practice

The following set of indicators refer to the knowledge awareness efforts taken to make people/children aware of the practice of handwashing with soap – the critical times and the method to use.

### 6. Proportion of people /children who know when to wash their hands

This indicator aims to capture people/ children’s knowledge of critical times during which handwashing must be practiced.

consuming and may also involve respondent bias. Respondent’s awareness or knowledge of the same can, however, be taken as a proxy for the practice of the same.

Capturing the practice of handwashing during critical times is difficult as it can be time

### 7. Proportion of people/ children who know how to wash their hands

This indicator aims to capture people/ children’s knowledge of the technique of handwashing.

awareness or knowledge of the right technique, however, can be taken as a proxy for the practice of the same.

Capturing the practice of handwashing is difficult as it can be time consuming and may also involve respondent bias. Respondent’s

The technique of handwashing as provided by the Government of India is given in Annexure 1.

**A supporting response checklist (Table 8) for indicators 6 and 7 can highlight areas that need to be strengthened in hand hygiene messaging.**

**Table 8: Checklist for practice of handwashing with soap**

QUESTION CHECKLIST	RESPONSE (Yes/ No/ N.A.)
<b>When all did you wash your hands in the last 24 hours?</b>	
After toilet use	
After handling child faeces	
Before eating	
Before cooking	
Before feeding	
<b>With what did you wash your hands in the last 24 hours?</b>	
Only water	
Soap and water	
Ash/ mud/ etc. and water	
<b>How did you wash your hands in the last 24 hours?</b>	
Wet	
Lather	
Rinse	



## BOX 3: KNOWLEDGE OF HANDWASHING WITH SOAP AS A PROXY INDICATOR FOR PRACTICE

Knowledge of handwashing with soap, in terms of the critical times, the things to use and the steps to follow, is a proxy indicator for the practice of handwashing with soap. The information on knowledge is easier to collect – it is less resource intensive, can be collected through interviews, and at any point of the day. Thus, information on knowledge of handwashing with soap can be part of regular monitoring information system.

Monitoring the practice of handwashing with soap, on the other hand, requires commitment of time and resources, and is susceptible to respondent bias. One may undertake monitoring of the practice of handwashing with soap in periodic assessments and/or if the regular monitoring information system (on the knowledge of the same) makes glaring revelations.

To monitor handwashing with soap practice the following methods can be considered -

**Structured Observations:** Wherein, an observer is placed in a household for several hours to record the handwashing practice of the household members. The observer obtains rich data in terms of the differential, if any, practices of the various members of the household (mothers, young children, etc.), the critical times of practice, the method used and the cleansing agent used, and so. Structured observations require a skilled observer, are time consuming, and may include social desirability bias because of the presence of an observer.

**Video Observation:** Wherein, cameras are placed in fixed locations to record the movement of the key targets of the observation (e.g., mothers) as they go about with their daily activities. This observation method can capture a large amount of data as it is not restricted by time limitations (as a human observer doing a structure observation does). Additionally, with the option to watch a video repeatedly, the chances of human error in recording are also avoided. Video observation, however, depends on availability of time to analyse the video recorded data.

**Technology based observations:** Wherein, sensors are used to follow the movement of the target of the observation, or number of times of soap use, and more. Such an observation method depends on the availability of the technology, skilled personnel to analysis the data, and is cost heavy.

*Methods sourced from: Ram, P. 2013. "Practical Guidance for Measuring Handwashing Behavior: 2013 Update."*

## 8. Percentage of institutions and public places, where IEC materials on hand hygiene (with information on how and when to wash hands) are displayed at significant locations.

This indicator aims to capture the efforts taken by institutions to encourage the visitors/ residents/ users of the premises to practice handwashing at critical times, using the appropriate technique.

Significant locations within institutions refer to the popular areas that get many footfalls, are visible and are accessible to all (such as the main entrance, the dining area, and so on), as well as areas where the practice of handwashing is likely to take place (such as handwash basins in the toilet/ kitchen) that can remind and re-enforce the message of hand washing with soap.

For **schools**, significant locations for the IEC posters are - inside the toilet complex, areas where meals are served or eaten, and near the handwash stations.<sup>36</sup>

For **healthcare centres**, the Kayakalp guidelines mention that sinks in all clinical areas in the hospital, including consultation chambers, nursing stations, phlebotomy centres and critical care areas such as toilets should have hand washing posters.

For **public places**, likewise, IEC material in the form of visual stickers or painted illustrations can be placed on the tank or above the handwashing station.<sup>37</sup>



### BOX 4: CHECKING IEC MATERIAL

IEC material can be in other media form as well, such as audio-visual messages, played at significant locations or during significant moments (for eg., during lunch break). It is suggested that enumerators record or take pictures of the IEC material shared or displayed in the institution and make note of the key messages that are being disseminated. This information is to be used to assess if the appropriate messages are being disseminated.

## 9. Proportion of schools that took up hygiene awareness interventions (such as celebrating global handwashing day) in the last one year.

This indicator aims to capture hygiene awareness interventions carried out in schools with the aim to promote and encourage adoption of good hand hygiene behaviour.

The messages reiterate the need to practice hand hygiene and highlight the critical times and the correct method of hand washing with soap.

<sup>36</sup> The Swachh Vidyalaya Puraskar assessment criteria, under the category of behaviour change and capacity building, comprises the question – if the school displays posters for promoting hygiene education. However, it does not specify the significant locations at which such posters should be displayed.

<sup>37</sup> John Knight et al. 2020. Technical Guide for handwashing facilities in public places and buildings. WaterAid.

## Capacity Building

The following set of indicators discuss about hand hygiene workshop/training/ lessons given to field level workers, teachers, healthcare staff, community service provider, community, and children.

### 10. Percentage of community service providers, who have been reached through at least one hand hygiene workshop/training in last one year.

This indicator aims to capture capacity building of community service providers through workshops or trainings on hand hygiene. Investing in capacities of community service providers is important as they regularly interact with the community and are often entrusted with the task of dissemination of key messages, such as on health and hygiene. Community service providers are those

individuals, who interact and/ or visit individuals, households, or the community, to provide health, education and other primary services. They are often the ones, who are expected to communicate and deliver awareness messages, such as on hand washing with soap. Such workers include – ASHA workers, ANM workers, teachers, etc.

### 11. Proportion of community members/children who have been reached through at least one hand hygiene workshop/training in last one year.

To ensure that handwashing is practiced correctly, it is important that from time-to-time workshops/ trainings are organised to make the community/children aware, especially in terms of the critical moments and the technique to wash hands. This indicator is

aimed to capture the number of community members/ children who have been reached through such awareness workshops/ trainings in the last one year.



### BOX 5: CHECKING FOR DISAGGREGATED DATA

It will be good to collect disaggregated information on the proportion of men, women, girls, boys reached through at least one hand hygiene workshop/ training in the last one year.

This will provide insights in to if all demographic sections of the society are being equally reached out to through such trainings and workshops.

Further, it is suggested that enumerators collect information on the messages disseminated through such workshop/ trainings to check if the appropriate messages are being delivered to the correct demographic group.

## Policy

The following set of indicators aim to capture the governments' (central and state) commitments to and ownership of hand hygiene programmes. It is expected that at the national or central government level a nodal ministry, and at the state level, a relevant nodal department will coordinate and monitor initiatives across various relevant departments and institutions.

Table 9: Concerned ministries, departments and institutions

#	MINISTRY	RELEVANT DEPARTMENT	RELEVANT INSTITUTIONS
1.	Ministry of Jal Shakti	Department of Drinking Water	
2.	Ministry of Education	Department of Education	Primary schools, senior schools, senior secondary schools, minority schools
3.	Ministry of Health and Family Welfare	Department of Health	Primary Health Centres, District Hospitals, Community Health Centres
4.	Ministry of Women and Child Development	Department of Women Development	Anganwadi centres, Homes for Children and Women
5.	Ministry of Rural Development	Department of Rural Development	
6.	Ministry of Panchayati Raj	Department of Panchayati Raj	Panchayat Bhawan
7.	Ministry of Housing and Urban Affairs	Department of Urban Development	

### 12. There is a separate hand hygiene policy or hand hygiene is explicitly addressed in government policies at the centre and state levels

The purpose of this indicator is to capture if the governments at centre and states have significantly addressed hand hygiene in their existing policies or have a separate plan,

strategy, or roadmap for the promotion of hand washing with soaps. It is important that the policies with financial commitments.

### 13. Existence of a dedicated annual budget for the promotion of hand hygiene

This indicator intends to capture the financial resources allocated by the relevant ministry (national/ centre) and departments (state and district) for the promotion of handwashing with soap. This will take into consideration the

annual financial commitments, which over the course of a period of time will also provide a trend in terms of the importance given to handwashing with soap.

### 14. Percentage of the annual hand hygiene budget sanctioned vs the annual hand hygiene budget proposed at the various levels of governance.

This indicator aims to assess if the annual proposed budget for the promotion of handwashing with soap of the relevant ministry

and departments have been sanctioned to carry out the activities as mentioned in the plan/ strategy (as mentioned in indicator 12).

### 15. Percentage of sanctioned annual hand hygiene budget utilized as planned at the various levels of governance.

With this indicator the purpose is to assess if the sanctioned budget of the government ministry/ departments meant for the

promotion of handwashing with soap is being utilized on the planned initiatives.

### 16. Government departments have a system of a routine (at least once a year) monitoring of the hand hygiene programmes/ initiatives

The nodal ministry/ departments have monitoring mechanisms in place to capture the status of handwashing with soap

infrastructure and practices, and the progress against their plans and financial commitments.

### 17. Government monitoring data is publicly available

The nodal ministry or the departments have a system (platform/dashboard) in place with the monitoring data made publicly available. Further, data from any survey

conducted on hand hygiene by the central/ state governments is made available in public domain.

A summary table (as given below) may help in capturing the data for all the indicators (12-17) under the Policy section

Table 10: Summary table for Policy indicators

	Indicators	CENTRE	STATE	DISTRICT	GP
<b>HAND HYGIENE POLICY</b>					
1.	Hand Hygiene adequately addressed in existing policy or there exists separate policy for hand hygiene			NOT APPLICABLE	
2.	Hand hygiene policy has financial commitment				
<b>BUDGET</b>					
3.	Annual financial commitments for hand hygiene promotion (in INR)				
4.	Annual sanctioned budget for hand hygiene promotion (in INR)				
5.	Annual expenditure on hand hygiene promotion (in INR)				
<b>MONITORING</b>					
6.	Monitoring system in place				
7.	Frequency of monitoring				
8.	Monitoring data publicly available				

## Impact

Ascertaining impact of any initiative/ activity takes time and depends on multiple factors. The purpose of the impact indicators is to assess the long-term effect of hand hygiene activities leading to reduction in diseases, such as diarrhoea, acute respiratory infection among children, and so on.

Although it may be possible to draw a conclusion on the impact only on the basis of a 3-5 year trend, it is important that data be collected every year.

### 18. Percentage of children under 5 years of age with diarrhoea at national/state/district levels.

This indicator captures the percentage of children under 5 years of age who have or are suffering from diarrhoea in the year of the survey.

### 19. Percentage of children under 5 years of age with acute respiratory infection at national/state/ district levels.

This indicator captures the percentage of children under 5 years of age who have suffered or are suffering from acute respiratory infection in the year of the survey.

### 20. Percentage of children under 5 years of age who are underweight at national/ state/ district levels

This indicator captures the percentage of children under 5 years of age who weigh less than they are supposed to at their age in the year of the survey.

### 21. Percentage of people/ children with Health care-associated infection at national/ state/ district levels.

This indicator captures the percentage of people/ children, who have suffered or are suffering from Health care-associated infections, or infections acquired in health-care settings i.e. an infection fostered by the hospital environment, such as one acquired during a hospital visit, in the year of the survey.

*It must be noted that for indicators under the section of impact, other existing government monitoring data sets (on health) are to be used. It is important that it be checked beforehand that*

- 
- a) If the information is readily available
- b) If the information is reliable

Table 11. Summary of the Core Indicators

<p><b>INFRASTRUCTURE</b></p> <p><i>Essential:</i></p> <ul style="list-style-type: none"> <li>/ Percentage of households, institutions, and public places with <b>handwashing infrastructure</b> within premises</li> </ul> <p><i>Good to know, non-essential</i></p> <ul style="list-style-type: none"> <li>/ Percentage of Hand washing infrastructure with <b>liquid waste management</b></li> </ul>	<p><b>ACCESSIBILITY</b></p> <ul style="list-style-type: none"> <li>/ Percentage of institutions and public places with <b>age-appropriate</b> handwashing infrastructure</li> <li>/ Percentage of institutions and public places with handwashing infrastructure <b>appropriate for use by Divyang</b> (people with disabilities).</li> <li>/ Percentage of handwashing infrastructure <b>located nearby the critical points within the premises</b> to encourage handwash practice.</li> </ul>	<p><b>CAPACITY BUILDING</b></p> <ul style="list-style-type: none"> <li>/ Percentage of <b>community service providers</b>, who have been reached through at least one <b>hand hygiene workshop or training</b> in last one year.</li> <li>/ Proportion of <b>community members/children</b> who have been reached through at least one <b>hand hygiene workshop or training</b> in last one year.</li> </ul>
<p><b>AWARENESS &amp; PRACTICES</b></p> <ul style="list-style-type: none"> <li>/ Proportion of people or children who know <b>when to wash their hands</b></li> <li>/ Proportion of people or children who know <b>how to wash their hands</b></li> <li>/ Percentage of institutions and public places, where <b>IEC materials</b> on hand hygiene (with information on how and when to wash hands) are <b>displayed at significant locations</b>.</li> <li>/ Proportion of schools that took up <b>hygiene awareness interventions</b> (such as celebrating global handwashing day) in the last one year.</li> </ul>	<p><b>POLICY</b></p> <ul style="list-style-type: none"> <li>/ There is a separate hand <b>hygiene policy</b> or hand hygiene is explicitly addressed in government policies at the centre and state levels</li> <li>/ Existence of a <b>dedicated annual budget</b> for the promotion of hand hygiene</li> <li>/ Percentage of the annual hand hygiene <b>budget sanctioned</b> vs the annual hand hygiene budget proposed at the various levels of governance.</li> <li>/ Percentage of sanctioned annual hand hygiene <b>budget utilized</b> as planned at the various levels of governance.</li> <li>/ Government departments have a system of a <b>routine</b> (at least once a year) <b>monitoring</b> of the hand hygiene programmes &amp; initiatives</li> <li>/ Government <b>monitoring data is publicly available</b></li> </ul>	<p><b>IMPACT</b></p> <ul style="list-style-type: none"> <li>/ Percentage of <b>children under 5 years of age with diarrhoea</b> at national/state/district levels</li> <li>/ Percentage of <b>children under 5 years of age with acute respiratory infection</b> at either national, state or district levels.</li> <li>/ Percentage of <b>children under 5 years of age who are underweight</b> at either national, state or district levels.</li> <li>/ Percentage of people or children with <b>Health care-associated infection</b> at either national, state or district levels.</li> </ul>

## DATA COLLECTION FOR THE INDICATORS

This section captures against each indicator the frequency and method for the data collection. The table also highlights the indicators which are captured in existing MIS or periodical surveys of the government.

Table 12: Indicators and proposed data collection method

	Proposed Indicators	Proposed frequency of data collection	MIS/ Periodic Surveys or assessment	Proposed method for data collection	Level of collection of data	Adding to JMP report	Related existing indicator
<b>INFRASTRUCTURE</b>							
1.	Percentage of households, institutions, and public places with <b>handwashing infrastructure</b> within premises	Annual	MIS	Observation	Household, Institutions and Public Places	Yes	
2.	Percentage of Hand washing infrastructure with <b>liquid waste management</b>	Annual	MIS	Observation	Household, Institutions and Public Places	No	
<b>ACCESSIBILITY</b>							
3.	Percentage of institutions and public places with <b>age-appropriate</b> handwashing infrastructure	Annual	MIS	Interview and Observation	Institutions and Public Places	Yes	<b>SCHOOLS:</b> Swachh Vidyalaya Puraskar - Suitability of height of handwashing facilities for children of all age groups in the school
4.	Percentage of institutions and public places with handwashing infrastructure <b>appropriate for use by Divyang</b> (people with disabilities).	Annual	MIS	Interview and Observation	Institutions and Public Places	Yes	
5.	Percentage of handwashing infrastructure <b>located nearby the critical points within the premises</b> to encourage handwash practice.	Annual	MIS	Observation	Household, Institutions and Public Places	Yes	<b>SCHOOLS:</b> NARSS 2 - Presence of water and soap near toilet.   Swachh Vidyalaya Puraskar - Availability of water in toilet for handwashing.
<b>AWARENESS AND PRACTICES</b>							
6.	Proportion of people /children who know <b>when to wash their hands</b>	Annual	MIS	Interview	Household and schools	No	<b>HOUSEHOLDS:</b> NSS76: Practice of washing hand before meals.   Practice of washing hands after defecation. <b>SCHOOLS:</b> Swachh Vidyalaya Puraskar - If a supervision exists to ensure students and cooks wash hands before mid-day meal.
7.	Proportion of people/ children who know <b>how to wash their hands</b>	Annual	MIS	Interview	Household and Schools	No	
8.	Percentage of institutions and public places, where <b>IEC materials</b> on hand hygiene (with information on how and when to wash hands) are <b>displayed at significant locations</b> .	Annual	MIS	Observation	Institutions and Public Places	No	
9.	Proportion of schools that took up <b>hygiene awareness interventions</b> (such as celebrating global handwashing day) in the last one year.	Annual	MIS	Interview	Schools	No	<b>SCHOOLS:</b> Swachh Vidyalaya Puraskar - If the school takes up safe hygiene and sanitation education including awareness on hand-washing during morning assembly and in school clubs.
<b>CAPACITY BUILDING</b>							
10.	Percentage of <b>community service providers</b> , who have been reached through at least one <b>hand hygiene workshop/training</b> in last one year.	Annual	MIS	Interview	Line Department at the district and block	No	
11.	Proportion of <b>community members/children</b> who have been reached through at least one <b>hand hygiene workshop/training</b> in last one year.	Annual	MIS	Interview	Household and Schools	No	
<b>POLICY</b>							
12.	There is a separate hand hygiene <b>policy</b> or hand hygiene is explicitly addressed in government policies at the centre and state levels	Annual	MIS	Secondary Research	National and State	No	
13.	Existence of a <b>dedicated annual budget</b> for the promotion of hand hygiene	Annual	MIS	Secondary Research	National, State, District and Gram Panchayat	No	

	Proposed Indicators	Proposed frequency of data collection	MIS/ Periodic Surveys or assessment	Proposed method for data collection	Level of collection of data	Adding to JMP report	Related existing indicator
14.	Percentage of the annual hand hygiene <b>budget sanctioned</b> vs the annual hand hygiene budget proposed at the various levels of governance.	Annual	MIS	Secondary Research	National, State, District and Gram Panchayat	No	
15.	Percentage of sanctioned annual hand hygiene budget <b>utilized</b> as planned at the various levels of governance.	Annual	MIS	Secondary Research	National, State, District and Gram Panchayat	No	
16.	Government departments have a system of a routine (at least once a year) <b>monitoring</b> of the hand hygiene programmes/ initiatives	Annual	MIS	Secondary Research	National, State, and District	No	
17.	Government <b>monitoring data is publicly available</b>	Annual	MIS	Secondary Research	National, State, and District	No	
<b>IMPACT</b>							
18.	Percentage of <b>children under 5 years of age</b> with <b>diarrhoea</b> at national/state/district levels.	Annual	MIS	Secondary Research	National, State and District	No	<b>NFHS</b> - Prevalence of diarrhoea (reported) in the last 2 weeks preceding the survey among children under 5 years of age.
19.	Percentage of <b>children under 5 years of age</b> with <b>acute respiratory infection</b> at national/ state/ district levels.	Annual	MIS	Secondary Research	National, State and District	No	<b>NFHS</b> - Prevalence of symptoms of acute respiratory infection (ARI) in the last 2 weeks preceding the survey among children under 5 years of age.
20.	Percentage of <b>children under 5 years of age</b> who are <b>underweight</b> at national/ state/ district levels.	Annual	MIS	Secondary Research	National, State and District	No	<b>NFHS</b> - Children under 5 years who are underweight (weight-for-age)
21.	Percentage of <b>people/ children with Health care-associated infection</b> at national/ state/ district levels.	Annual	MIS	Secondary Research	National, State and District	No	

## ANNEXURE 1



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