

# HAND HYGIENE FOR ALL INITIATIVE



## Improving access and behaviour in health care facilities

### Purpose of the brief

To provide insights into available strategies and approaches to hand hygiene improvement in health care facilities (HCFs) in support of the new **United Nations Children's Fund (UNICEF)/World Health Organization (WHO) Hand Hygiene for All Initiative**, including sustainable interventions. The brief draws on learning from legacy work and the current evidence base. It emphasizes the synergistic relationship between infection prevention and control (IPC) and water, sanitation and hygiene (WASH) in HCFs and summarizes how joint action and collaboration is essential for improvement in the context of the coronavirus disease (COVID-19) response and beyond.

### Introduction and background

Access to quality health care for all is a human right. As clearly recognized by the United Nations (UN) Sustainable Development Goals 3.8 and 6, it is impossible to succeed in providing quality health care. Shockingly, many HCFs still lack WASH and, by default, cannot implement good IPC practices.

### According to global estimates released in 2020 by WHO/UNICEF:

	<b>1 in 4 facilities lack basic water<sup>1</sup></b>
	<b>1 in 10 facilities have no sanitation<sup>1</sup></b>
	<b>1 in 3 facilities lack hand hygiene facilities at points of care<sup>1</sup></b>
	<b>1 million of the 4.1 million maternal and neonatal deaths per year may be related to unhygienic birthing practices<sup>2</sup></b>

<sup>1</sup> WHO/UNICEF JMP. 2020 (<https://www.washdata.org>, accessed 22 September 2020)).

<sup>2</sup> Blencowe H and Cousens S. Addressing the challenge of neonatal mortality. Trop Med Intern Health 2013; 18: 303–312. (<https://pubmed.ncbi.nlm.nih.gov/23289419/>, accessed 23 June 2020).

**|| The scientific evidence overwhelmingly shows that appropriate hand hygiene is the single most effective action to stop the spread of infection ||**

**↓ 55%** Effective IPC measures could reduce health care-associated infections as much as by 55%<sup>3</sup>.

**↑ 44%** Newborn survival rates could potentially increase by 44% when hand washing and clean birthing kits are in place<sup>2</sup>.

In 2005, WHO launched the First Global Patient Safety Challenge **Clean Care is Safer Care** to which 142 countries pledged their commitment, thus allowing to initiate powerful actions to reduce infections occurring during health care delivery through the promotion of IPC measures and improvements in WASH<sup>4</sup>. Building on this strong foundation, the **SAVE LIVES: Clean Your Hands**<sup>5</sup> global campaign was launched in 2009 by marking the first world hand hygiene day on 5 May and still continues with a different theme proposed each year. In 2003 and 2010, two monumental acknowledgements related to a safer world through improved hand hygiene were made both within and outside of health care and deemed essential to the realization of all human rights<sup>6,7</sup>:

- 1. the right to water that is sufficient, safe, acceptable and physically accessible and affordable, and**
- 2. the right to adequate sanitation.**

Furthermore, the **2018 Global Call to Action on WASH in HCFs by the UN Secretary-General** has elevated this issue among all UN agencies, partners, and Member States.

**Building upon the Global Call, all 194 WHO Member States unanimously approved a resolution on WASH in HCFs at the 2019 World Health Assembly<sup>8</sup>.**

<sup>3</sup> Schreiber PW, Sax H, Wolfensberger A, Clack L, Kuster SP. The preventable proportion of healthcare-associated infections 2005-2016: systematic review and meta-analysis. *Infect Control Hosp Epidemiol* 2018;39:1277–95.

<sup>4</sup> Health care without avoidable infections. Geneva: World Health Organization; 2020 (<https://www.who.int/infection-prevention/publications/ipc-role/en/>, accessed 23 June 2020).

<sup>5</sup> <https://www.who.int/infection-prevention/campaigns/clean-hands/en/>

<sup>6</sup> General comment no. 15: the right to water. Geneva: Office of the United Nations High Commissioner for Human Rights; 20 January 2003 (<https://www.refworld.org/pdfid/4538838d11.pdf>, accessed 23 June 2020).

<sup>7</sup> Sixty-fourth United Nations General Assembly. Resolution A/RES/64/292, July 2010. The human right to water and sanitation (<https://undocs.org/en/A/RES/64/292>, accessed 23 June 2020).

<sup>8</sup> World Health Assembly (WHA 72). 2019. Agenda Item 6.6, Patient safety. Resolution on water, sanitation and hygiene in health care facilities. Geneva: World Health Organization; 2019 ([http://apps.who.int/gb/ebwha/pdf\\_files/EB144/B144\\_R5-en.pdf](http://apps.who.int/gb/ebwha/pdf_files/EB144/B144_R5-en.pdf)).

The resolution calls on countries to strengthen WASH and IPC in HCF by establishing baselines and setting targets, embed WASH and IPC in key health programmes and budgets, and to regularly report on progress. These rights provide an important basis to comprehensively address WASH and IPC needs in HCFs.

In the response to the COVID-19 pandemic, WHO, UNICEF, and other stakeholders called upon governments to place hand hygiene at the heart of strategies to protect patients, communities and health workers from the virus as a basic, doable and simple intervention.

**On 1 April 2020, WHO issued a formal recommendation for all Member States to:**

- 1. Provide universal access to public hand hygiene stations and make their use obligatory, and**
- 2. Improve access to and the practice of hand hygiene in HCFs<sup>9</sup>.**

To support the implementation of these recommendations, on 26 June 2020 WHO and UNICEF launched the new ***Hand Hygiene for All Initiative* which aims to create a culture of hygiene by:**

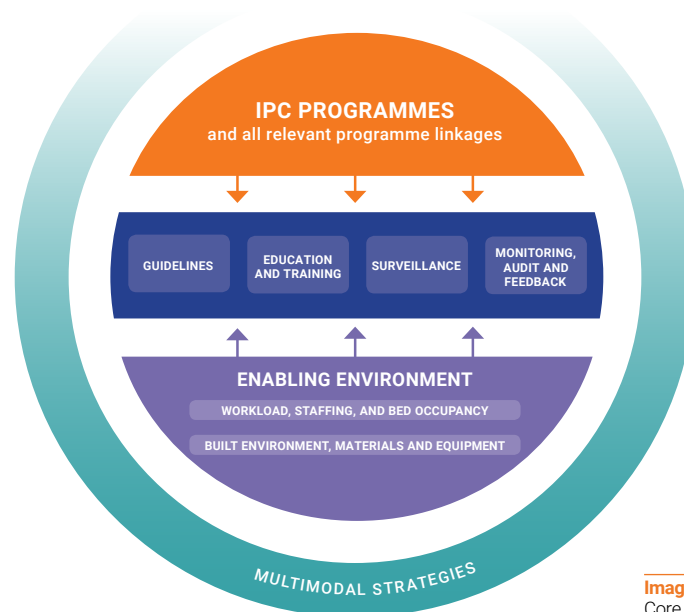
- 1. Reinforcing the importance of hand hygiene to reduce the spread of COVID-19 and other communicable diseases - within the context of the pandemic and beyond - through policies, regulation, innovation, private sector engagement, and behaviour change strategies.**
- 2. Calling to action international partners, national governments, the public and private sectors, the civil society and donors and financiers to accelerate progress on hand hygiene at the global, national and community levels.**

<sup>9</sup> Recommendations to Member States to improve hand hygiene practices to help prevent the transmission of the COVID-19 virus. Geneva: World Health Organization; 2020 (<https://www.who.int/publications-detail/recommendations-to-member-states-to-improve-hand-hygiene-practices-to-help-prevent-the-transmission-of-the-covid-19-virus>, accessed 23 June 2020).



## 1. Hand hygiene at the heart of the core components for effective IPC programmes

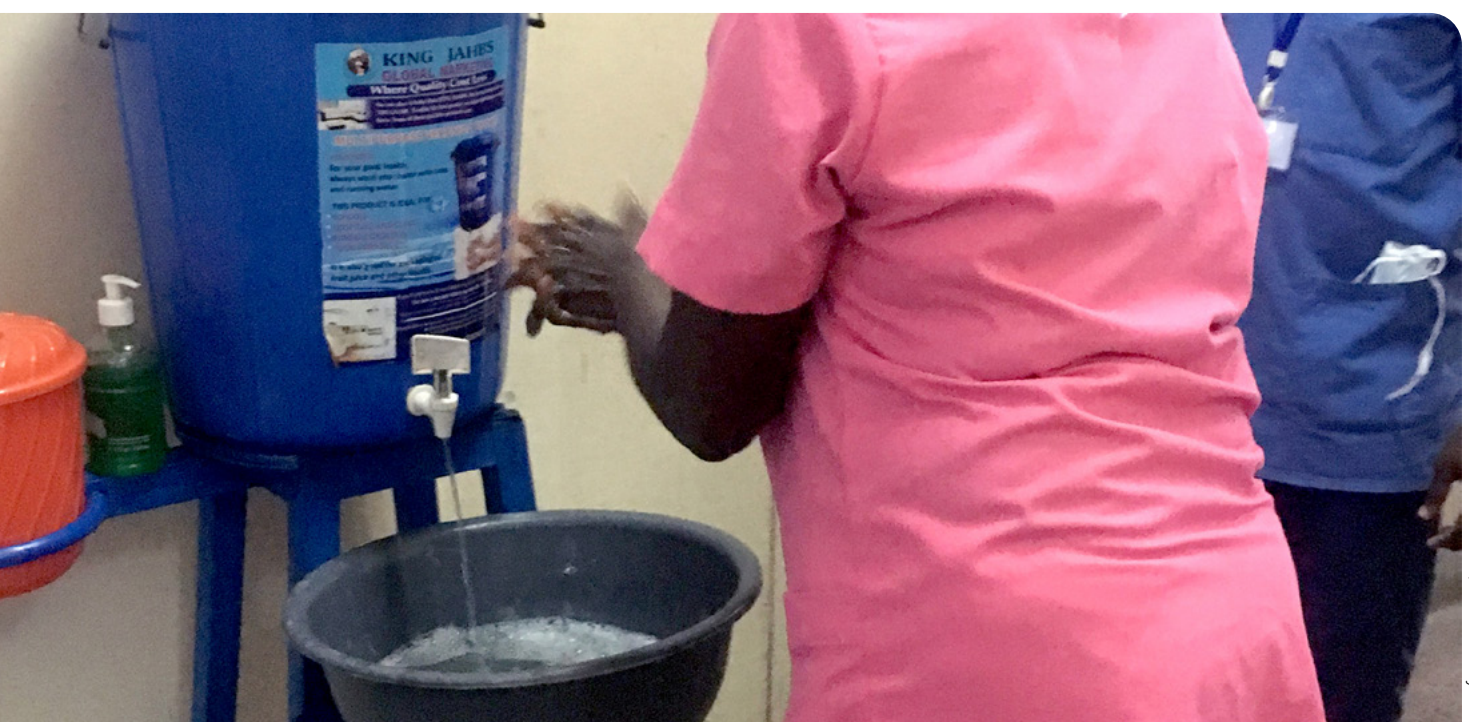
IPC is an evidence-based and practical solution designed to prevent harm to patients and health workers at each and every single health care encounter by stopping the spread of infection through best practices. WHO has identified 8 core components that make IPC programmes impactful and effective<sup>10</sup>.



**Image 1.**  
Core components for effective IPC programmes.

WASH provides the necessary infrastructure, materials and equipment enabling the implementation of appropriate IPC practices and behavioural change among health workers and the community. WASH has critical connections to the IPC core components. To visualize how important it is for all actors to recognize WASH in the role of achieving IPC going forward, Box 1 highlights how WASH forms the building blocks in relation to the IPC core components, and not just where hand hygiene is specifically noted.

<sup>10</sup> Guidelines on core components of infection prevention and control programmes at the national and acute health care facility level. Geneva: World Health Organization; 2016 (<https://www.who.int/infection-prevention/publications/core-components/en/>, accessed 23 June 2020).



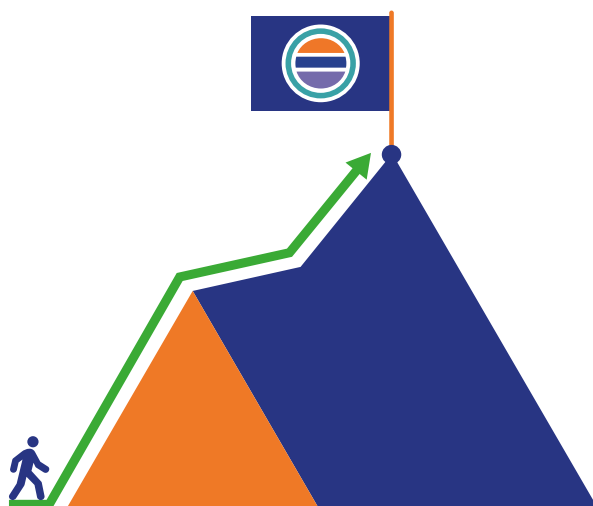
### Box 1

## WASH as building blocks for IPC in health care: a summary of key principles related to the IPC core components

- In the context of **IPC programmes**, the IPC team within a facility should have established links and communication mechanisms, in particular with those providing waste management, sanitation and water supply services.
- **IPC guidelines** should include reference to waste management, adequate access to safe water, a reliable electricity supply, sanitation and environmental cleaning.
- Building and continuously operating and improving the WASH infrastructure is a critical element of **multimodal strategies**, which have proven to be the most successful approach for implementing IPC interventions in health care.
- **IPC monitoring** should provide information on the existence and functioning of the WASH infrastructure, such as water and electricity supplies, toilets, and health care waste disposal and treatment<sup>11</sup>.

To provide clean care, combat outbreaks, antimicrobial resistance and ongoing infections in health care, countries need to have effective IPC programmes and functioning WASH services in place.

To achieve strong, effective IPC programmes at the national and facility level, countries should have at least the **minimum requirements** in place<sup>12</sup> as these represent the starting point for providing basic protection and safety to patients, health workers and visitors, and to progressively fully establish all IPC core components.



**Image 2.**

Minimum versus full requirements to achieve effective IPC programmes.

WASH is represented in the IPC core component 8 (Built environment, materials and equipment for IPC), which recommends that patient care activities should be undertaken in a clean and/or hygienic environment that facilitates practices related to the prevention and control of infection. This includes all elements related to the WASH infrastructure and services, as well as the availability of appropriate IPC materials and equipment. The minimum requirements for core component 8 are summarized in Box 2.

<sup>11</sup> Core questions and indicators for monitoring WASH in health care facilities in the Sustainable Development Goals. Geneva: World Health Organization/UNICEF; 2018 ([https://www.who.int/water\\_sanitation\\_health/publications/core-questions-and-indicators-for-monitoring-wash/en/](https://www.who.int/water_sanitation_health/publications/core-questions-and-indicators-for-monitoring-wash/en/), accessed 23 June 2020).

<sup>12</sup> Minimum requirements for infection prevention and control programmes. Geneva: World Health Organization; 2019 (<https://www.who.int/infection-prevention/publications/core-components/en/>, accessed 23 June 2020).



## Box 2

### Minimum requirements for IPC Core component 8 - Built environment, materials & equipment for IPC.

FACILITY LEVEL	WATER	HAND HYGIENE	SANITATION	OTHER INFRASTRUCTURE
<b>PRIMARY CARE</b>	<ul style="list-style-type: none"> <li>Water always available from a source on the premises.</li> </ul>	<ul style="list-style-type: none"> <li>Hand hygiene facilities always available at the point of care/toilets (alcohol-based hand rub and/or water, soap and towels)</li> </ul>	<ul style="list-style-type: none"> <li>Minimum 2 toilets, one for patients and one for staff, equipped with menstrual hygiene products.</li> <li>Waste management, including waste bins, storage and treatment.</li> </ul>	<ul style="list-style-type: none"> <li>Space for cohorting/isolation</li> <li>Adequate natural ventilation</li> <li>Space for decontamination of reusable medical devices</li> <li>Sufficient and appropriate IPC supplies (that is, personal protective equipment, mops, detergent, etc.).</li> </ul>
<b>SECONDARY AND TERTIARY CARE</b>	<ul style="list-style-type: none"> <li>Water always available on the premises and piped, at a minimum to high risk wards.</li> </ul>		<ul style="list-style-type: none"> <li>Min 2 improved sanitation facilities for outpatients and 1:20 for inpatients</li> <li>All equipped with menstrual hygiene products</li> </ul>	<ul style="list-style-type: none"> <li>Adequate single isolation rooms</li> <li>Adequate natural or mechanical ventilation.</li> <li>Reliable power and electricity, at a minimum to high-risk areas</li> <li>Adequate space for decontamination of medical devices</li> <li>Sufficient IPC supplies.</li> </ul>

These standards draw upon a more comprehensive, but still minimal set of WASH services that should be in place in all HCFs<sup>13</sup>. These include aspects of water quality and quantity, including for cleaning, bathing, drinking, handwashing, sanitation, safe health care waste management, and vector control. Furthermore, more recent WHO guidance on drinking water, sanitation and health care waste provide a strong basis for improving and regulating WASH in HCF<sup>14-16</sup>.

Evidence on hand hygiene supports all the core components and underpins core component 5 (that is, using “multimodal strategies” for effective IPC interventions) in particular<sup>17</sup>.

<sup>13</sup> Essential environmental health standards in health care. Geneva: World Health Organization; 2008 ([https://apps.who.int/iris/bitstream/handle/10665/43767/9789241547239\\_eng.pdf?sequence=1&isAllowed=y](https://apps.who.int/iris/bitstream/handle/10665/43767/9789241547239_eng.pdf?sequence=1&isAllowed=y), accessed 15 June 2020).

<sup>14</sup> Guidelines for drinking-water quality, 4th edition, incorporating the 1st addendum. Geneva: World Health Organization; 2017 ([https://www.who.int/water\\_sanitation\\_health/publications/drinking-water-quality-guidelines-4-including-1st-addendum/en/](https://www.who.int/water_sanitation_health/publications/drinking-water-quality-guidelines-4-including-1st-addendum/en/), accessed 15 June 2020).

<sup>15</sup> Safe management of wastes from health-care activities / edited by Y. Chartier et al. – 2nd ed. Geneva: World Health Organization; 2014. ([https://www.who.int/water\\_sanitation\\_health/publications/wastemanag/en/](https://www.who.int/water_sanitation_health/publications/wastemanag/en/), accessed 5 August 2020)

<sup>16</sup> Guidelines on sanitation and health. Geneva: World Health Organization; 2018. ([https://www.who.int/water\\_sanitation\\_health/publications/guidelines-on-sanitation-and-health/en/](https://www.who.int/water_sanitation_health/publications/guidelines-on-sanitation-and-health/en/), accessed 5 August 2020).

<sup>17</sup> Evidence of hand hygiene as the building block for infection prevention and control. Geneva: World Health Organization; 2017 (<https://www.who.int/infection-prevention/tools/core-components/evidence.pdf?ua=1>, accessed 23 June 2020).

## There are two strong hand hygiene recommendations

made in the WHO guidelines on the core components of IPC programmes<sup>10</sup>, as critical evidence on hand hygiene formed a large part of their development.

1

### The first recommendation from Core Component 8

is that materials and equipment to perform appropriate hand hygiene should be readily available at the point of care. An appropriate infrastructure including the HCF building and the availability of safe water and sanitation facilities according to international and national standards is an essential requirement.

2

### The second recommendation from Core Component 6

stipulates that hand hygiene monitoring and feedback should be a key performance indicator at the national level. Acquiring data and providing timely feedback are critical elements of any effective strategy. They can help to tailor a strategy so that gaps identified can be addressed, thus promoting the ideal behavioural change, that is, sustained hand hygiene by frontline health providers. Similarly, aspects of the infrastructure need to be addressed in order to achieve the standards being monitored. Resources on WASH in HCFs support this step and efforts to align standards should allow the recommendations for obligatory hand hygiene stations to be addressed, as outlined in the improvement strategy.



## 2. Translating guidelines into actions: WHO's strategy and global campaigns on hand hygiene and WASH in HCFs

### WHO's Multimodal hand hygiene improvement strategy (MMIS) and global campaign

Over the last 15 years, WHO has promoted a MMIS and a global campaign to engage and support countries and facilities worldwide to achieve comprehensive enhancement of hand hygiene practices in health care.

**What is the meaning of "multimodal"?** It means that multiple elements, all essential and complementary, must be put in place as part of interventions to achieve outcome improvements and optimal hand hygiene behavioural change.

**The MMIS has proven to be highly effective, leading to a significant improvement of key hand hygiene indicators, a reduction of health care-associated infections and antimicrobial resistance, and substantially helping to stop outbreaks.**

For these reasons, it is actively encouraged to support the two specific core components' recommendations to be addressed at this critical and opportune time in relation to hand hygiene and improved WASH in HCFs.

The WHO MMIS includes five critical elements to be implemented at the facility level in an integrated manner (Box 3).

#### Box 3

Element of the MMIS	Description
<b>System change (build it)</b>	Achievement of continuous availability of the necessary infrastructure, materials and equipment to effectively perform hand hygiene at the point of care. This includes the reliable and uninterrupted provision of alcohol-based hand rub at the point of care, continuous supplies of safe, clean water, soap, single-use towels, and an adequate number of functioning sinks.
<b>Education (teach it)</b>	Clinical staff, patients and visitors should undergo tailored education and practical training about the importance of hand hygiene to better understand when and how it should be performed. Education should also address all other health workers, including hospital administrators, cleaning personnel and community health workers.
<b>Monitoring and feedback of hand hygiene indicators (check it)</b>	Regular monitoring and evaluation (ideally using standardized tools) of hand hygiene infrastructures (location of facilities at the point of care, consumption of soap and alcohol-based hand rubs), including knowledge of and compliance with best practices. Providing regular feedback to health workers and senior management using local data

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