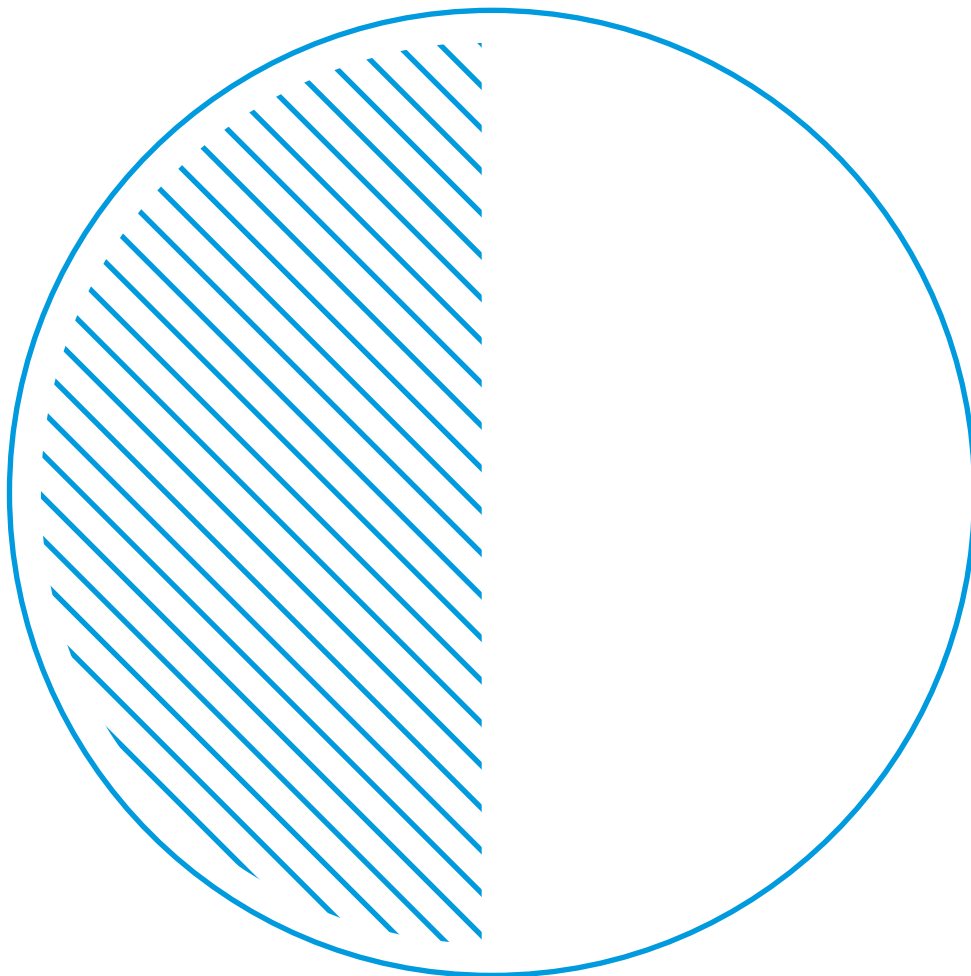

Environmental cleaning and infection prevention and control in health care facilities in low- and middle-income countries

Trainer's guide



Environmental cleaning and infection prevention and control in health care facilities in low- and middle-income countries

Trainer's guide

Environmental cleaning and infection prevention and control in health care facilities in low- and middle-income countries: trainer's guide

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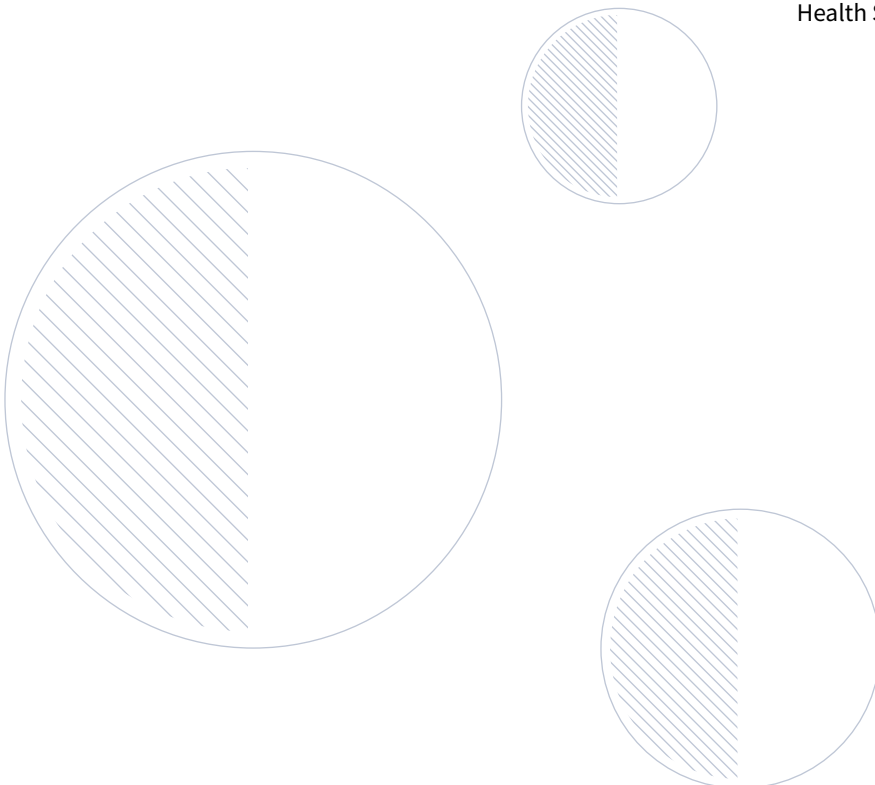
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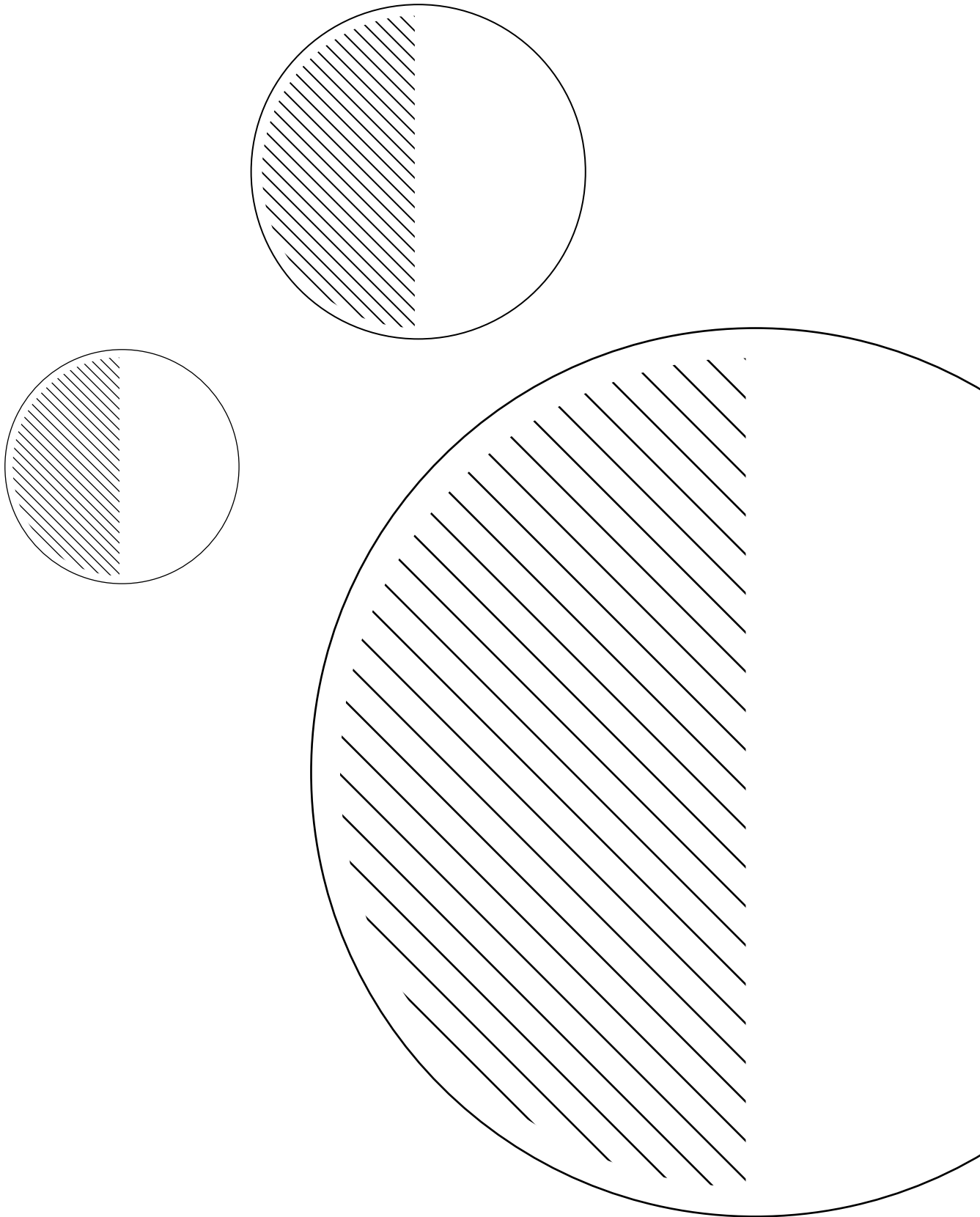
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Abbreviations and acronyms

AMR	antimicrobial resistance
CDC	United States Centers for Disease Control and Prevention
HAI	health care-associated infection
ICAN	Infection Control Africa Network
IPC	infection prevention and control
IPCAF	Infection Prevention and Control Assessment Framework
LMIC	low- and middle-income countries
PPE	personal protective equipment
UNICEF	United Nations Children’s Fund
WASH	water, sanitation and hygiene
WASH FIT	Water and Sanitation for Health Facility Improvement Tool
WHO	World Health Organization

1. Introduction



Introduction

People who perform environmental cleaning in health care facilities are key personnel responsible for supporting safe environmental health conditions for patients, visitors and staff.

Those who clean help to prevent health care-associated infections (HAIs), and support efforts to reduce antimicrobial resistance (AMR) and maternal and newborn sepsis. Strengthening the training of this important group can contribute to resolving many of today's public health challenges. This is currently a pressing issue to be addressed as the cleaning of both surfaces and hands is vital to control the transmission of a number of HAIs.

Those who clean are a crucial link in the delivery of safe, high quality health care. They should be valued, supported and trained to perform their roles effectively.

Sustained investment is therefore important in order to train those who clean, to improve their knowledge and practices and to ensure active involvement in developing improvement strategies with support from infection prevention and control (IPC) teams alongside those who clean and supervise cleaning. This is important, given that those who clean often have inadequate training on IPC, including the use of personal protective equipment (PPE) and optimal hand hygiene practices. In addition, they may lack sufficient PPE and cleaning supplies and experience stigma from patients and staff.

The World Health Organization (WHO) developed this two-part training package **Environmental cleaning and infection prevention and control in health care facilities in low- and middle- income countries** using cleaning protocols developed for the maternity unit as an exemplar, for three reasons:

- First, infections associated with unclean births account for 26% of neonatal deaths, 11% of maternal mortality; together, these account for more than 1 million deaths each year. Of note, in some African countries, up to 20% of women develop a wound infection after a caesarean section (1).
- Second, maternity units have several features found in other wards, such as high turnover, surgical and non-surgical cases, both emergency and routine care, and multiple touch points.
- Third, the training package builds upon an existing training resource for those who clean, with a specific focus on maternity wards (2).

This combination of factors makes the maternity unit an excellent choice of an exemplar to illustrate how to train those who clean as detailed in this training package. It is expected that this material be adapted for use by those responsible for training those who clean in other clinical areas of the health facility.

WHO's Environmental cleaning and infection prevention and control in health care facilities in low- and middle- income countries is a two-part training package that targets those who clean health care facilities. It is based on the Training in environmental hygiene and cleaning in healthcare (TEACH CLEAN) package (2) and includes the perspectives of AMR, IPC, water, sanitation and hygiene (WASH), and quality of care.

While the language used in this training package applies to maternity units, much of the content applies to all clinical areas and can be readily used with small adaptations to language (for example, 'beds' rather than 'delivery beds').

1.1 Terminology

There is no universal term to describe those who clean in the health care environment.

The package uses the term ‘those who clean’ as an alternative to common terms, such as cleaners or cleaning staff, domestic services workers, environmental services staff, domestic assistants, orderlies, housekeepers, and ward boys.

1.2 Purpose

The purpose of the training described in this package is to improve the competence of those who clean through a practical, educational approach for adult learners in low- and middle-income countries (LMIC). The training package’s resources are intended to lead to long-term improvement in competence through supporting the target audience to put cleaning approaches into practice, in the context of supportive supervision and a multimodal improvement strategy.

At the Seventy-Second World Health Assembly in May 2019, the resolution WHA72 on WASH in health care facilities described the need to invest in a sufficient and well-trained health workforce, including cleaners (3). The WHO Core components of IPC programmes at the national and acute health care facility level also highlight the need for a trained workforce (4). These aspects will help in achieving the WHO Global Action Plan to combat AMR (5).

1.3 Aim and intended use

The training package aims to address critical gaps in the training and empowerment of those who clean in LMIC and to address gaps in the necessary support to achieve this.

Although the training package was developed to improve the competence of those who clean, its contents and the associated training materials are relevant to other health workers, including nurses and midwives who may periodically undertake cleaning as part of wider duties. The training package considers the many factors that influence the successful implementation of training programmes.

1.4 Target audience

The package is intended for use in health care facilities by individuals or groups who develop, deliver or are concerned with training programmes intended to improve environmental cleaning. Thus, the target audience is those with a background in IPC and/or environmental hygiene. This may include:

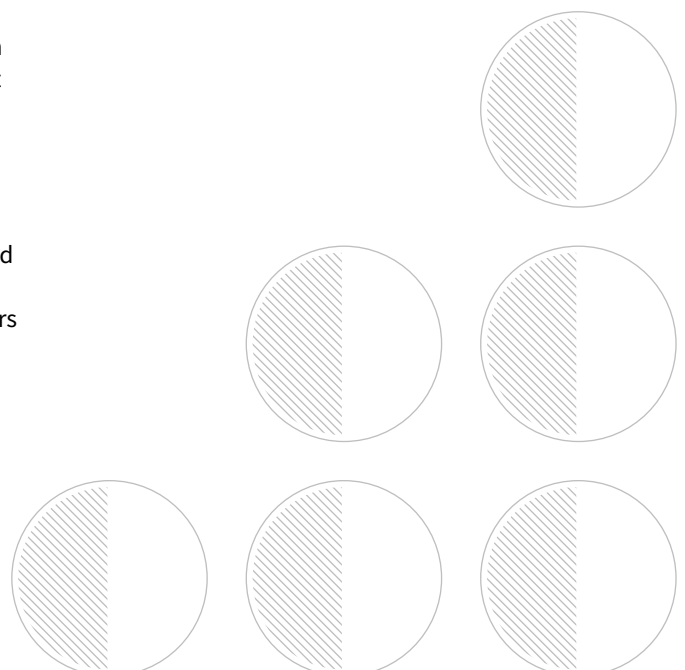
- ministries of health.
- nongovernmental organizations or international organizations supporting IPC in health care facilities.
- academic institutions.
- experts working in IPC and environmental cleaning/ WASH.
- IPC focal points and onsite supervisors of those who clean.
- individuals who have a role in improving the quality of health care services.

The section on preparing to deliver the package (section 2.1.1) recommends establishing a steering group to bring together key stakeholders to oversee all stages of the training, including from adaptation to implementation. An IPC committee, if in place, can fulfil this role.

1.5 Expected recipients of the training

There is a significant difference between the intended users of the package and the recipients of the training. The users, as described in section 1.4 are those who train – i.e. those who develop or deliver training programmes intended to improve environmental cleaning of health care facilities.

The expected recipients are those who clean and their supervisors within a health care facility.



1.6 Structure of the training package

Environmental cleaning and infection prevention and control in health care facilities in low- and middle-income countries, hereafter referred to as “the package” comprises two interconnected parts: the trainer’s guide (this document) and *Modules and resources* (Fig. 1.1).

- The trainer’s guide (this document) takes the user through how to prepare, deliver and sustain an effective training for those who clean.
- In *Modules and resources*, learners can find training materials (instructions, definitions, photographs, posters and other illustrated cleaning guides including specific illustrations that support competence statements intended to improve practices). The written instructions can be printed or converted to slides as appropriate and other necessary materials gathered and prepared in advance.
 - The materials can be used to train those who clean how to perform cleaning activities, to support them to visualise the correct steps to take and to check environmental cleanliness standards while supporting the competences of those who clean.
 - The IPC and environmental cleaning questionnaire in *Modules and resources* can be completed by participants before training to establish the extent of existing knowledge; after training, the questionnaire can be reapplied and used as a measure of learning.
 - From the outset, literacy skill levels should be considered by trainers while gathering information from those who clean to complete the questionnaire and it may have to be delivered in an interview format.

1.7 Adaptation

The principles contained in the package are universally applicable. However, the content may need to be adapted to ensure that the approaches are relevant to the local context and culture. Thus, those who train in regions, countries and at local level have the flexibility to inform their own approach, with the package providing all the necessary information for building capacity among those who clean.

1.8 Topics outside the scope of the package

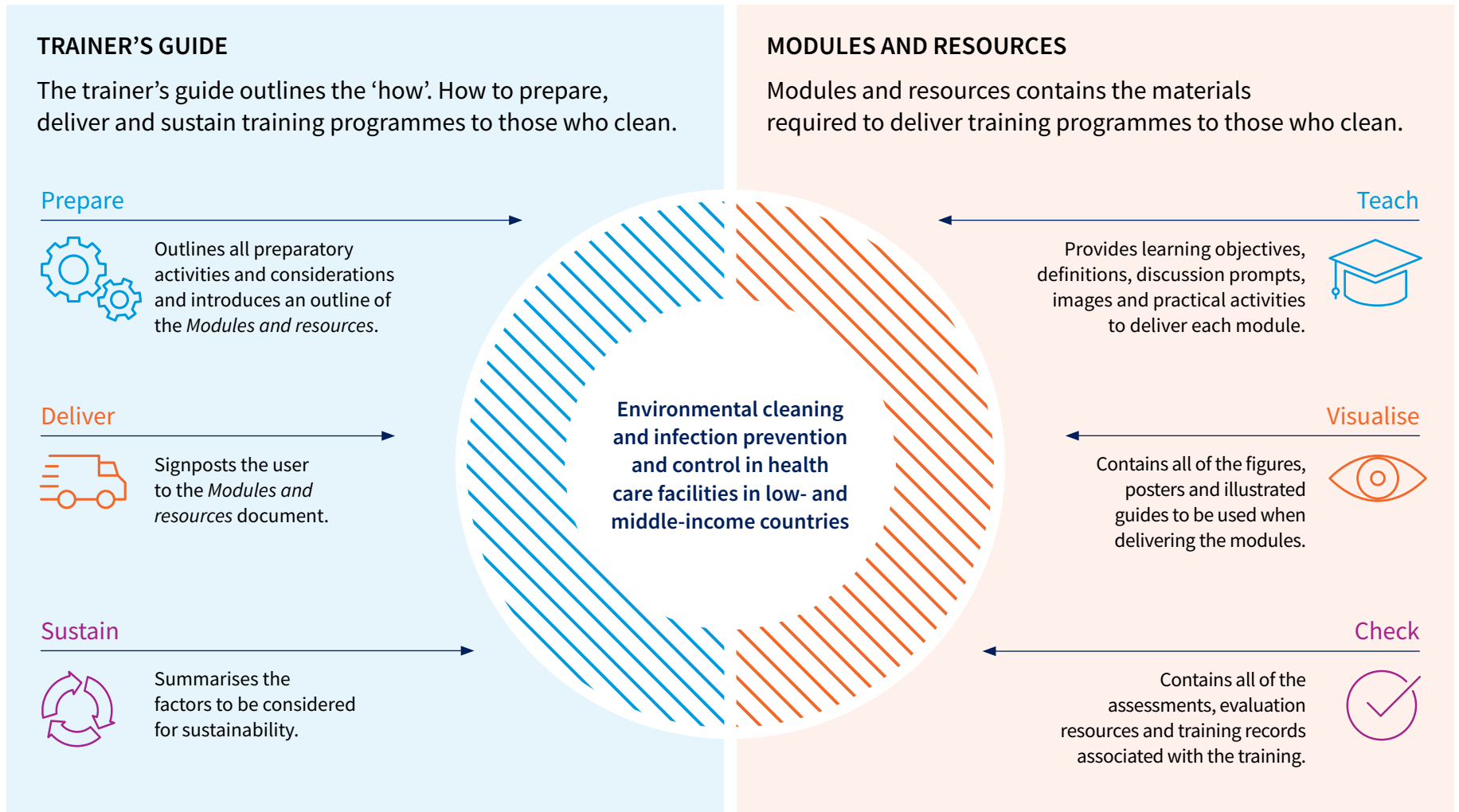
Basic microbiology and IPC core competencies are not included in this training package as these issues are not intended to be the responsibility of those who clean health care facilities. WHO IPC & WASH online training modules are available and a summary of these modules is presented in *Annex 1* (for information); the recipients of these modules are not those who clean health care facilities.

The package also does not include training on workforce issues, although it may support a case for increasing the numbers of those who clean, where necessary. Similarly, the package does not cover the infrastructure required to support optimal WASH as this aspect should be addressed within other programmes of work.

Routine resource needs and budgets are not included as a specific module, but it is crucial that those who clean have access to adequate supplies of cleaning materials and equipment as detailed in the package.

Finally, the package assumes that those who clean (whether in-house or contracted) have already been identified and are in place within health care facilities.

Fig. 1.1 Structure of the training package



1.9 Related guidance and standards

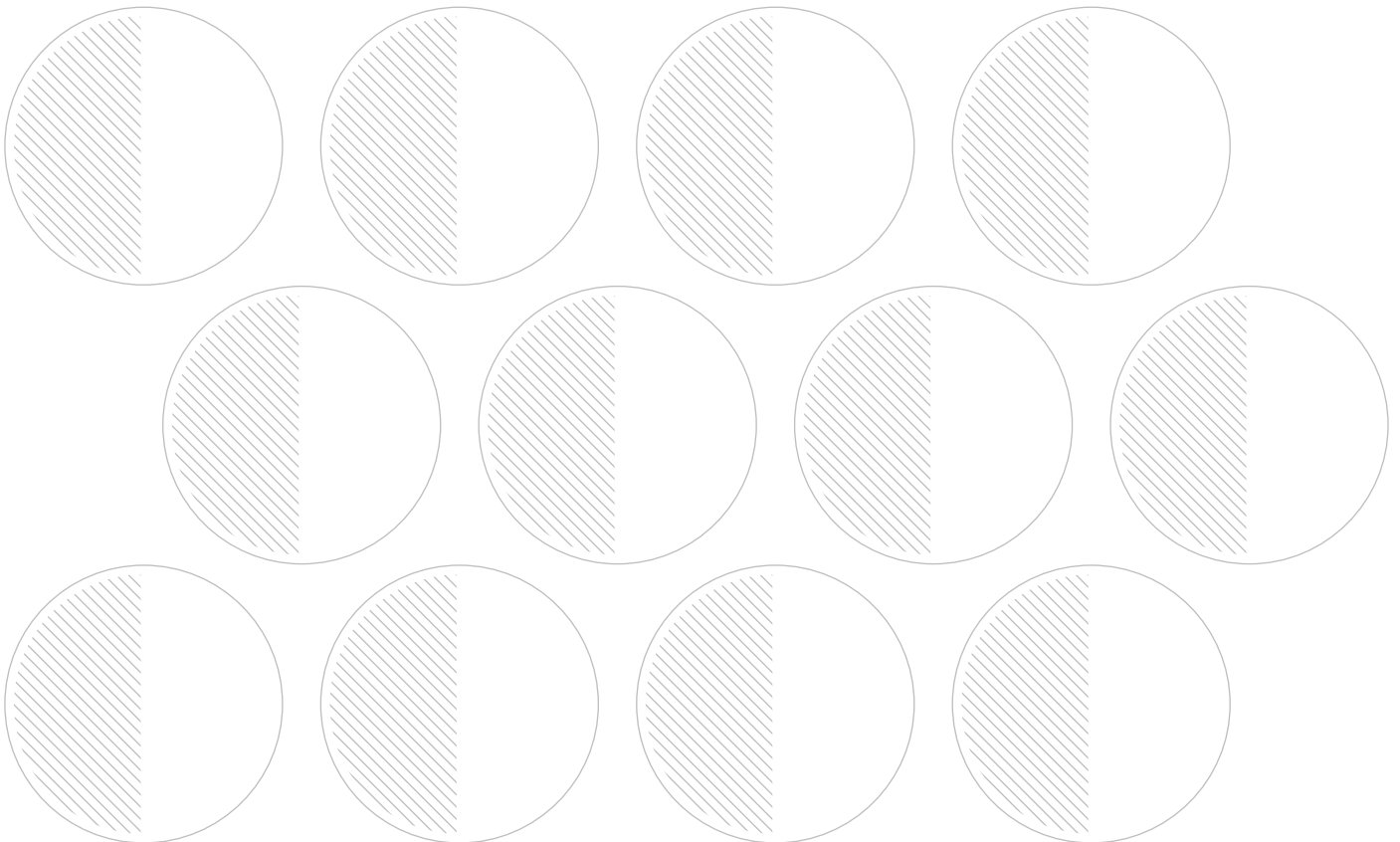
Training and empowerment of those who clean is one part of implementation of IPC and AMR recommendations, although this is not often explicitly stated in guidance documents.

Implementation of relevant guidance documents and standards also relies on those who clean being recognized as an integral part of the health workforce, and their responsibilities being taken seriously within a supportive culture.

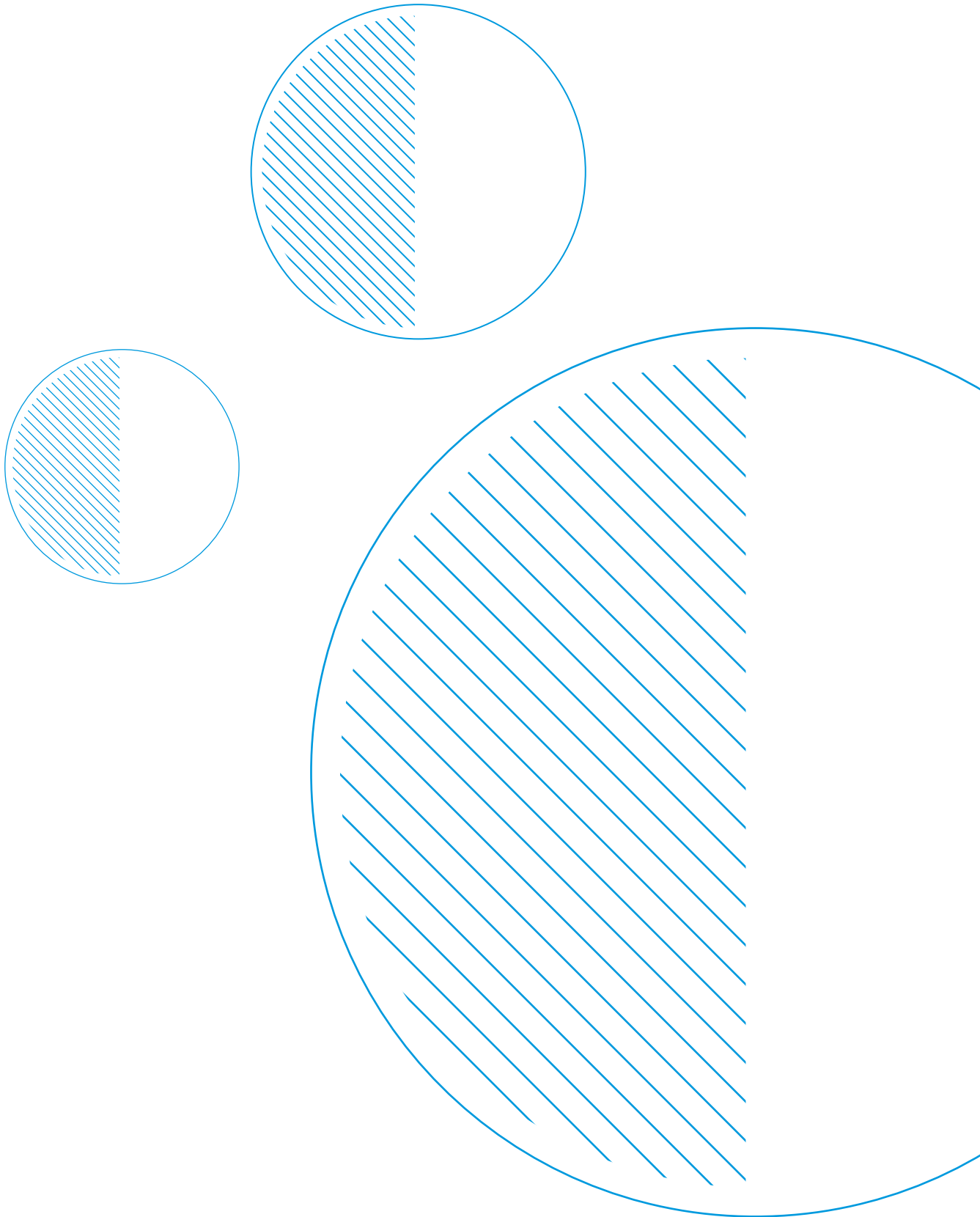
Annex 2 summarizes the most up-to-date guidance and best practice documents relevant to environmental cleaning including the training of those who clean.

The publication *Best practices for environmental cleaning in healthcare facilities: in resource-limited setting (6)*, issued by the United States Centers for Disease Control and Prevention and the Infection Control Africa Network (CDC/ICAN), is a reference document for environmental cleaning.

Successful implementation of cleaning guidance depends on those who clean knowing and doing the right things, and being supervised and valued.



2. Prepare



Prepare

2.1 Preparing the delivery of the training – general considerations

Preparation will improve the chance of success and sustainability in implementing the training package. A health care facility should be fully prepared to deliver the training. This section focuses on seven key considerations that will help to ensure sustainability from the start.

Box 2.1 Key considerations when starting out

1. Consider people, resources and budgets for training (see [section 2.1.1](#)).
2. Review relevant cleaning guidance (see [section 2.1.2](#)).
3. Establish baseline information (see [section 2.1.3](#)).
4. Understand the training approach (see [section 2.1.4](#)).
5. Consider adaptation to the local context (see [section 2.1.5](#)).
6. Consider potential barriers and opportunities (see [section 2.1.6](#)).
7. Consider a multimodal approach (see [section 2.1.7](#)).

2.1.1 People, resources and budgets

This section describes those involved in the process (that is, those who clean, those who deliver the training, and those in the steering group or IPC committee, if in place, who oversee the process), resources (that is, infrastructure and supplies) and budget.

People

Those who clean

As highlighted in [section 1.8](#), the training package assumes that those who clean (whether in-house or contracted) are already identified and in place within health care facilities.

If contracted staff are in place and it is stated that they have already received training, check training against the content of this package to ensure consistent standards for the health care facility.

Information on externally contracted programmes and the development of a service level agreement can be found elsewhere (6). Of note, even for those already trained, this package can inform regular updates on knowledge and competency.

Those who deliver the training

Those who use this package to prepare and deliver the training should have an appropriate level of knowledge of how to train as well as technical knowledge (for example, on transmission of microorganisms, IPC, environmental hygiene practices, and standards and regulations, as included in the guidance and best practice documents listed in [Annex 2](#)).

Knowledge and application of IPC and related issues is important for trainers. Having the relevant technical knowledge allows those delivering participatory training sessions to simplify and explain complex concepts in such a way that they can be fully understood by the intended recipients (that is, those who clean).

If trainers are competent in training, but do not have the relevant background in IPC and environmental cleaning, training should be co-facilitated by an individual with relevant experience of both training methods and relevant technical areas. The facility leadership team may need to build capacity to deliver training or use external providers who have the relevant expertise (for example, from an academic institution, another country, or a professional society).

If the facility has a designated cleaning programme manager responsible for managing and overseeing environmental cleaning activities on a daily basis, this person is best suited to lead the training programme. If this position does not exist, then the selected person should have the following profile:

- Knowledge of facility IPC activities: typically, a staff person who is already a member of the facility IPC or hygiene committee should be selected for this role. However, this role should not be allocated to the existing IPC lead or focal point who already has many activities for which they are responsible.
- Be an experienced staff member: ideally, with leadership and management experience. During the implementation process, they will need to communicate regularly with the IPC committee, facility management, and department or unit supervisors (for example, nurse or midwife in charge).
- Demonstrate a good understanding of the facility in terms of organization/management/ services provided.

Leadership: steering groups & IPC committees

The minimum requirements for health care facility IPC programmes (7) call for the establishment of an IPC committee composed of dedicated, trained personnel that should be in place in each acute health care facility for the purpose of preventing HAI and combating AMR through good IPC practices (including strong cleaning practices).

Where in place, the IPC committee oversees the execution of the processes within the clinical unit of the facility to ensure a successful, sustainable outcome. The IPC committee should bring together, involve, and influence the main stakeholders as a key implementation priority. An example of the composition of this committee is shown in [Box 2.2](#).

Where an IPC committee is not yet established, a steering group is recommended. This may be at the national, regional and district level or facility level.

The Steering Group also brings together key stakeholders including leaders and advocates.

Written and verbal commitment from leaders is important. Involving, preparing and influencing key stakeholders is key to success.

Box 2.2 Example of the composition of an IPC committee

- Senior facility leadership (e.g. administrative director, chief executive officer, medical director).
- Senior clinical staff (e.g. physician, nurse, midwife, pharmacist).
- Designated cleaning programme manager or focal person accountable for the delivery of the training programme.
- Nursing and midwifery leaders.
- Facility management representative (e.g. biosafety, waste, and those tasked with addressing water, sanitation, and hygiene).
- Individuals responsible for routine cleaning supplies and procurement.

Resources and budgets for training

An annual budget is essential to an effective environmental cleaning programme (7). The major elements of such a budget include the costs of training and the production and printing of checklists, logs, and other materials. The training package comprises eight separate training modules as well as important annexes including a train the trainers module, and the materials required to deliver these, which are described in [section 2.1.4](#) and the [Modules and resources](#) document.

Human resource costs are not covered in the generic training delivery budget, but are a prerequisite for delivery of the training programme as described above. The process of adapting this programme to the local context may also require a budget.

Actions for people, resources and budgets

- Designate a cleaning programme manager or focal person to be accountable for the delivery of the training programme.
- Check that trainers have the appropriate level of knowledge of IPC and related issues.
- Collaborate with the IPC committee, if in place, to ensure links with hospital leadership to support the training.
- Secure a budget for printing the modules' contents and sourcing other necessary materials.

2.1.2 Relevant cleaning guidance

[Annex 2](#) summarizes international guidance relevant to the cleaning of health care facilities.

Actions for relevant cleaning guidance

- Ensure that the designated cleaning programme manager or focal person is familiar with the guidance listed in [Annex 2](#) and any resources required for implementation of the guidance.
- Seek out national cleaning guidance for health care facilities, if available.
- Download and become familiar with the CDC/ICAN best practices document (6).

Actions for baseline information

- Gather relevant information and data on the facility baseline situation.
- Use existing information.
- If no baseline information is available, use the Basic Needs Assessment Tool in [Modules and resources](#).
- If necessary, use one of the other valid IPC and/or WASH tools to help in monitoring overall improvement (see [Annex 3](#)).
- If using IPCAF, review the contents of the interim practical manual supporting the implementation of the IPC core components (10).

2.1.3 Baseline information

In deciding which training modules should be delivered to best suit the facility context, the steering group or IPC committee should consider the current situation in the facility. During this preparatory phase, as much relevant information/data as possible should be gathered (under the leadership of the designated cleaning programme manager or focal point) to provide a useful baseline or situational analysis. This will help to identify gaps and shape a successful training programme.

When gathering baseline data, it is useful to engage with those being trained within the health care facility and their supervisors as this will help in obtaining the relevant permissions, such as dedicated time for training, funding for training materials, and revised supervision standards.

A basic needs assessment tool (found in the separate [Modules and resources](#) document) can be used before the training to identify baseline gaps in existing training, resource availability and staff, to review the cleaning responsibilities of the facility's unit. Furthermore, it can be used to determine the existence of current policies and protocols on cleaning and cleanliness, and compare current versus best practice outlined within this training package. The information gathered from the basic needs assessment tool can be used by the steering group or IPC committee to adapt the training package for different medical unit settings and as a baseline for later evaluation or monitoring.

Availability of baseline information on broader aspects of IPC can also provide useful insights. If such information is not available, there are several other validated tools that can be used to elicit such information. These include the WHO Infection Prevention and Control Assessment Framework (IPCAF) (8) and the WHO/UNICEF Water and Sanitation for Health Facility Improvement Tool (WASH FIT) (9) (see [Annex 3](#)).

2.1.4 Training approach rationale

The proposed training approach reflects WHO recommendations and is intended to be practical and participatory (11).

The structure: eight modules

Eight essential topics are included in the [Modules and resources](#) document ([Box 2.3](#)). For ease of delivery, each module is presented in the same format.

Each module includes the essential information and resources required to deliver training on a specific topic ([Fig. 2.1](#)). An additional supplementary module addresses Supportive supervision (Module 8).

Box 2.3 The modules

Module 1 Introduction to IPC

Module 2 Respiratory and personal hygiene

Module 3 Hand hygiene

Module 4 Personal Protective Equipment (PPE)

Module 5 Cleaning of the environment

Module 6 Waste management

Module 7 Linen management

Module 8 Supportive supervision (supplementary)

Definitions

The modules include definitions of terms (for example, HAI and standard precautions).

The content and definitions in the modules have been developed to suit the participatory approach and the recipients of the training (that is, those who clean).

Box 2.4 presents a brief summary of the focus and objectives of each of the modules.

Focus and objectives of the modules

Box 2.4 Summary outline of each module

Module 1 Introduction to IPC

This foundation module is intended to highlight the environmental transmission pathway and the roles and responsibilities that trainees have to intervene in that pathway. It explains HAIs and their impact and describes standard infection control precautions (what they are, their purpose, and who they concern).

Module 2 Respiratory and personal hygiene

This module highlights the importance of good personal hygiene and the actions required for proper respiratory hygiene and cough etiquette. It addresses the importance of dressing appropriately and the need for a professional appearance to give trainees an understanding that their dress facilitates good practice and minimizes risks to themselves and to patients.

Module 3 Hand hygiene

This module describes the importance of hand hygiene and its role in breaking the environmental transmission pathway. It covers the 'when' and 'how' of hand hygiene and highlights common practices in poor hand hygiene.

Module 4 Personal Protective Equipment (PPE)

This module highlights the need for PPE, and explains how to select and use relevant PPE, including how to safely put on and take off PPE.

Module 5 Cleaning of the environment

This module explains the importance of housekeeping and cleaning of the environment. It focuses on general principles of environmental cleaning, including procedures for cleaning common areas such as sinks, floors and beds.

Module 6 Waste management

This module explains what health care waste is and describes the distinct types of waste. The aim is to help trainees to understand the hazards associated with inappropriate handling of waste. This module also explains the methods used to handle contaminated and non-contaminated waste.

Module 7 Linen management

This module explains why careful handling of both clean and used linen is important and describes what PPE to wear when dealing with clean and used linen. It also addresses storage and transportation, including how used or contaminated linen should be collected, handled and transported.

Module 8 Supportive supervision (supplementary)

This module is intended to highlight the importance of monitoring and supervision and the differences between supportive supervision and more punitive forms. It describes how to apply competency-based assessments as part of supportive supervision and ongoing monitoring.

Module contents and necessary materials

Fig. 2.2 summarizes the contents and materials that are needed in each module to deliver training sessions on multiple topics to those who clean.

Modules used will depend on the baseline information gathered (section 2.1.3).

Once it is clear which modules are relevant:

- The materials for these modules should be printed for use by the trainers and the resources secured for demonstrations and practical exercises (Fig. 2.3).
- Photographs, posters and illustrated cleaning guides should ideally be A3 in size. They can also be presented using slides if the relevant technology is available and if this suits the setting where the participatory training is being delivered.
- Printed materials can be laminated for durability. A non-permanent marker pen can be used to write on or mark laminated documents to highlight key messages during training, as appropriate.
- Training items to be included in the modules can be obtained from various sources, such as the health care facilities undergoing training (depending on resource availability), hardware stores and local markets.

Adaptation is covered below in section 2.1.5. Here, we highlight that the photographs and posters supplied within the package can be replaced or supplemented for local adaptation. For example, photographs sourced from databases such as Photoshare or Flickr (ensuring

that necessary copyright permissions are in place before such materials are used) could be used to help adapt the contents. Of note, the use of locally taken photographs that emphasize good and suboptimal practices helps to make the content more applicable and relatable to the context and audience. Other training materials (for example, videos of cleaning procedures and demonstrations of good and bad practice) can also be produced locally and can be effective as a training resource.

In addition to the module materials, *Modules and resources* contains illustrated cleaning guides that focus on, for example, how to fold a cleaning cloth, how to prepare chlorine-based disinfectant solution, and how to clean a handwash basin, a squat toilet, a standard toilet and a delivery bed, or a blood spillage.

Actions for the training approach

- Become familiar with the modules described in the accompanying publication *Modules and resources*.
- Decide which module(s) will be used for training, based on the facility baseline situation.
- Print the contents of the relevant modules.
- Gather all the materials needed for the demonstrations.
- Place all the materials in one box or in separate boxes.

Fig. 2.1 Format of the modules

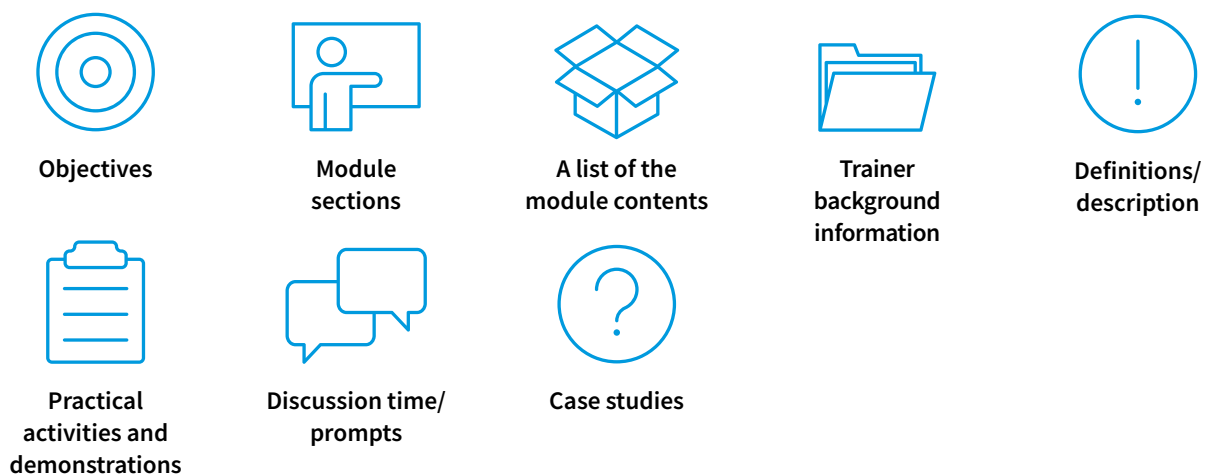


Fig. 2.2 Summary of the modules

At-a-glance guide to module contents (All materials can be found in the *Modules and resources* document complementing this training guide).

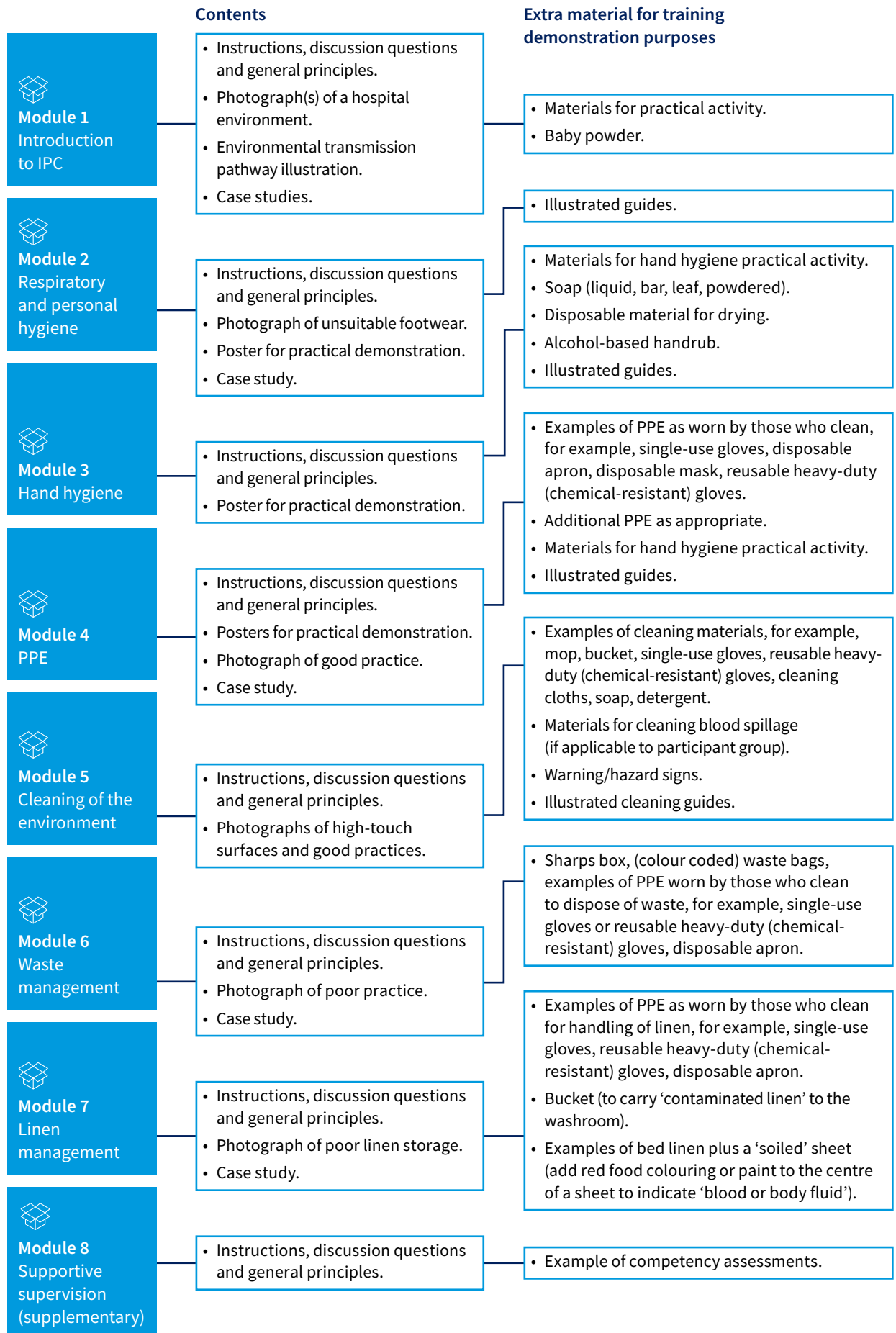
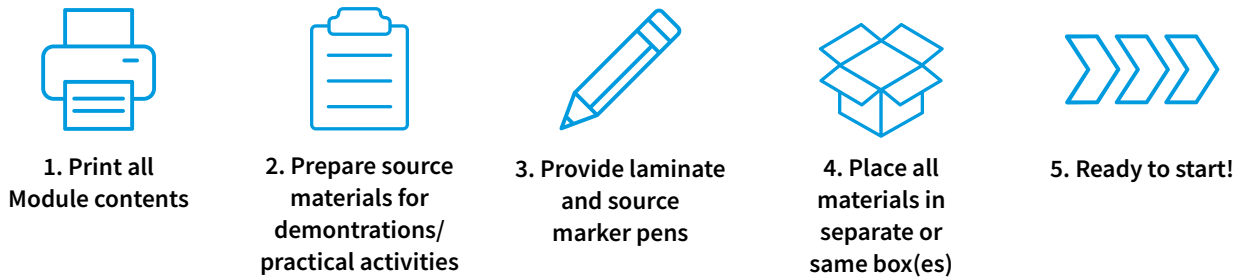


Fig. 2.3 Actions to be undertaken before training starts



2.1.5 Adaptation to the local context

Adaptation is a prerequisite for successful training. The information and materials within *Modules and resources* are designed to be adapted to the local context. All information is supplied as Microsoft Word files to facilitate editing and local adaptation.

Three of the modules (Introduction to IPC, module 1, hand hygiene, module 3 and PPE, module 4) are generic modules that should not require significant adaptation. The remaining modules should be reviewed, checked and adapted to reflect local or national policies or most recent best practice recommendations and/or guidance, if available.

Once these local or national norms are understood, local adaptation requires the involvement of one or more individuals with the following specific skills to adapt the training package to the local context:

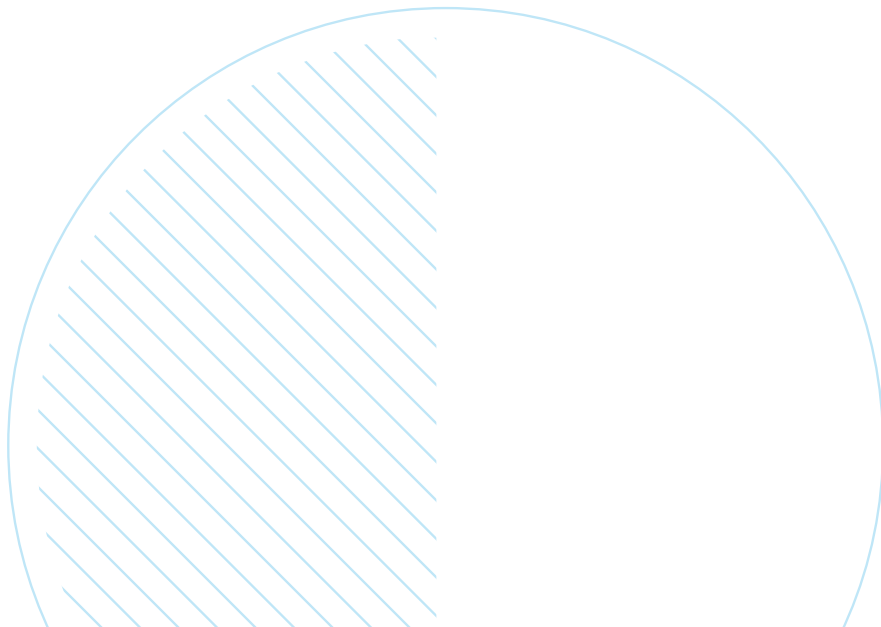
- working knowledge of the health care facility environment and resource availability (for example, a practising clinician, midwife, hospital administrator or nurse).
- knowledge of (or a background in) IPC and environmental hygiene to inform the adaptation.
- an understanding of (or a background in) participatory training.
- comprehensive knowledge of local language(s) and/or dialect(s) spoken by those who clean.

As discussed earlier, people who deliver training should also be involved in the following adaptation tasks, together with the steering group or IPC committee:

- review of training materials (including illustrations, photographs and case studies) to assess whether the level of technical detail should be adjusted for those being trained, based on their literacy skills, knowledge and expertise.
- identification or creation of local photographs or images (including videos), if applicable.
- decisions on the need to use the illustrated guides and other training materials as is, or if they should be translated into the local language(s).
- incorporation of changes where appropriate.
- review and sign-off of final revisions.

Actions for adaptation to the local context

- Clarify roles and responsibilities.
- Use the baseline information to inform adaptation.
- Review materials for suitability and source more appropriate content where necessary.
- Secure sign-off for all adaptations in line with best practice guidance.



2.1.6 Potential barriers and opportunities

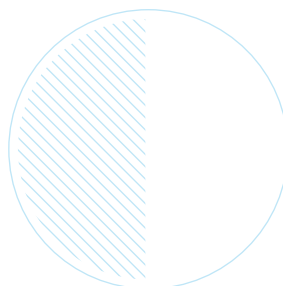
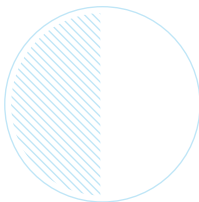
It is helpful to consider potential barriers to the training programme. Some commonly encountered barriers relate to local culture and context and the availability of technical expertise and leadership support to drive the training forward. Actions taken to address local adaptation ([section 2.1.5](#)) will help to address cultural and contextual barriers, including those related to literacy. Incorporating the training plan as part of the IPC committee's plans, where in place, can help to achieve leadership support and delivery.

Obtaining equipment and supplies that are fit for purpose may also present a barrier. Such issues will be identified through the collection of baseline information and these findings should be presented to the steering group or IPC committee.

Despite the barriers, preparing to start a new training programme presents opportunities. For example, it may show how training could be strengthened more generally and how the training can integrate and align with existing campaigns, such as WHO's 'World Hand Hygiene Day' every 5 May and other local improvement initiatives (for example, quality improvement), and help to address other barriers.

Actions for potential barriers and opportunities

- Consider potential barriers and mitigations, drawing on previous experiences of change being introduced; the Basic Needs Assessment Tool, in [Modules and resources](#), is often useful for this exercise.
- Start to think about whether the training can be 'bolted on' to or incorporated within existing mandatory training (for example, on health and safety, patient safety or IPC), where available.



2.1.7 Multimodal approach

Training is critical for equipping people with the knowledge and skills required to do their job well.

However, it is just one part of influencing performance and outcomes – on its own, training is not sufficient to result in a clean, safe health care facility.

Many varied factors within the work environment influence performance and need to be considered when working towards overall improvement, particularly to sustain any changes made following training. These factors include:

- an enabling environment, that is, the infrastructure, supplies and other 'hardware' that needs to be in place to support and enable cleaning.
- mechanisms to monitor progress and provide feedback.
- the existence and application of reminders and communication aids.
- organizational support, including the current safety climate.
- leaders who know and value a safe clean environment.
- an understanding that environmental cleaning is part of overall quality improvement.

Addressing these factors requires a multimodal approach that goes beyond training. Such an approach supports sustainability. [Annex 4](#) provides some prompt questions about the multimodal approach and examples of factors to be considered.

Actions for the multimodal approach

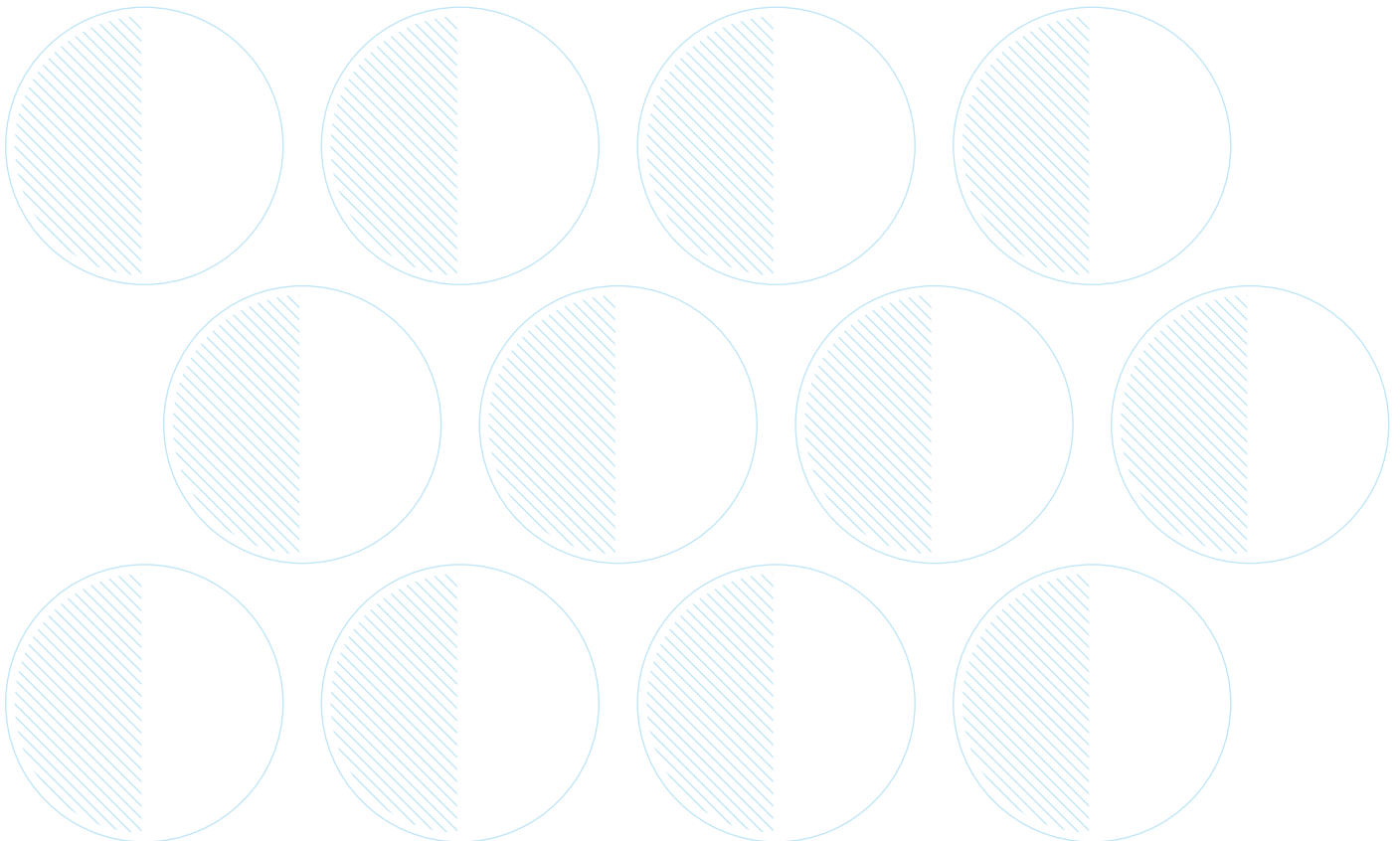
- Consider actions in the following areas from [Annex 4](#).
 - Infrastructure, supplies and hardware.
 - Training and education.
 - Monitoring, assessment and feedback.
 - Reminders and communication aids.
 - Organizational support and leadership.

2.1.8 Ready to continue?

Before moving on to [section 2.2](#), the person accountable for implementing this training should review the action checks below to determine whether each point has been addressed.

Action checks 1. Initial key considerations

#	Action Checks	Yes	No
1	We have assessed the people, resources and budgets needed to deliver the training	✓	X
2	We have reviewed the available, relevant guidance presented in Annex 2	✓	X
3	We have considered our current baseline using basic needs assessment and other available tools (WASH FIT, IPCAF)	✓	X
4	We have familiarized ourselves with the modules in Modules and resources	✓	X
5	We have collated all of the materials needed for each of the modules	✓	X
6	We have examined who needs to be involved, including leaders and stakeholders	✓	X
7	We have adapted materials, where necessary, based on baseline information	✓	X
8	We have considered how to integrate the training into existing courses and initiatives	✓	X
9	We have listed the barriers and discussed how to overcome them	✓	X
10	We have considered sustainable improvement	✓	X



2.2 Getting ready to deliver the training

The format used to deliver training will depend on who is delivering the training and for what purpose, and the target audience. The appropriate format for the health care facility will depend on the baseline information acquired, a review of the training, identification of priorities, and consideration of resources.

A training of trainers approach is the focus of this section. However, direct delivery by an experienced and informed external provider or the use of master trainers can be considered.

Training of trainers and direct delivery

‘Training of Trainers’ (ToT)

- This approach is facilitated by individuals with a background in training and IPC/environmental hygiene, for example an educational or training institute (e.g. the School of Nursing & Midwifery or the Ministry of Health).
- Trainers should be selected from selected health care facilities e.g. nurses, midwives, public health officers (ideally supervisors of those who clean) to attend a ToT workshop and subsequently deliver training to those who clean within their own facilities.

Direct delivery

- Direct delivery of training to those who clean can take a variety of formats, including for example delivery of training by master trainers (i.e. selected, trained individuals from academic settings or working at a regional level for the Ministry of Health who deliver training directly to those who clean within facilities).

Selected individual(s) within facilities may also deliver training.

Whichever approach is used, this section concerns the final preparations to be undertaken before delivering the training using *Modules and resources*. It outlines eight actions and considerations (summarized in [Box 2.5](#)) that will help to ensure sustainability from the start.

Box 2.5 Actions and considerations for the accountable cleaning programme manager or focal person before delivery of the training

1. Identify the trainers.
2. Develop workshop timetables.
3. Review the modular approach.
4. Understand the pros and cons of direct delivery of training from an external provider.
5. Understand the rationale and benefits of including other staff members in a participatory approach to training.
6. Deliver safe training when physical distancing is required.
7. Plan for the pre- and post-training knowledge questionnaires, including training evaluation.
8. Prepare certificates of completion.

2.2.1 Suitable trainers

To successfully complete this phase, all trainers should have an appropriate level of knowledge of the transmission of microorganisms, IPC, environmental hygiene practices, standards and regulations.

Ideally, the steering group or IPC committee will designate or assign an individual (such as an on-site supervisor) with relevant experience of both training and IPC to be accountable for the training.

2.2.2 Workshop timetables

The total time required to deliver all eight modules is approximately 12 hours, with an additional 2 hours required for module 8: Supportive supervision (supplementary).

It is up to those accountable for implementing the training, in consultation with the health care facilities from which the trainees will be drawn, to determine the best timetable for training. All efforts should be made to ensure that the training does not disrupt the facility function by taking those who clean away from their work for extended periods of time. Thus, a 30- to 60-minute session over 3–5 days (for example) may work better than a longer session once a week.

Examples of workshop timetables, modules and delivery formats for delivering a ToT course can be found in *Modules and resources*.

2.2.3 'Train-the-trainers' approach

The training of trainers approach offers several benefits in terms of delivery, uptake of training, and sustainability of changes made within facilities.

- In many settings, this will be the first formal training ever delivered to those who clean; lack of familiarity with the process may therefore affect the confidence of those who clean and their willingness to participate.
- Training those who clean as well as their supervisors may aid delivery, based on the already established working relationship.
- Individuals can be selected for the training workshop based on leadership roles within their respective facilities (for example, monitoring and supervision of those who clean) or familiarity with the local work context, thus allowing appropriate adaptation of training.
- By involving these individuals, longer term training can be repeated within the facility (for example, with a wider group of people, new staff, and as an update or reminder of best practices following the initial training).
- The health care facility can take ownership of the training programme going forward.

Application of training within facilities and associated barriers should be discussed with participants throughout the workshop. Mock training sessions may be undertaken to practise participatory methods and to familiarize trainers with the materials. The format used to deliver training will depend on the baseline, a review of the training, identification of priorities, and consideration of resources. *Modules and resources* includes a module that outlines the information needed to deliver a train-the-trainer course (Train-the-trainer course: how to train module).

2.2.4 Direct delivery of training by an external provider

Direct delivery of training to those who clean from an external provider has several advantages and disadvantages that need to be considered. The advantages of using an external provider include:

- short-term cost and time-savings by delivering training directly to those who clean (and their supervisors) without the additional step of train-the-trainer.

The disadvantages of using an external provider are:

- external trainers may not be familiar with the local context or the specific participants and their abilities, language(s) and/or dialect(s).
- potential benefits of longer term monitoring and supervision, ownership of the training process, and the ability to repeat in-house training may be lost.

2.2.5 Participatory approach to training

The training approach is rooted in participatory methods of training; the rationale for this approach is summarized in *Box 2.6*, Annex 1 in *Modules and resources*, and further explained elsewhere (11).

Box 2.6 Rationale for using the participatory approach

- Individuals learn in diverse ways with different learning styles.
- Some prefer the use of pictures, images, and diagrams to organize and communicate information; others prefer language and text.
- Different training styles can be more effective for one kind of learner than the other; some styles appeal to both.
- Training courses that recognize unique styles and use different methods of training, while considering the literary skill of participants, are much more successful in achieving objectives than courses using one method of training delivery.
- Participatory approaches are considered most effective in terms of knowledge acquisition, retention and subsequent performance.

The modules in *Modules and resources* include many examples and suggestions for active participation, mostly through practical exercises.

Participatory training normally comprises four elements: instruction; demonstration; questioning; and observation of performance. These elements should be repeated until a satisfactory performance is consistently achieved.

How training is delivered should take into consideration budget, time, resources, sustainability, and the desired scope and reach of training.

Training should be delivered in the local language, with training materials translated into that language, where appropriate.

2.2.6 Precautions when delivering the training

Although it is important to ensure engagement and successful outcomes from training sessions, ensuring the safety of participants is a major consideration.

This may mean:

- Considering the contents of the modules, how practical demonstrations can be delivered safely, for example at distance when necessary, and how any equipment used in the training can be cleaned afterwards.
- Considering the ventilation required, based on the number of people being trained in a physical space at any one time.
- Finding creative ways to demonstrate and observe practices during training (for example, using videos).
Online training is an option. However, it does not readily fulfil the goal of this training, which applies a practical approach that is suitable for those with low literacy. This package focuses on standard face-to-face training and thus should be adapted to consider precautions required if physical distancing is an issue when delivering training.

2.2.7 Pre- and post-training questionnaires

Modules and resources contain a sample questionnaire that can be used before and after training. Asking participants to complete the questionnaire before delivering the training will establish baseline knowledge. Facilitated participant completion of the questionnaire can then be used as a measure of learning.

When asking participants to complete the questionnaire, consider levels of literacy, for example, the questions may have to be delivered in an interview format.

Modules and resources also contain sample evaluation forms to be completed by trainers and recipients of the training including an assessment of cleaning competency.

2.2.8 Preparing certificates of completion

A sample certificate of completion to be presented to those who clean upon successful completion of the relevant training is provided in *Modules and resources*.

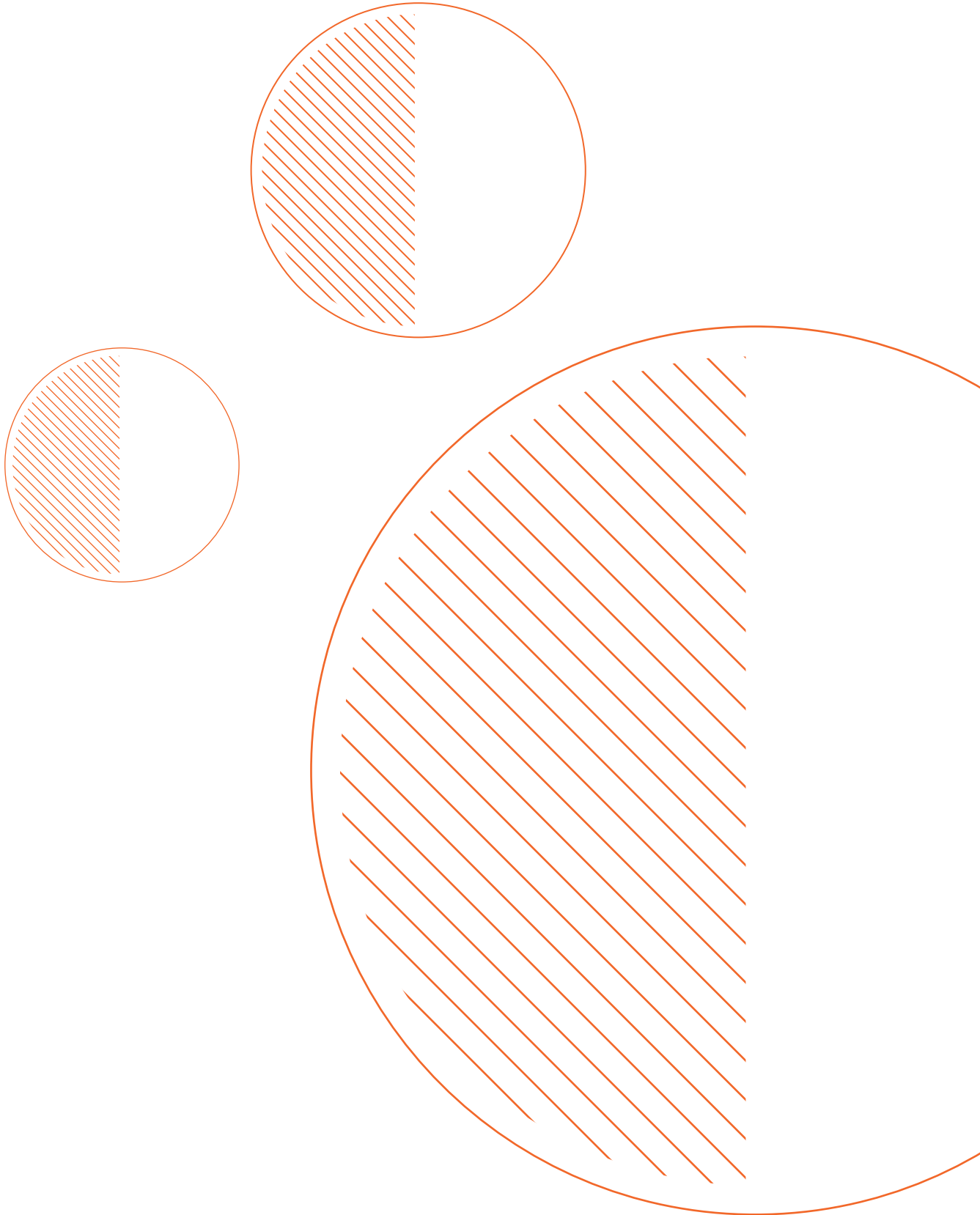
2.2.9 Ready to continue?

Before moving on to [section 3](#), the person designated for implementing this training should review the action checks below to determine whether each point has been addressed.

Action checks 2. The cleaning programme manager or focal person

#	Action Checks	Yes	No
1	We have reviewed the training-of-trainers and direct delivery training formats	✓	X
2	We have identified potential trainers	✓	X
3	We have reviewed and modified the workshop timetable	✓	X
4	We have reviewed the participatory training approach and its rationale	✓	X
5	We have considered safety precautions when delivering the training	✓	X
6	We have considered providing a pre-training knowledge questionnaire	✓	X
7	We have agreed on how we will evaluate the training	✓	X
8	We have prepared certificates of completion	✓	X

3. Deliver



Deliver

3.1 Modules and resources summary

This section summarises all of the information and materials in *Modules and resources* that are available to deliver the training.

The contents of *Modules and resources* are shown in Fig. 3.1 for reference.

Fig. 3.1 Summary of the contents of the document *Modules and resources*





MODULES AND RESOURCES CONTENTS		
TEACH 	<ul style="list-style-type: none">• Module 1: Introduction to IPC.• Module 2: Respiratory and personal hygiene.• Module 3: Hand hygiene.• Module 4: PPE.• Module 5: Cleaning of the environment.	<ul style="list-style-type: none">• Module 6: Waste management.• Module 7: Linen management.• Module 8: Supportive supervision (supplementary).
VISUALISE 	<ul style="list-style-type: none">• How to fold a cleaning cloth.• Hand rubbing.• How to wash your hands.• How to put on single use, disposable gloves.• How to remove single use, disposable gloves.• How to put on reusable heavy-duty (chemical-resistant) gloves.• How to remove reusable heavy-duty (chemical-resistant) gloves.• How to put on a disposable apron.• How to remove a disposable apron.• How to prepare a detergent solution.	<ul style="list-style-type: none">• How to prepare a chlorine-based disinfectant solution.• How to clean a blood spillage.• Damp mopping.• High-touch cleaning.• Cleaning paintwork, walls, and doors.• How to clean a handwash basin.• How to clean a standard (Western-style) toilet.• How to clean a squat toilet.• How to clean a shower.• How to clean a delivery bed.• How to clean a ward bed mattress.

Fig. 3.1 Summary of the contents of the document *Modules and resources* (continued)

MODULES AND RESOURCES CONTENTS		
CHECK 	<ul style="list-style-type: none"> • Training on baseline needs assessment tool. • IPC and environmental hygiene pre- and post-training questionnaire. 	<ul style="list-style-type: none"> • Competency assessments. • Training course evaluation. • Example of a training record.
ANNEXES 	<ul style="list-style-type: none"> • Annex 1: Training workshop – how to train. • Annex 2: Example of workshop timetables. 	<ul style="list-style-type: none"> • Annex 3: Competency assessment referral procedure. • Annex 4: Example of a certificate of completion for adaptation.

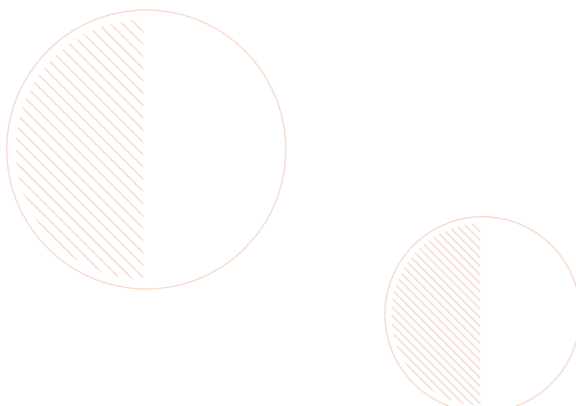
3.2 Ready to deliver the training?

Having completed the preparations in [section 2](#), the steering group or IPC committee is now ready to implement the training package and deliver the training.

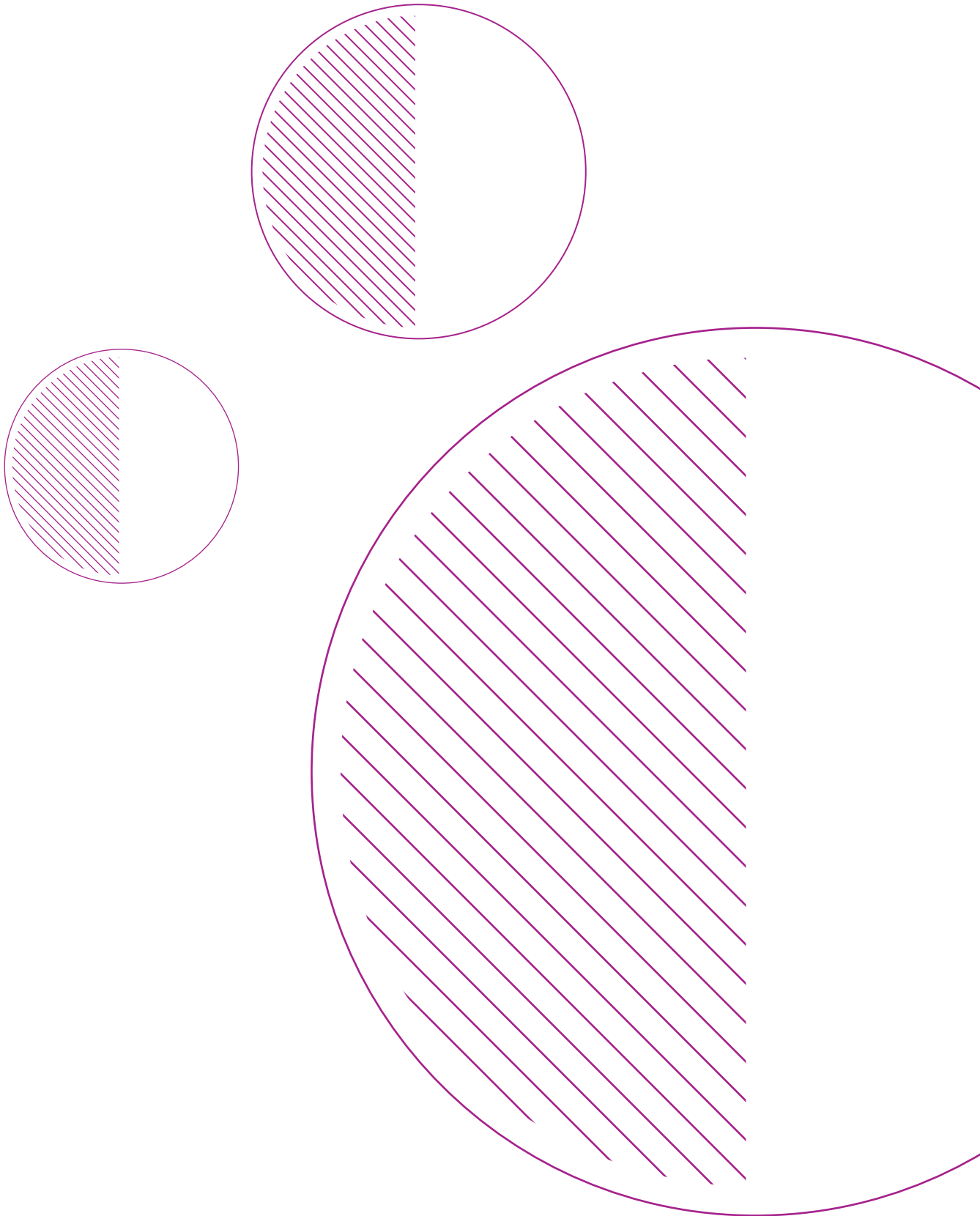
Before moving on to [section 4](#), the person designated for implementing this training should review the action checks below to determine whether each point has been addressed.

Action checks 3. Sustaining improved performance

#	Action Checks	Yes	No
1	We have addressed all of the action checks outlined in section 2	✓	X
2	We are familiar with all of the materials in Modules and resources	✓	X
3	We have agreed which of the materials in Modules and resources will be used for the training	✓	X
4	We are ready to deliver the training!	✓	X



4. Sustain



Sustain

4.1 Sustaining improved performance

Several factors can improve the performance of those who clean – supportive supervision, monitoring and feedback, non-monetary incentives, clear expectations, and resource availability. Together, these factors combine to establish an ‘enabling environment’.

- Central to an enabling environment is recognizing the importance of IPC and valuing the role of those who clean in establishing and maintaining IPC standards.
- An enabling environment encompasses not just training, but also ongoing professional support at all levels, including adequate infrastructure and resource availability (see [Annex 4](#) that outlines multimodal factors to support sustainability).
- It includes developing, implementing and enforcing supportive policies; strengthening institutions through effective coordination of personnel, resources and activities; and creating clear outlines of roles and responsibilities, with effective mechanisms of accountability throughout.
- The WHO Guidelines on the core components of IPC programmes (4) notes that a good programme needs to work throughout the system and involve organizational and cultural change.

An overview of some of these factors is provided below and addressed in more detail in the supportive supervision module in [Modules and resources](#).

4.1.1 Supportive supervision, monitoring and feedback

Supportive supervision focuses on supporting staff to improve their own performance. It takes a joint problem-solving approach, with open communication between supervisors and those being supervised.

Performance is monitored and results are fed back to staff in a constructive manner and used to improve staff skills and knowledge.

Monitoring and feedback are used to sustain change and improve performance and motivation among staff. Providing feedback allows open dialogue between staff and their supervisors; feedback can celebrate superior performance and be constructive for inferior performance. It can also be used as a tool for continued learning (for example, following competency-based assessments, as described in the Supportive supervision module). Recent developments in the use of simple technology (gel dots) (12) for assessing the adequacy of cleaning surfaces, such as bed rails, may also be considered as part of a continuous process of quality assessment.

4.1.2 Non-monetary incentives

Non-monetary incentives (for example, verbal recognition and respect by supervisors, colleagues and patients) can strongly improve workers’ performance. This is particularly relevant for those working in environmental cleaning. In some contexts, those who clean are not recognized as integral to the overall health workforce. This lack of recognition, combined with those who clean having little control over job roles, responsibilities and the work environment, can affect job satisfaction, motivation and performance.

4.1.3 Clear expectations

Clear expectations of what is required of each staff member in their respective roles includes discussing roles and responsibilities with employees and making job descriptions available. A job description typically outlines an employee's required skills, training and background. It should also list the duties and responsibilities of the job and reporting and organizational structures. Job descriptions can be used in orientating employees to their role and in the evaluation of job performance.

4.1.4 Resource availability

If those who clean do not have adequate resources for cleaning, including access to water, or satisfaction with the way their work is organized, it can be difficult for them to perform their role to the required standard.

Provision of resources required for maintaining elevated levels of environmental cleaning depends on factors such as budgets, reporting and audit. In addition, the state of the WASH infrastructure in the health institution, including ready access to water and the condition of sanitation facilities, is key to maintaining standards of environmental cleaning in the daily work of those who clean. Health managers need to be engaged to ensure that these resource requirements are met and it is important to gauge the state of the wider WASH environment, as well as the specific needs of those who clean, during the baseline assessment before training.

Financial constraints can also oblige trainers to search for feasible or creative adaptations to the modules that require little or no financial outlay (for example, materials from the health care facility, hardware stores or local markets). However, if the contents of this package are to be effective, the health care facility needs to agree to meet a baseline level of financial investment for the training of those who clean in order to maintain the environmental standards that will lead to the target outcomes.

4.1.5 Assessing impact

Tools used during baseline data collection (IPCAF, WASH FIT or basic needs assessment) can be used to understand where progress has been made and where gaps remain for decision-making, sustainability and future planning.

The findings of these assessments should be presented to the IPC Committee or steering group. This committee/group should establish ongoing review and engagement cycles to embed this training in existing processes across the health care facility, thus contributing to its overall impact and sustainability.

In addition to the use of structural and process indicators, the IPC committee or steering group can advise on the use of environmental indicators to monitor cleaning practices (for example, fluorescent marker systems, or other mechanisms to monitor the bio-burden before and after cleaning (12)). These environmental indicators have their own advantages and disadvantages.

IPC committee members where in place are best placed to advise on the use of indicators to assess the impact of environmental cleaning.

4.1.6 Ongoing leadership and organizational support

Sustainability requires ongoing leadership and support for environmental cleaning, including an organizational safety climate that values cleaning. An understanding of environmental cleaning as part of overall quality improvement and an integration of training within existing approaches to quality improvement are also useful.

4.2 Reviewing and planning for the future

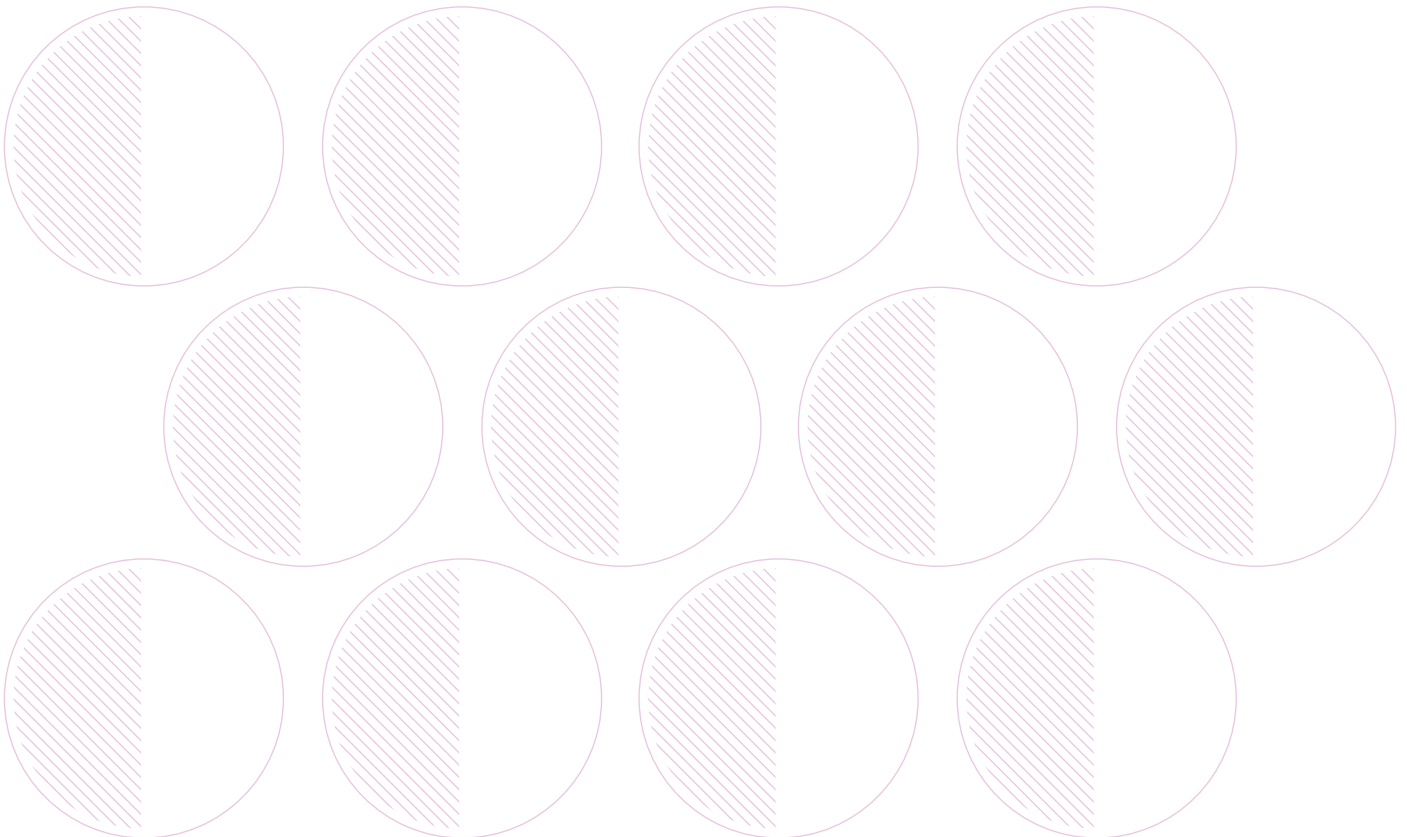
Having come to the end of the last step in the process, it is time to reflect on what has happened and consider longer term plans. The designated focal point should discuss the idea of setting up an annual review cycle with the IPC committee or steering group.

The focal point (on behalf of the IPC committee or steering group) should thank all those involved and celebrate and publicize their commitment and successes.

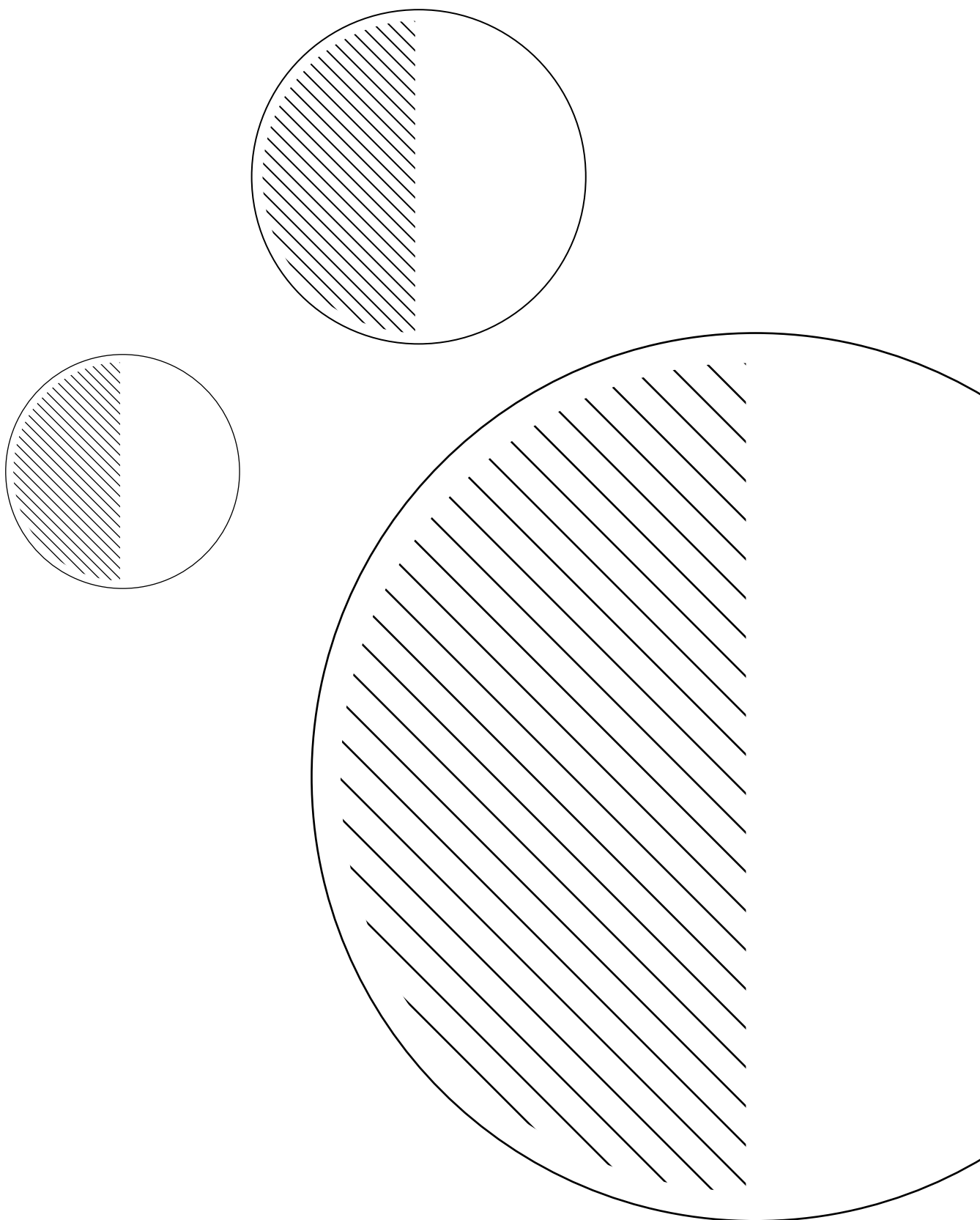
Finally, the person accountable for implementing this training should review the action checks below and consider whether each point has been addressed.

Action checks 4. Sustaining improved performance

#	Action Checks	Yes	No
1	We have considered the enabling environment that supports cleaning	✓	X
2	We have considered approaches to sustain improved performance	✓	X
3	We have conducted a follow-up assessment to determine the success of the training	✓	X
4	We have developed a long-term plan	✓	X



Annexes



Annex 1

Summary of existing training modules in IPC and WASH

IPC modules aimed at IPC focal points

Name of training course	Source
Introduction to IPC	https://openwho.org/courses/IPC-INTRO-EN
IPC core components and multimodal strategies	https://openwho.org/courses/IPC-CC-MMIS-EN
Standard precautions: hand hygiene	https://openwho.org/courses/IPC-HH-en
Standard precautions: The role of personal protective equipment	https://openwho.org/courses/IPC-SP-PPE-EN
Standard precautions: waste management	https://openwho.org/courses/IPC-WM-EN
Standard precautions: environmental cleaning and disinfection	https://openwho.org/courses/IPC-EC-EN
Basic microbiology	https://openwho.org/courses/IPC-MICRO-EN
Standard precautions: injection safety and needlestick injury management	https://openwho.org/courses/IPC-IS-EN
Infection Prevention and Control (IPC) in the context of COVID-19	https://openwho.org/courses/COVID-19-IPC-EN
Infection Prevention and Control in Maternal and Neonatal Care	https://openwho.org/courses/care-pregnant-woman-antenatal-clinic-en

WASH modules aimed at WASH focal points

Name of training course/resource	Source
WASH FIT: manual for trainers	https://apps.who.int/iris/handle/10665/353805
WASH FIT Training Modules: WASH links with health; WASH FIT methodology; Managing safe water supplies; Sanitation; Hand hygiene; Health care waste; Environmental cleaning; Climate resilience; Gender equality, disability & social inclusion	https://washinhcf.org/wash-fit-training-modules/

Annex 2

Summary of guidance, tools and best practice documents relevant to environmental cleaning including the training of those who clean

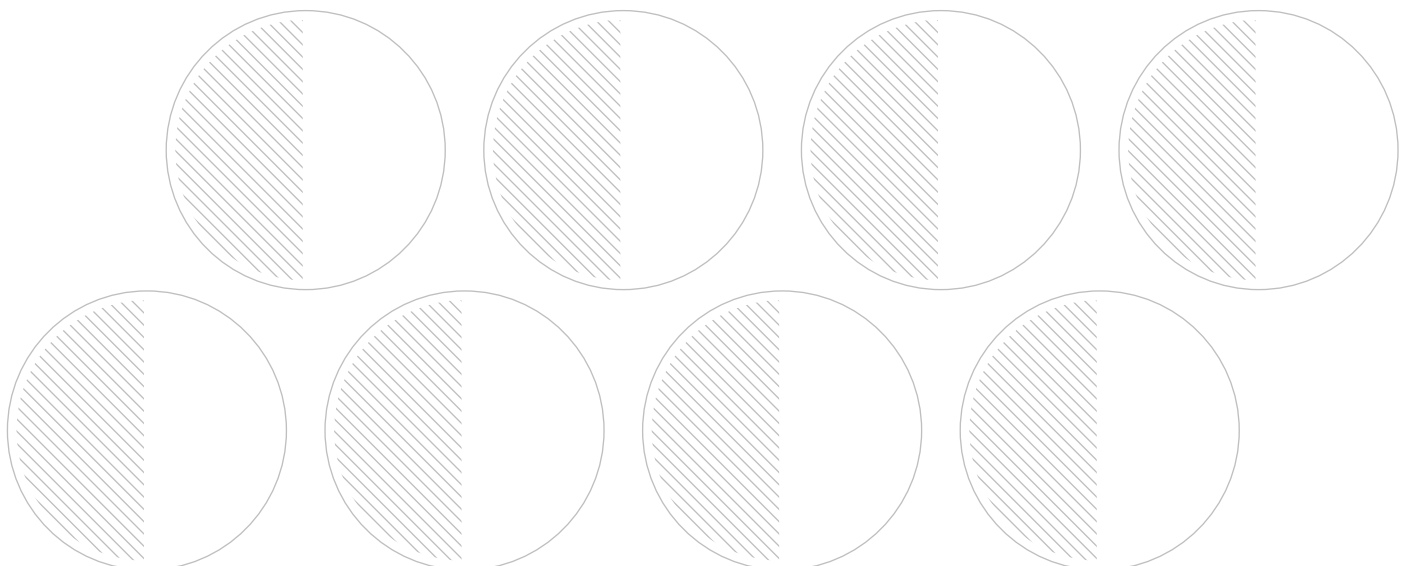
Document	Purpose	Links
Best practice document		
Best practices for environmental cleaning in healthcare facilities: in resource-limited settings. CDC/ICAN (2020) (6)	To improve and standardize the implementation of environmental cleaning in patient care areas in all health care facilities in resource-limited settings.	https://www.cdc.gov/hai/pdfs/resource-limited/environmental-cleaning-RLS-H.pdf
Relevant Implementation tools and guidance on IPC and WASH		
Improving infection prevention and control at the facility level. Interim practical manual supporting implementation of the WHO guidelines on core components of infection prevention and control programmes. WHO (2018) (14)	Designed to support health care facilities to effectively implement their IPC programmes according to the relevant WHO guidelines.	https://apps.who.int/iris/handle/10665/279788
Infection prevention and control assessment framework at the facility level. WHO (2018) (8)	A structured questionnaire with a closed format and an associated scoring system that is primarily intended to be self-administered, to assess the current facility IPC situation.	https://apps.who.int/iris/handle/10665/330072
Minimum requirements for infection prevention and control programmes. WHO (2019) (7)	To present and promote the minimum requirements for IPC programmes at the national and health care facility level (requirements identified by expert consensus according to available evidence and in the context of the WHO core components).	https://apps.who.int/iris/bitstream/handle/10665/330080/9789241516945-eng.pdf?sequence=1&isAllowed=y
Hand Hygiene: Why, How and When? WHO (2009) (15)	Brochure that addresses the why, when and how of hand hygiene, and includes step-by-step instructions on how to handrub and how to handwash. Also includes the 'Your 5 moments for hand hygiene' image and the glove use pyramid to aid decision-making on when to wear (and when to not wear) gloves.	https://www.who.int/publications/m/item/hand-hygiene-why-how-when

Summary of guidance, tools and best practice documents relevant to environmental cleaning including the training of those who clean (continued...)

Document	Purpose	Links
Water, sanitation, and hygiene in health care facilities: practical steps to achieve universal access to quality care. WHO/UNICEF (2019) (16)	Presents eight practical steps that Member States can take at the national and sub-national level to improve WASH in health care facilities and summarizes the global response to the United Nations Secretary-General's Call to Action on WASH in health care facilities.	https://apps.who.int/iris/handle/10665/311618
Water and sanitation for health facility improvement tool (WASH FIT): a practical guide for improving quality of care through water, sanitation and hygiene in health care facilities, 2nd ed 2022 (9)	A risk-based management tool for health care facilities, covering key aspects of WASH services: water; sanitation; hand hygiene; environmental cleaning; health care waste management; and selected aspects of energy, building and facility management.	https://apps.who.int/iris/handle/10665/353411
Essential environmental health standards in health care. WHO (2008) (13)	Provides essential environmental health standards required for health care settings in medium- and low-resource countries to support assessment and planning, development of standards, and to support the development and application of national policies.	https://apps.who.int/iris/bitstream/handle/10665/43767/9789241547239_eng.pdf?sequence=1
Implementation manual to prevent and control the spread of carbapenem-resistant organisms at the national and health care facility level. Interim practical manual WHO (2019) (17)	Designed to support national IPC programmes and health care facilities to effectively implement the WHO guidelines for the prevention and control of carbapenem-resistant Enterobacterales, <i>Acinetobacter baumannii</i> and <i>Pseudomonas aeruginosa</i> in health care facilities.	https://apps.who.int/iris/handle/10665/312226
Antimicrobial stewardship programmes in health-care facilities in low and middle income countries. A WHO practical toolkit. WHO (2019) (18)	Aims to support countries in implementing objective 4 of the Global Action Plan – ‘optimize the use of antimicrobial medicines’ – by providing practical guidance on how to implement antimicrobial stewardship programmes in the human health sector at the national and health care facility level in LMIC.	https://apps.who.int/iris/handle/10665/329404

Summary of guidance, tools and best practice documents relevant to environmental cleaning including the training of those who clean (continued...)

Document	Purpose	Links
Standards for improving quality of maternal and newborn care in health care facilities. WHO (2016) (19)	Aims to support preparation of national standards of care and measures for improving, assessing and monitoring the quality of care provided to mothers and newborns in health care facilities, and as a basis for quality improvement strategies. Can be used as a resource in medical training institutions. Emphasis throughout on clean environments.	https://apps.who.int/iris/handle/10665/249155
Cleaning and disinfection of environmental surfaces in the context of COVID-19. WHO (2020) (20)	Aims to provide guidance on the cleaning and disinfection of environmental surfaces in the context of COVID-19 – outlines products to be used and the importance of cleaning.	https://apps.who.int/iris/handle/10665/332096
Standard precautions for the prevention and control of infections: aide-memoire. WHO (2022) (21)	Standard precautions aim to protect both health workers and patients by reducing the risk of transmission of microorganisms from both recognized and unrecognized sources. This aide-memoire presents a concise overview of important advice for implementation and key elements at a glance.	https://apps.who.int/iris/handle/10665/356855



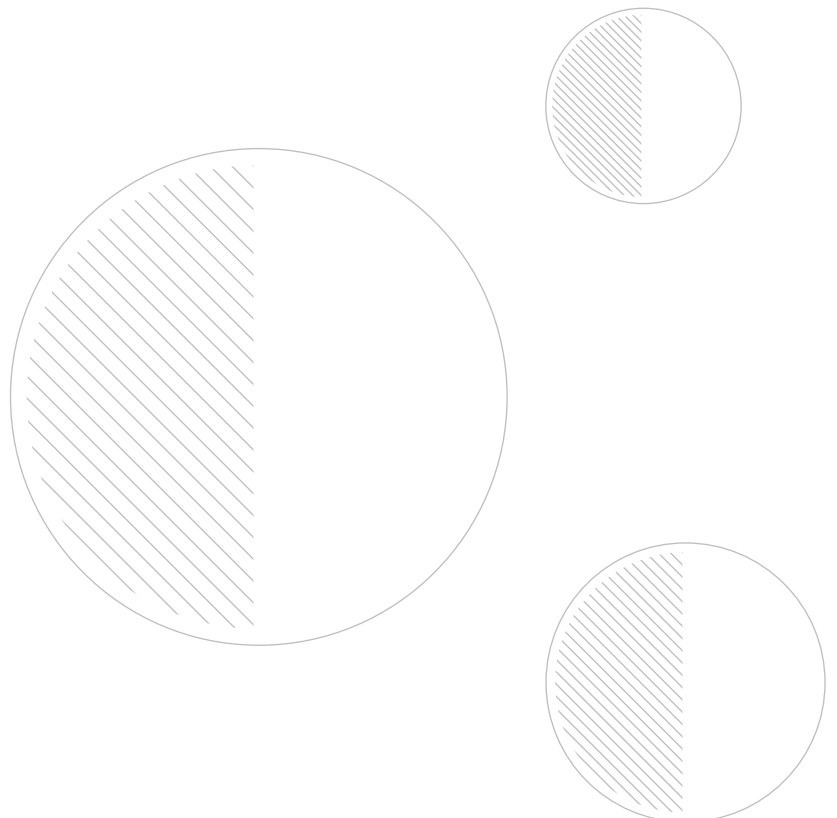
Annex 3

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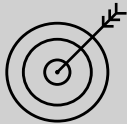


Summary of IPCAF, WASH FIT and a Basic Needs Assessment tool

This annex summarizes the characteristics of three different available assessment tools:






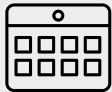
- Infection Prevention and Control Assessment Framework (IPCAF) (8).
- Water and Sanitation for Health Facility Improvement Tool (WASH FIT) (9).
- A basic needs assessment (featured in [Modules and resources](#)).



Summary of IPCAF, WASH FIT and a Basic Needs Assessment tool

Assessment tools	IPCAF	WASH FIT	Basic needs assessment
Website	https://www.who.int/publications/i/item/WHO-HIS-SDS-2018.9	https://apps.who.int/iris/handle/10665/353411	See Basic Needs Assessment Tool in “ <i>Modules and resources</i> ”
 Aim of the tool and what it measures	<ul style="list-style-type: none"> The IPCAF is a structured, closed-formatted questionnaire with an associated scoring system. The framework is intended for acute health care facilities, but it can be used in other inpatient health care settings. IPCAF can assess existing IPC activities/resources; identify strengths and gaps to inform future plans, and detect problems or shortcomings that require improvement to meet international standards. 	<ul style="list-style-type: none"> WASH FIT is a risk-based approach for improving and sustaining water, sanitation and hygiene and health care waste management infrastructure and services in health care facilities in low- and middle-income countries. Use of WASH FIT in health care facilities can help reduce maternal and newborn mortality and improves the quality of care so that women can deliver with dignity, further benefiting holistic health aims. 	<ul style="list-style-type: none"> The Basic Needs Assessment Tool evaluates the current status of the management of environmental cleaning in the maternity unit.
 Applicability	<ul style="list-style-type: none"> Acute health care facilities, but can be used in other inpatient health care settings. 	<ul style="list-style-type: none"> Health care facilities in low-resource settings. 	<ul style="list-style-type: none"> Maternity units, but can be applied to other health care facility units.
 Outline	<ul style="list-style-type: none"> Eight sections reflecting the eight WHO IPC core components: <ol style="list-style-type: none"> IPC programme. IPC guidelines. IPC education and training. health care-associate infection surveillance. multimodal strategies. monitoring/audit. workload, staffing and bed occupancy. built environment, materials and equipment for IPC at the facility level. A total of 81 indicators. 	<ul style="list-style-type: none"> Assessment tool that includes indicators associated with environmental cleaning (supplies, policies, personnel). 	<ul style="list-style-type: none"> Personnel responsible for cleaning and supervision of cleaning. Role responsibilities. Supervision and monitoring. Provision of training. Training topics. Resources. IPC committee. Policies, protocols and guidelines.

Summary of IPCAF, WASH FIT and a Basic Needs Assessment tool (continued...)

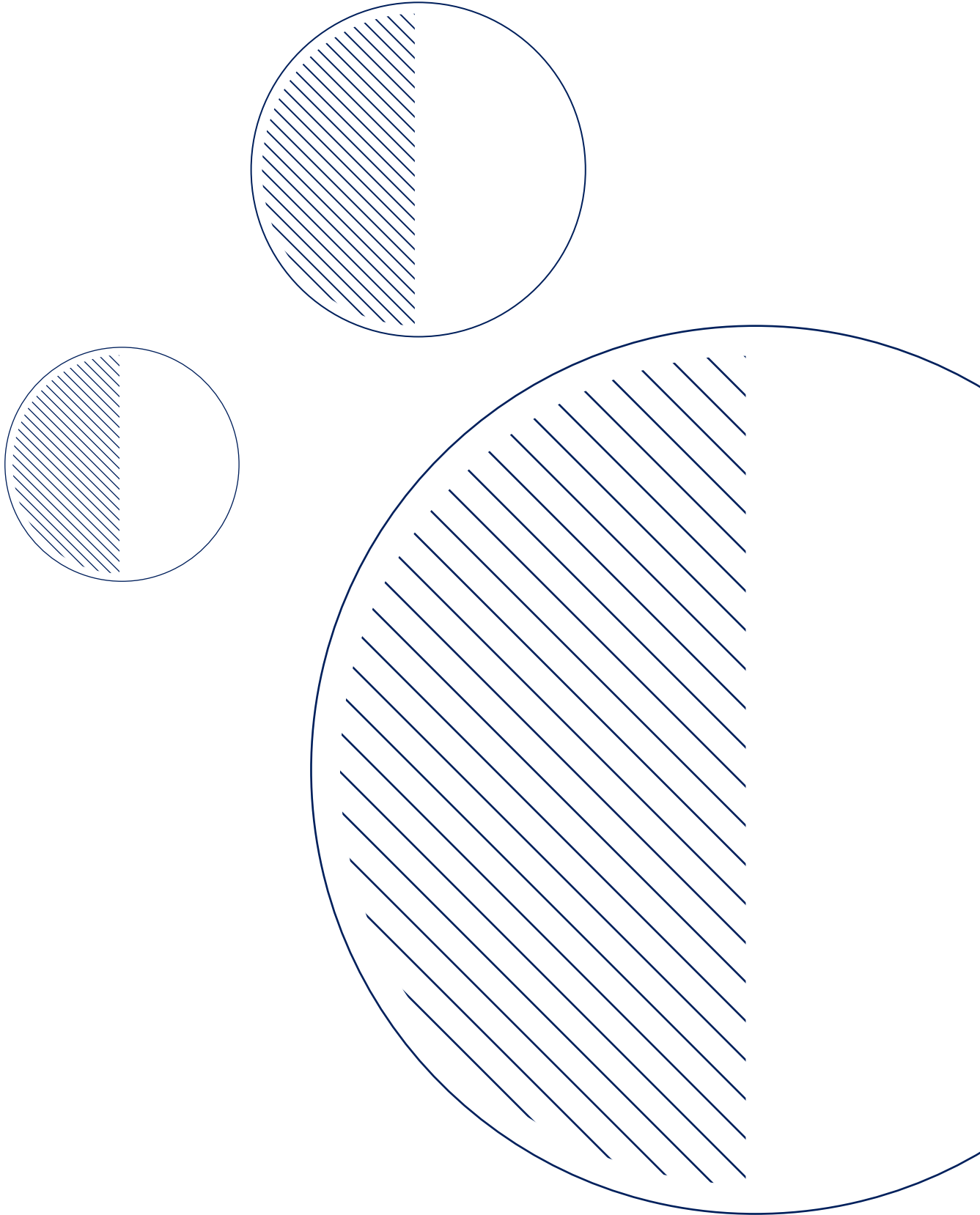
Assessment tools	IPCAF	WASH FIT	Basic needs assessment
 Time to complete	<ul style="list-style-type: none"> Approximately 2–3 hours. 	<ul style="list-style-type: none"> If information is readily available: 3–6 hours. If there is a need to gather information, may take substantially longer. 	<ul style="list-style-type: none"> If information is readily available: 30–45 minutes. If there is a need to gather information, may take 1.5 hours.
 Who completes	<ul style="list-style-type: none"> Health care professionals and teams responsible for organizing and implementing IPC activities. If these do not exist or there is no IPC programme, senior facility managers complete the tool. 	<ul style="list-style-type: none"> Health care facility managers and staff (for example, chief medical officer, financial administrator, doctors, nurses and persons in charge of managing water and waste). 	<ul style="list-style-type: none"> A senior member of staff from the maternity unit (for example, matron, head nurse or lead physician).
 Manual or online	<ul style="list-style-type: none"> For manual completion using a paper form. 	<ul style="list-style-type: none"> Manual and online via an application. 	<ul style="list-style-type: none"> For manual completion using a paper form.
 Length	<ul style="list-style-type: none"> 15 pages. 	<ul style="list-style-type: none"> 128 pages. 	<ul style="list-style-type: none"> 9 pages.
 Analysis and data visualization	<ul style="list-style-type: none"> Scoring system to guide development of action plans. Scores range from inadequate through to basic, intermediate and advanced. Template slides available to present data (https://www.who.int/publications/m/item/ipc-assessment-framework-presentation-template). 	<ul style="list-style-type: none"> Table available for recording the percentage score of each section. 	<ul style="list-style-type: none"> Self-review of information gathered. No scoring system.
 Frequency	<ul style="list-style-type: none"> For local decision, but potentially as an annual cycle. 	<ul style="list-style-type: none"> A full facility assessment should ideally be conducted every 6–12 months, depending on the size of the facility. 	<ul style="list-style-type: none"> Before training.

Annex 4

Multimodal factors to support sustainability of the improvements

Multimodal factor	Prompt questions	Examples
Infrastructure, supplies and hardware	<ul style="list-style-type: none"> What resources, infrastructure or supplies are required for success? 	<ul style="list-style-type: none"> The resources needed to do the job, including those related to WASH. An instruction document. Trainer or supervisor guide. Cleaning procedures – in a range of formats to suit the target audience and including a synthesis of current evidence (found in <i>Modules and resources</i>). Availability of job descriptions outlining clear expectations of the role of those who clean.
Training and education	<ul style="list-style-type: none"> How can training success be assured? 	<ul style="list-style-type: none"> Use training principles and governance described in this document.
Monitoring, assessment and feedback	<ul style="list-style-type: none"> How have you become aware that cleaning practices need to be improved? How will you know that a improvement has taken place? 	<ul style="list-style-type: none"> Cleanliness monitoring approaches. Assessments (found in <i>Modules and Resources</i> document). Supportive supervision (found in <i>Modules and Resources</i> document).
Reminders and communication aids	<ul style="list-style-type: none"> How will you publicize action on specific measures and promote improvement and best practice in this area? 	<ul style="list-style-type: none"> Reminders to prompt ongoing good practices (<i>Modules and resources</i>). Advocacy for cleaning at different levels: <ul style="list-style-type: none"> – promote the value of cleaning. – support the need for training as part of an improvement strategy. – address gender and equity issues. – advocate to help sell the value of a clean culture, especially with health care managers.
Organizational support and leadership	<ul style="list-style-type: none"> How will you make and maintain cleaning as a health care facility priority and engage senior leaders, managers, champions and opinion leaders over time? 	<ul style="list-style-type: none"> Development of leaders and champions who empower those who clean. Use of non-monetary incentives.

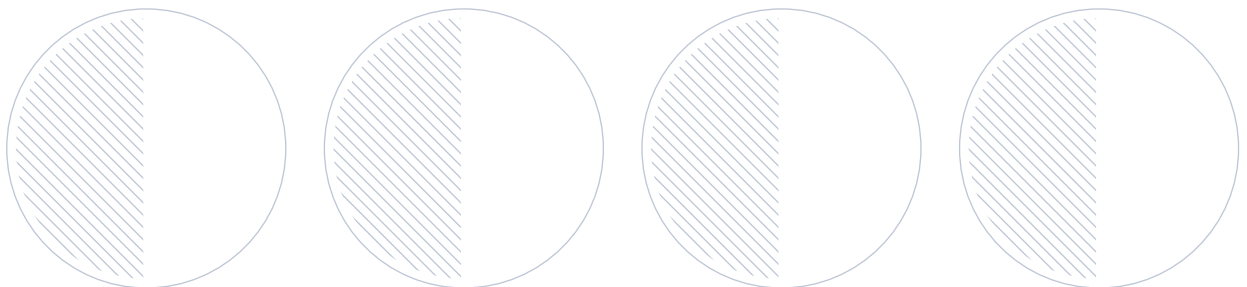
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