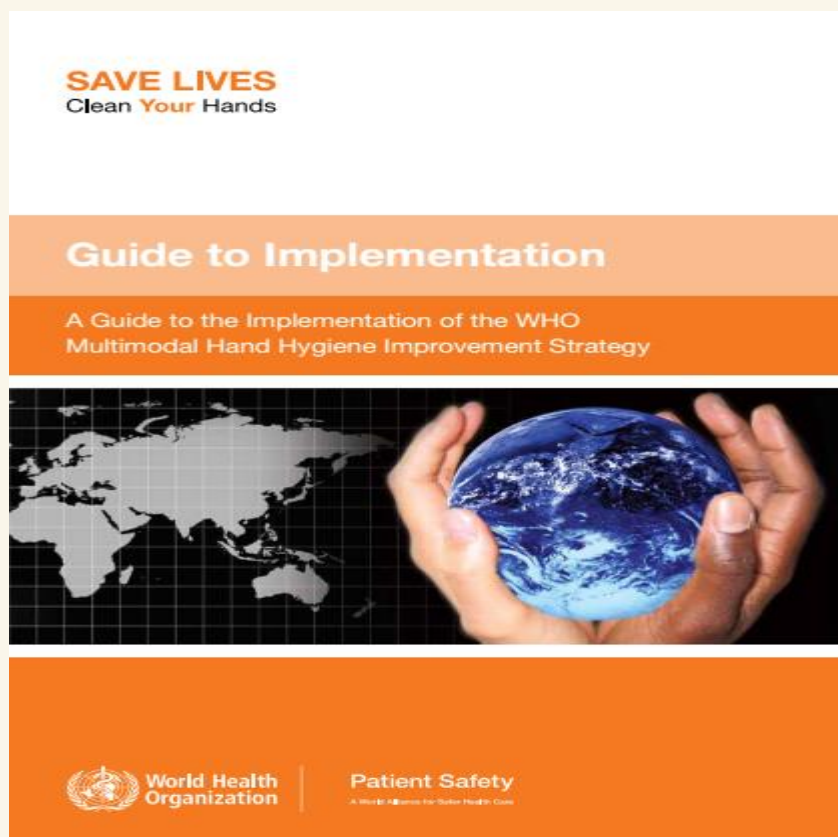




WHO MULTIMODAL HAND HYGIENE IMPROVEMENT STRATEGY



Objectives

➤ **PART I**

- Importance
- WHO multimodal strategies

➤ **PART II**

- WHO multimodal thinking

➤ **PART III**

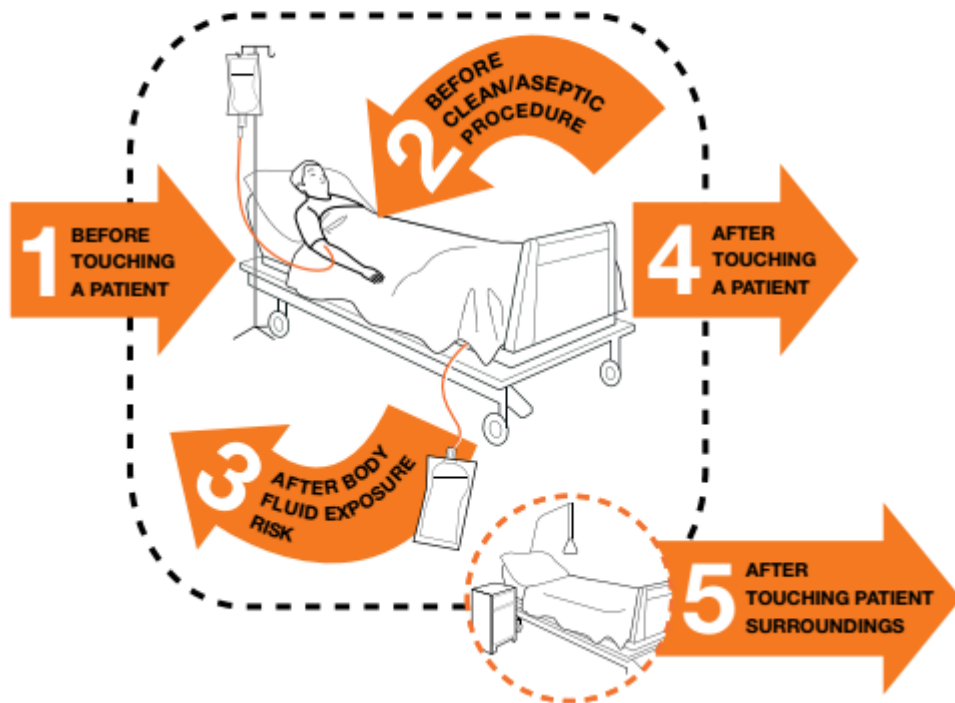
- The five-Step Approach To H.H Improvement





WHO

My 5 Moments for Hand Hygiene





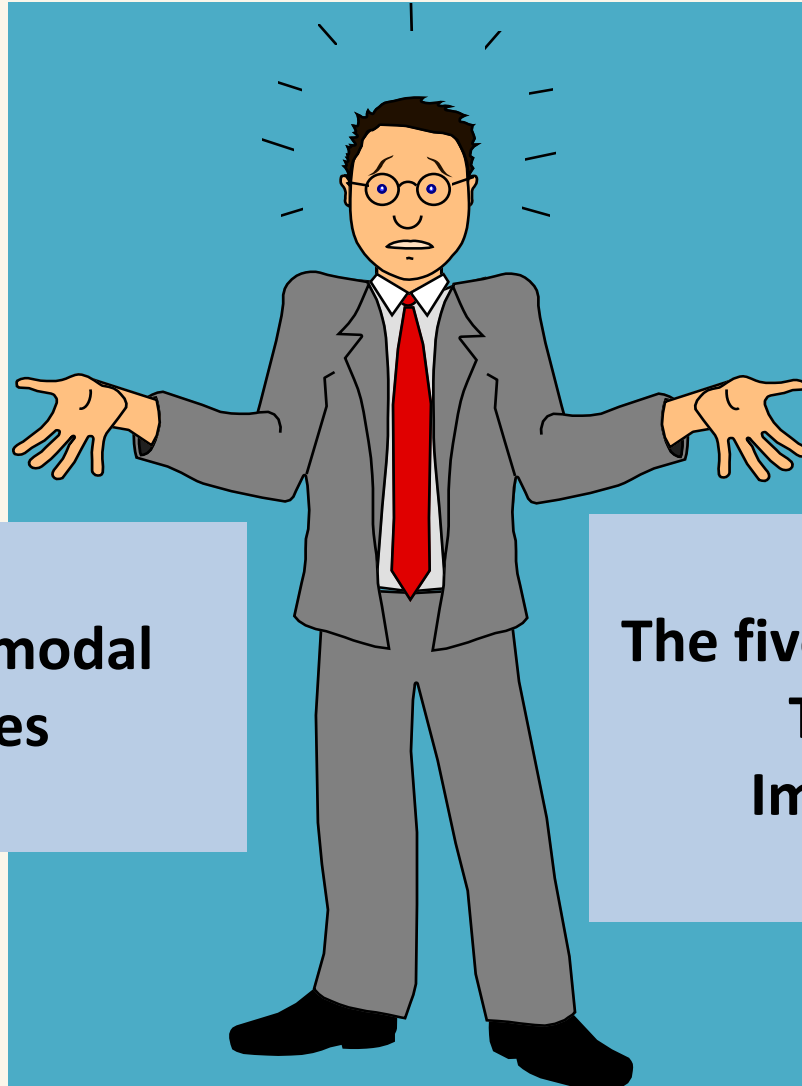
Published Studies Suggest

- WHO Guidelines on Hand Hygiene in Health Care:

**On average, compliance
with hand hygiene is
around 40%.**



What to Do?



**WHO multimodal
strategies**

**The five-Step Approach
To H.H/IPC
Improvement**



Multimodal Strategy

Multimodal strategy: consists of several of **elements** or **components** (≥ 3 ; usually 5) implemented in an **integrated** way with the aim of **improving an outcome** and **changing behavior**.



It includes **tools**, such as **bundles and checklists**, developed by **multidisciplinary teams** that take into account **local conditions**.



Bundles

A bundle is an **implementation tool** aiming to **improve the care process** and **patient outcomes** in a **structured manner**.



It comprises a small, **straightforward set of evidence-based practices** (generally 3 to 5) that have been **proven to improve patient outcomes** when performed collectively and reliably.



The 5 Most Common Components of Multimodal Strategy

(i) **System change** (that is, availability of the appropriate infrastructure and supplies to enable IPC good practices)

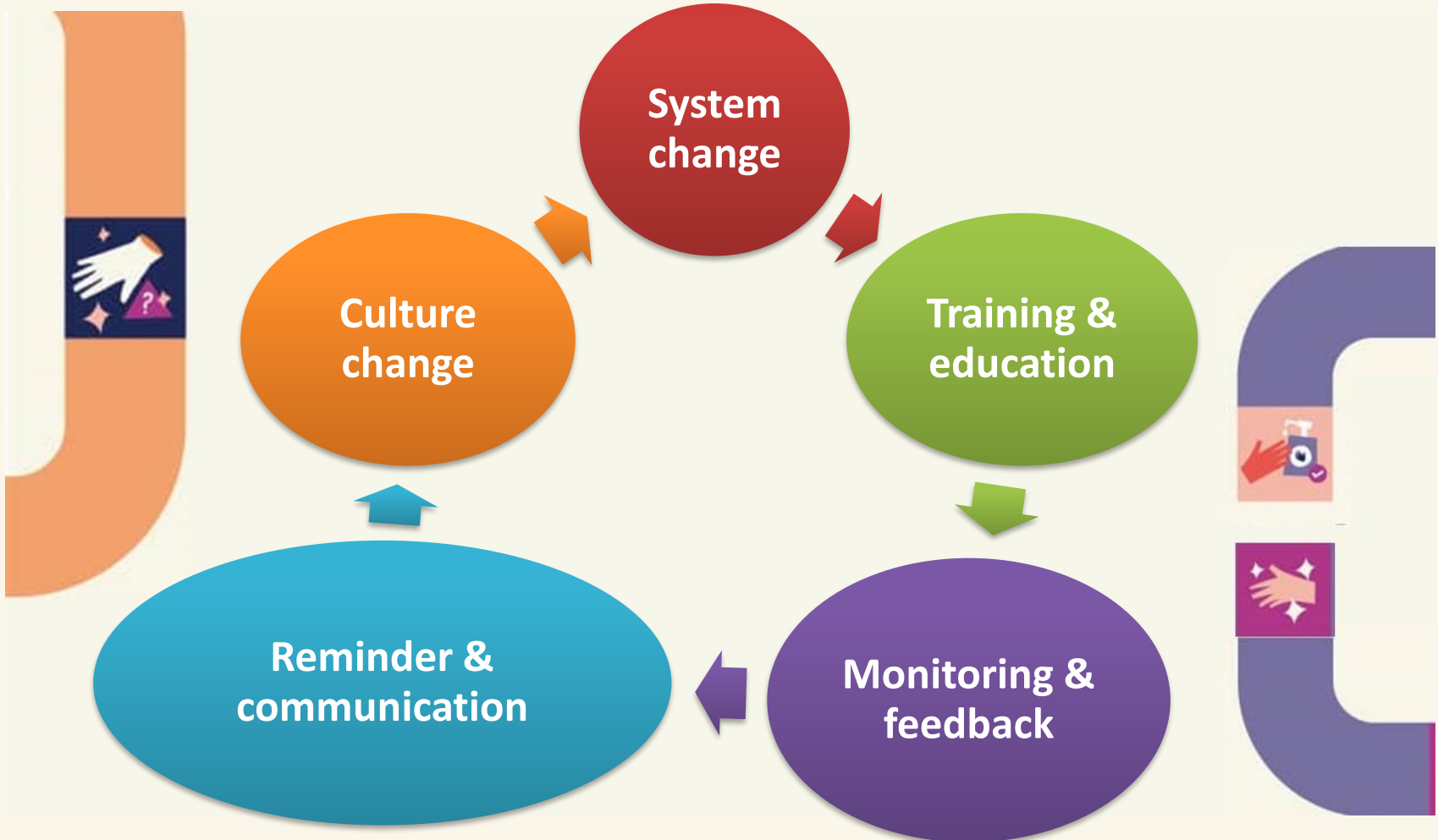
(ii) **Education and training** of HCWs and key players (for example, managers)

(iii) **Monitoring** infrastructures, practices, processes, outcomes and providing **data feedback**

(iv) **Reminders** in the workplace/communications

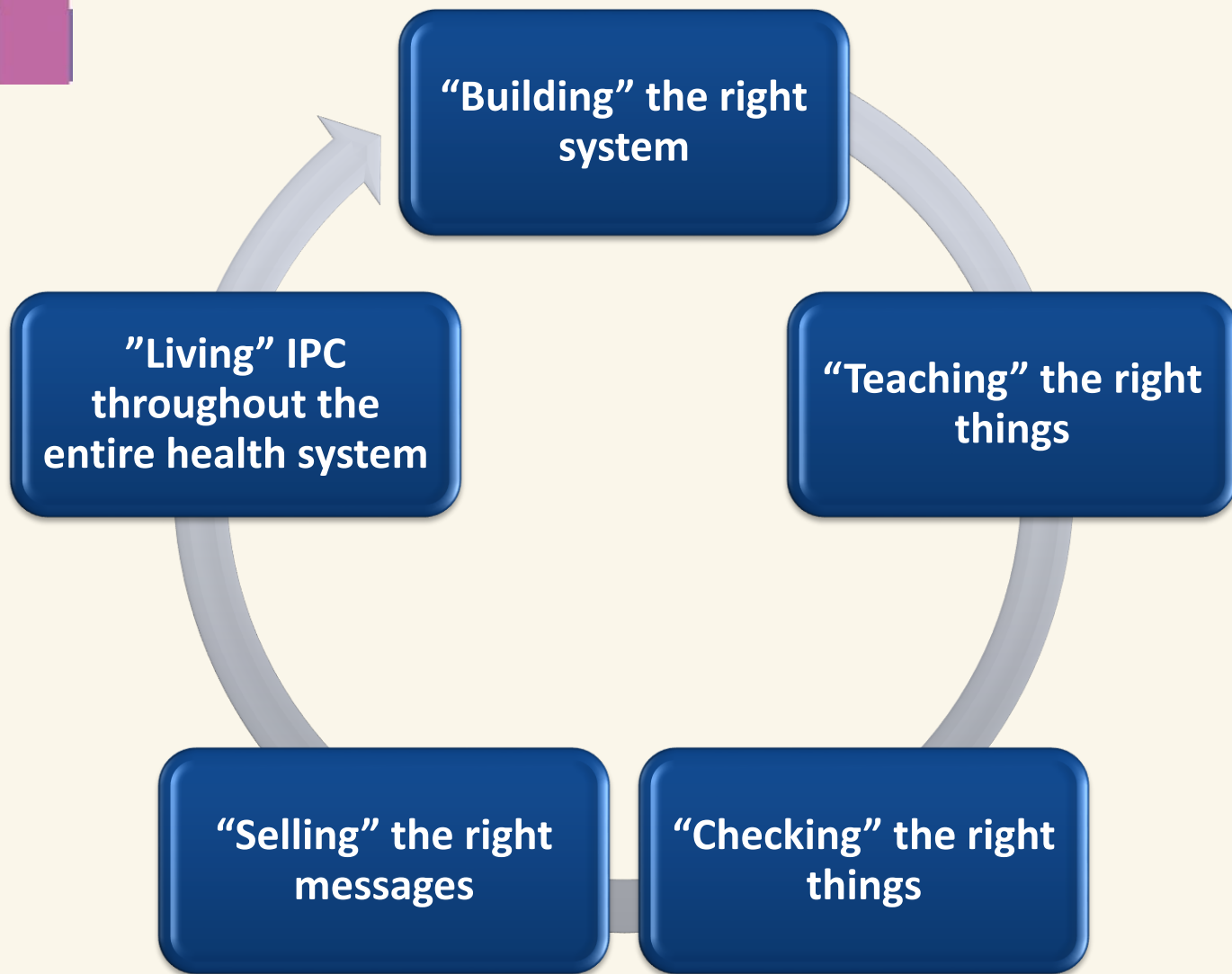
(v) **Culture change** with the establishment or strengthening of a safety climate

H.H/IPC Multimodal Strategies



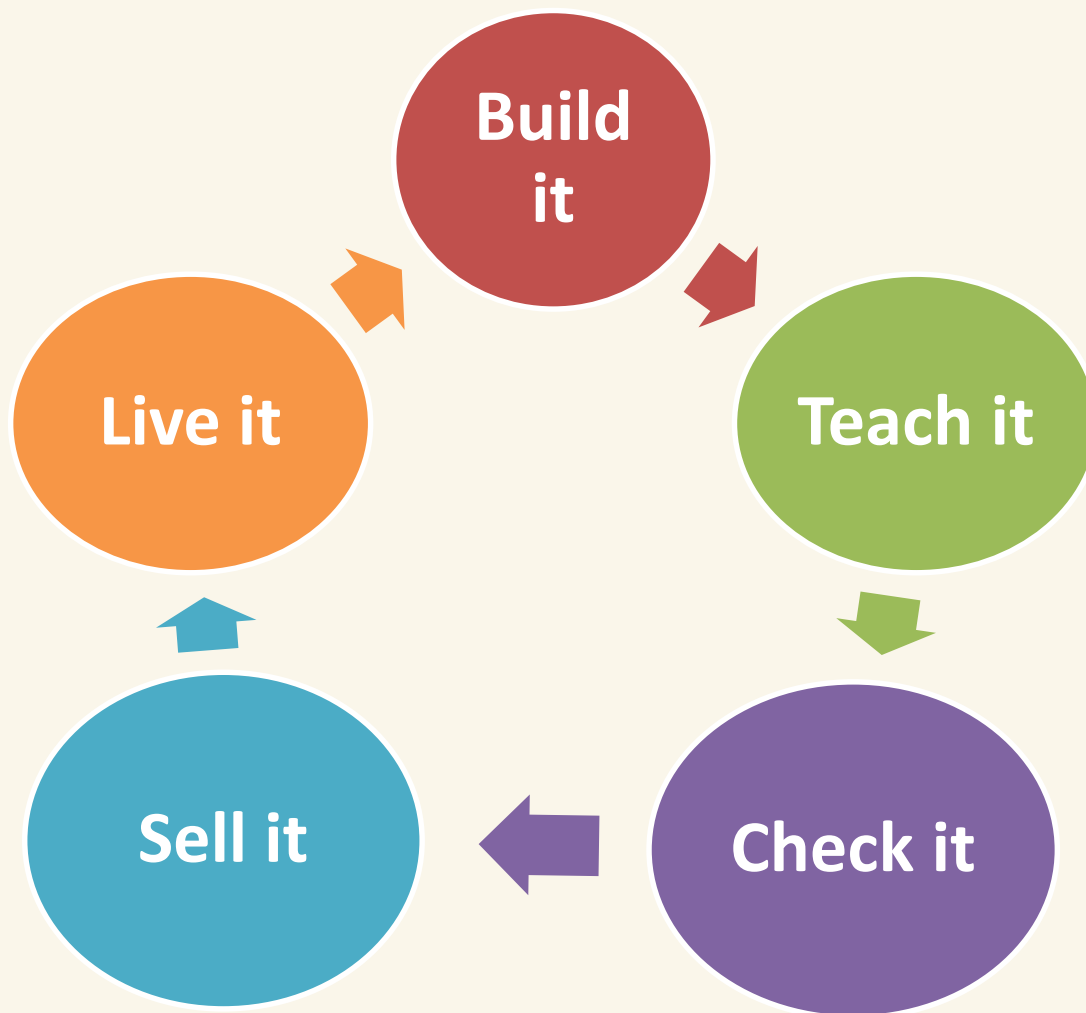


The WHO Multimodal Strategy

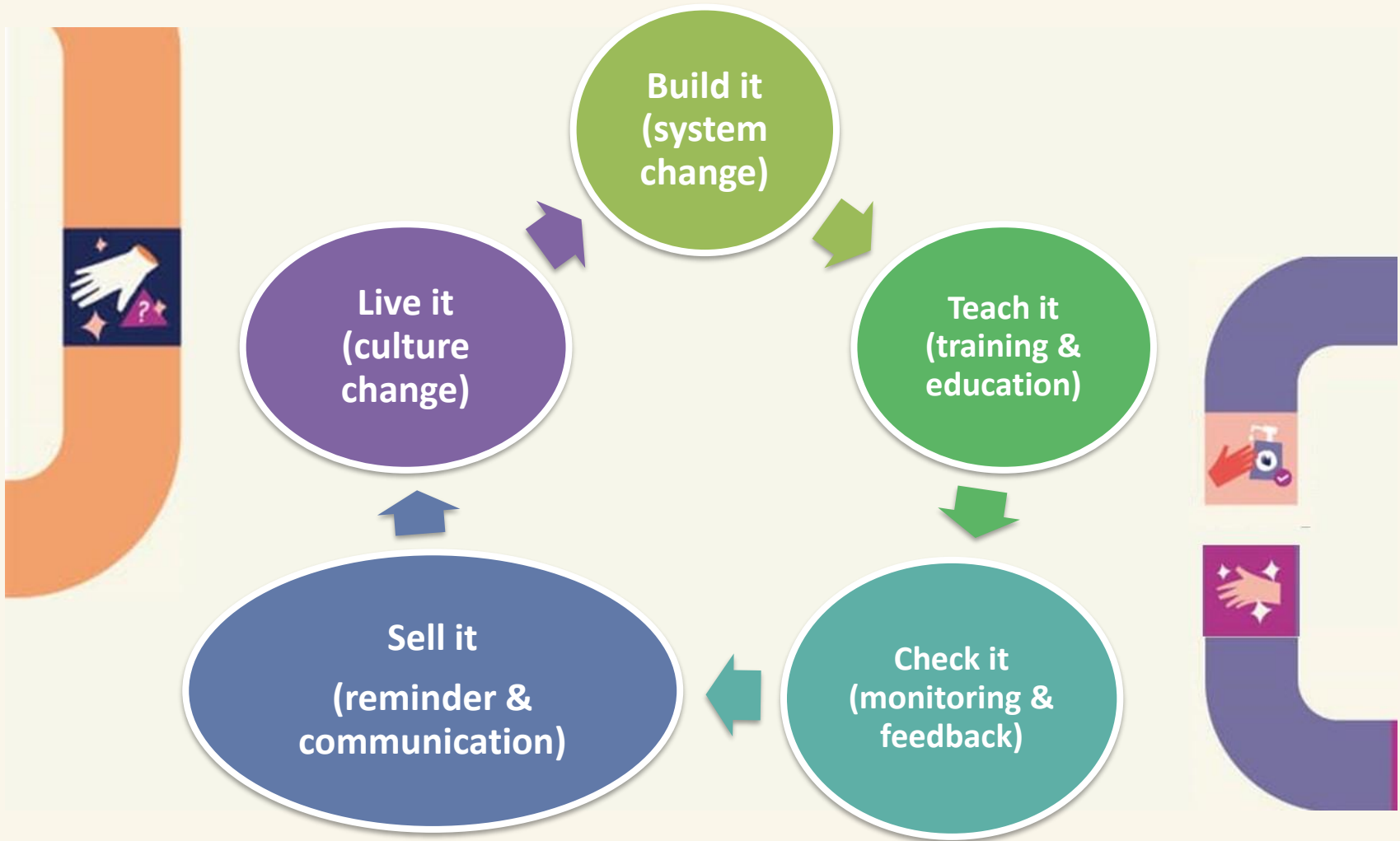




H.H/IPC Multimodal Strategies



H.H/IPC Multimodal Strategies






H.H/IPC

Multimodal Strategies

Targeting **only one** of these 5 elements = using a “unimodal” strategy, is more likely to result in improvements that are **short-lived** and **not sustainable**.

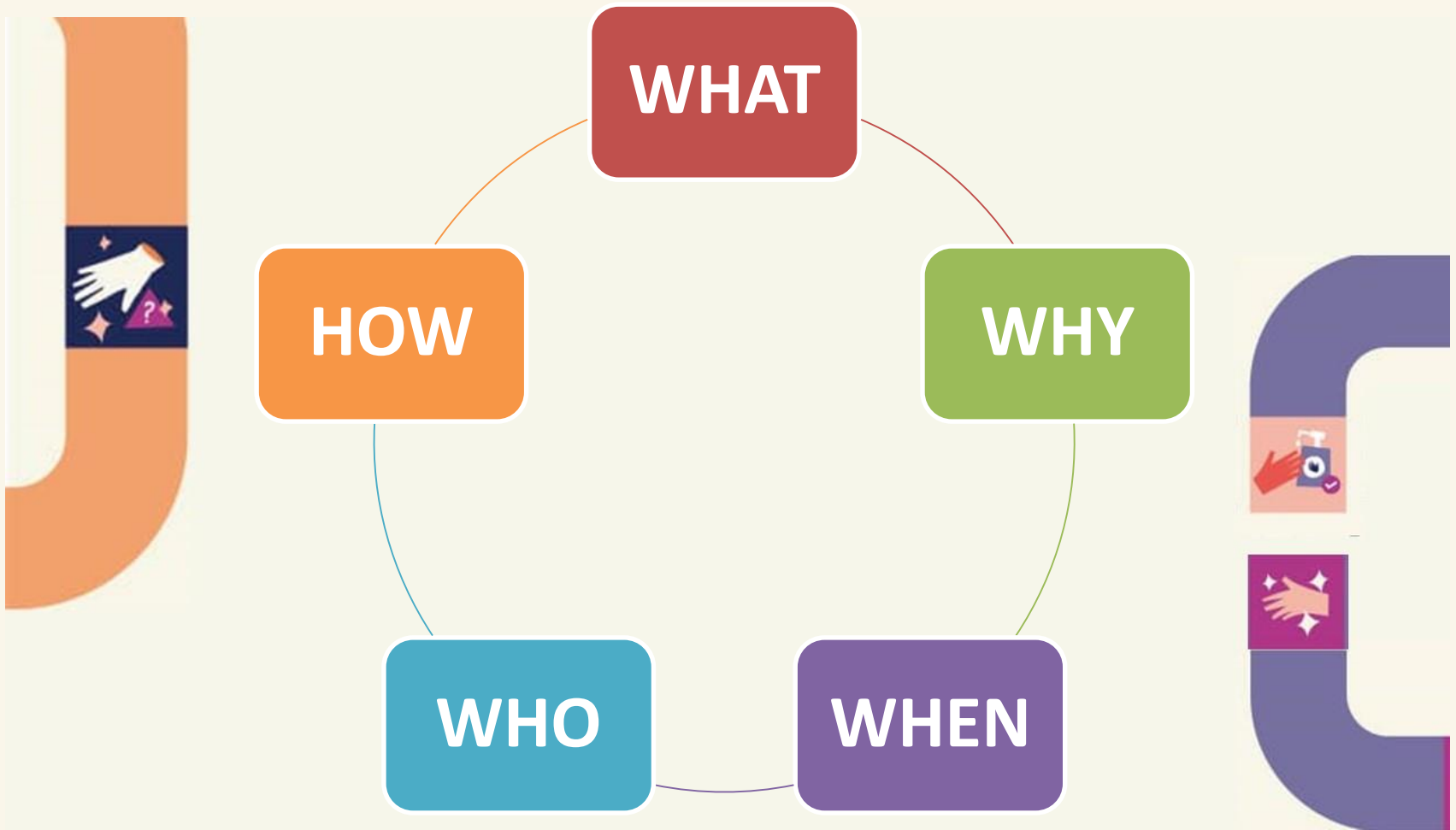


All five areas should be **considered and necessary action taken**, based on the local context and situation informed by periodic assessments.

Multimodal Thinking



Multimodal Thinking



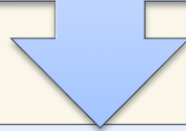
Multimodal Thinking

1. **What** resources, infrastructures or supplies are required to facilitate practices?
2. **Who** needs to be trained and/or educated to address the identified gap – how will this happen and who will undertake the training/education?
3. **How** have you become aware that practices need to be improved
– how will you know that an improvement has taken place?
4. **How** will you publicize action on specific measures and promote improvement and best practice in this area?
5. **How** will you make and maintain this as a health care facility priority and engage senior leaders/managers/champions and opinion leaders over time?



Multimodal Thinking

1. What resources, infrastructures or supplies are required to facilitate practices?



This includes consideration of procurement and accessibility of supplies, water availability and quality and ergonomic factors including workflow.

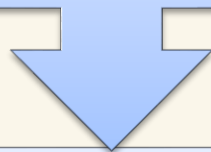


For example the placement of a central venous catheter set and tray (system change/"build it").

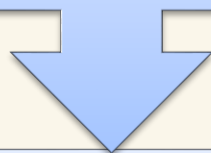


Multimodal Thinking

2. Who needs to be trained and/or educated to address the identified gap – how will this happen and who will undertake the training/education?



This involves written information and/or oral instruction and/ or e-learning and practical and interactive training sessions, including simulation and/or bedside training.

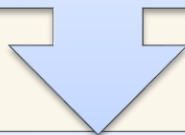


For example, the training of doctors and nurses in charge of the placement and maintenance of CVC on the prevention of BSI, including summarizing critical best practices in bundles (education and training/"teach it").



Multimodal Thinking

3. How have you become aware that practices need to be improved
– how will you know that an improvement has taken place?



This usually involves **monitoring compliance with process and practice indicators**, as well as **monitoring outcome indicators**.

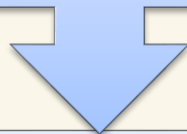


For example, audits of catheter insertion and maintenance and the provision of timely and direct feedback of results to doctors and nurses (monitoring and feedback/" check it").



Multimodal Thinking

4. How will you publicize action on specific measures and promote improvement and best practice in this area?



This may involve the use of **reminders, posters** or other advocacy/awareness-raising tools and cues-to-action to promote an **intervention** and methods/initiatives to improve team communication across units and disciplines.

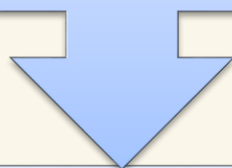


For example, discussion of the strategy for the prevention of BSI during **clinical meetings** and the use of **promotional leaflets and posters to reinforce** bundles of best practices (communications and reminders/"sell it").

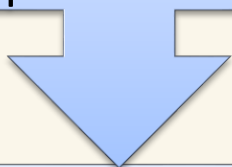


Multimodal Thinking

5. How will you make and maintain this as a health care facility priority and engage senior leaders/managers/ champions and opinion leaders over time?



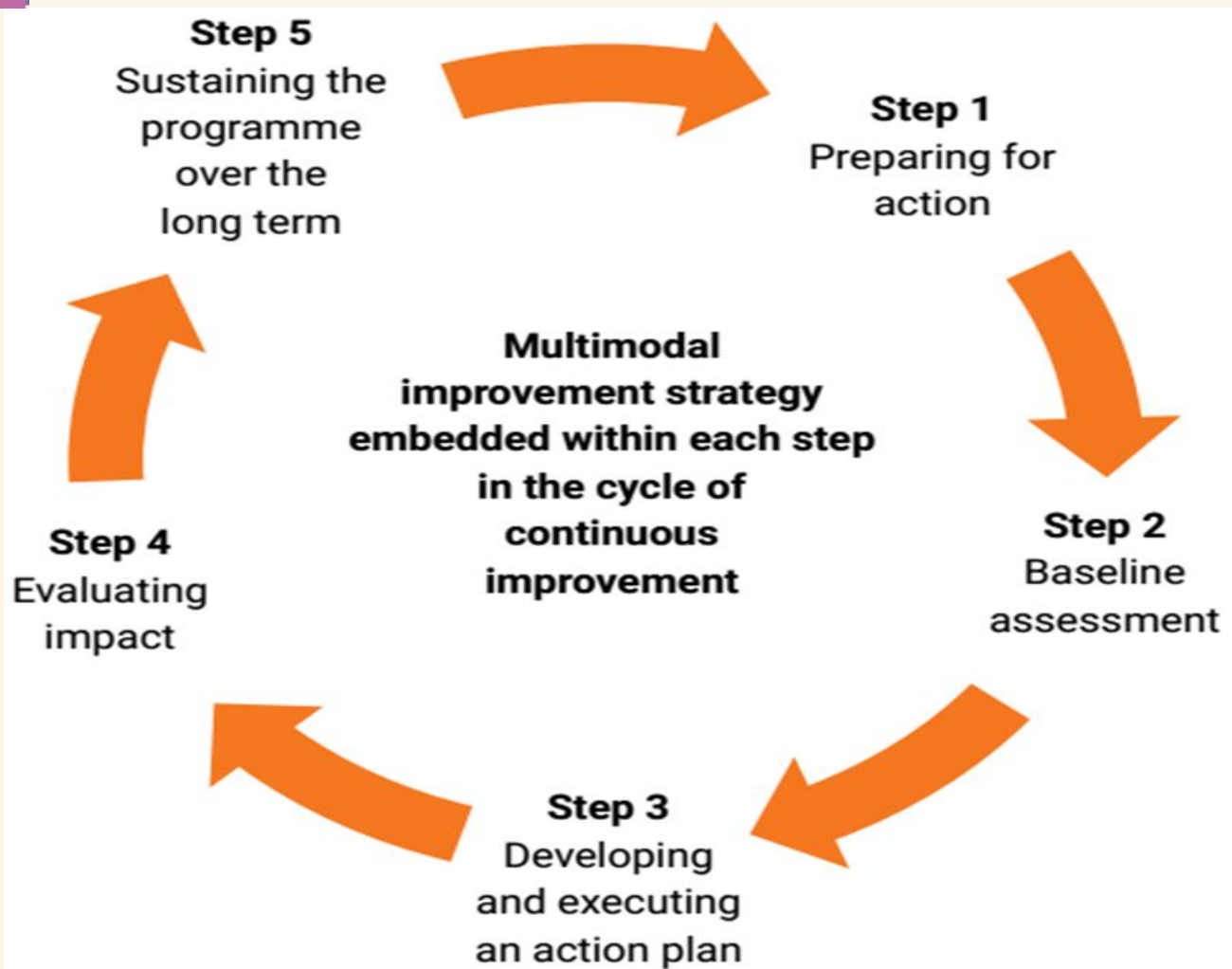
Concerned with ensuring that **senior managers/leaders** show tangible **support and act as champions** and **role models**, including making relevant decisions & promoting an adaptive approach & strengthening a culture that supports IPC, patient safety and quality. In addition, teams and individuals are empowered so that they perceive ownership of the intervention.



For example, discussion of BSI rates at the executive level facility meetings (safety climate and culture of safety/"live it").



The Five-Step Approach To H.H/IPC Improvement





The Five-Step Approach To H.H/IPC Improvement

Step 1. Preparing for action

Step 2. Baseline assessment

Step 3. Developing and executing an action
plan

Step 4. Assessing impact

Step 5. Sustaining the program over the
long term





The Five-step Approach To IPC Improvement

Step 1. Preparing for action

- This step ensures that **all of the prerequisites** that need to be in place for success are addressed, including:
 - *the necessary resources (human/financial),
 - *infrastructures,
 - *planning and coordination of activities **and**
 - *the identification of roles and responsibilities (including key opinion leaders and champions).

The facility senior managers/leaders play a critical role in this step.



The Five-step Approach To IPC Improvement

Step 2. Baseline assessment

- **Conducting an exploratory baseline assessment of the current situation, including the identification of existing strengths and weaknesses,** is critical for developing a tailor-made action plan that addresses the reality of a health care facility.

A ready-to-use assessment tool based on the WHO IPC core components is available for step 2 (WHO IPC Assessment Framework [IPCAF]).

Ideally, additional IPC assessment tools (for example, the Hand Hygiene Self-assessment Framework [HHSAF] and/or observation-based tools to evaluate IPC practices) could be used.



The Five-step Approach To IPC Improvement

Step 3. Developing and executing an action plan

- The results of the baseline assessment support the development and execution of an action plan based around a multimodal improvement strategy.



The Five-step Approach To IPC Improvement

Step 4. Assessing impact

- Conducting a **follow-up assessment** using the same tools as in step 2 is crucial to determine the effectiveness of the plan.

The focus is on:

- *impact,
- *acceptability **and**
- *cost-effectiveness



The Five-step Approach To IPC Improvement

Step 5. Sustaining the program over the long term

- An important step in the cycle of improvement is to develop an ongoing action plan and review schedule to **support the long-term impact** and benefits of the IPC program, thus contributing to its overall impact and **sustainability.**



Involving & Influencing Key People

- ☐ Health care facility leader
- ☐ Opinion leader
- ☐ Stakeholder
- ☐ Champion



Key Considerations & Actions (Step 1)

Leadership: National, regional and provincial/Facility

Human resources: An IPC team including a lead/focal person

Stakeholders, communications and advocacy

Financial resources

Interlinkages with other programs

Use of data



Relevance Of The Manual TO IPC Leads/Focal Persons & Teams In Different Settings

Each step is relevant to the process of improvement.

However, *depending on your local situation*, some steps may already have been achieved, while others may need gradual development or to be revisited because you may have not previously used the WHO IPC core components recommendations.

New challenges or changes within your health care facility may also have arisen.



Hand Hygiene

Multimodal Strategies





The Strategy Components

1. **System change:**

ensuring that the necessary infrastructure is in place to allow health-care workers to practice hand hygiene.

A vital component



The Strategy Components

1. System change:

This includes two essential elements:

- Access to a safe, continuous water supply, soap and towels.
- Readily accessible alcohol-based handrub at the **point of care.**

Compliance with hand hygiene is only possible if the health-care setting ensures an adequate infrastructure and if a reliable and permanent supply of hand hygiene products at the right time and at the right location is provided



Point of Care

- **Point of care** – The place where three elements come together:
the patient, the health-care worker, and care or treatment involving contact with the patient or his/her surroundings (within the patient zone).
- The concept embraces the need to perform hand hygiene at recommended moments exactly where care delivery takes place.
- This requires that a hand hygiene product, e.g. alcohol-based handrub, if available, will be easily accessible and **as close as possible (e.g. within arms reach)**, where patient care or treatment is taking place.
- Point-of-care products should be accessible **without having to leave the patient zone.**



Point of Care

- **Point of care** – The place where three elements come together: the patient, the health-care worker, and care or treatment involving contact with the patient or his/her surroundings (within the patient zone).
- Availability of alcohol-based hand-rubs at the point of care is usually achieved through staff-carried handrubs (*pocket bottles*), *wall-mounted dispensers*, *containers affixed to the patient's bed or bedside table* or to *dressing or medicine trolleys* that are taken into the point of care.



The Strategy Components

- 2. Training / Education:** providing regular training on the importance of hand hygiene, based on the
- “My 5 Moments for Hand Hygiene” approach, and
 - the correct procedures for handrubbing and
 - handwashing,
- to all health-care workers.



The Strategy Components

3. **Evaluation and feedback:** monitoring

- hand hygiene practices and
- infrastructure, along with
- related perceptions and
- knowledge among health-care workers,
- while providing performance and results feedback to staff.



The Strategy Components

4. Reminders in the workplace:

prompting and reminding health-care workers about:

- The importance of hand hygiene
- The appropriate indications
- Procedures for performing it



The Strategy Components

5. Institutional safety climate: creating an environment and the perceptions that facilitate awareness-raising about patient safety issues while guaranteeing consideration of hand hygiene improvement as a high priority at all levels, including

- active participation at both the institutional and individual levels;
- awareness of individual and institutional capacity to change and improve (self-efficacy); and
- partnership with patients and patient organizations.



The Strategy Components

- Each component deserves equally important, specific and integrated efforts to achieve effective implementation and maintenance.
- It is important to note that implementation, evaluation and feedback activities should be periodically rejuvenated and repeated and become part of the quality improvement actions that will ensure sustainability.



The Strategy Components

Hand hygiene improvement is not a time-limited process:

Hand hygiene promotion and monitoring should never be stopped once implemented.

Guide to Implementation of the WHO Multimodal Hand Hygiene Improvement Strategy

Template Action Plan

Tools for System Change	Tools for Training / Education	Tools for Evaluation and Feedback	Tools for Reminders in the Workplace	Tools for Institutional Safety Climate
Ward Infrastructure Survey	Slides for the Hand Hygiene Co-ordinator	Hand Hygiene Technical Reference Manual	Your 5 Moments for Hand Hygiene Poster	Template Letter to Advocate Hand Hygiene to Managers
Alcohol-based Handrub Planning and Costing Tool	Slides for Education Sessions for Trainers, Observers and Health-Care Workers	Observation Tools: Observation Form and Compliance Calculation Form	How to Handrub Poster	Template Letter to Communicate Hand Hygiene Initiatives to Managers
Guide to Local Production: WHO-recommended Handrub Formulations	Hand Hygiene Training Films	Ward Infrastructure Survey	How to Handwash Poster	Guidance on Engaging Patients and Patient Organizations in Hand Hygiene Initiatives
Soap / Handrub Consumption Survey	Slides Accompanying the Training Films	Soap / Handrub Consumption Survey	Hand Hygiene: When and How Leaflet	Sustaining Improvement – Additional Activities for Consideration by Health-Care Facilities
Protocol for Evaluation of Tolerability and Acceptability of Alcohol-based Handrub in Use or Planned to be Introduced: Method 1	Hand Hygiene Technical Reference Manual	Perception Survey for Health-Care Workers	SAVE LIVES: Clean Your Hands Screensaver	SAVE LIVES: Clean Your Hands Promotional DVD
Protocol for Evaluation and Comparison of Tolerability and Acceptability of Different Alcohol-based Handrubs: Method 2	Observation Form	Perception Survey for Senior Managers		
	Hand Hygiene Why, How and When Brochure	Hand Hygiene Knowledge Questionnaire for Health-Care Workers		
	Glove Use Information Leaflet	Protocol for Evaluation of Tolerability and Acceptability of Alcohol-based Handrub in Use or Planned to be Introduced: Method 1		
	Your 5 Moments for Hand Hygiene Poster	Protocol for Evaluation and Comparison of Tolerability and Acceptability of Different Alcohol-based Handrubs: Method 2		
	Frequently Asked Questions	Data Entry Analysis Tool		
	Key Scientific Publications	Instructions for Data Entry and Analysis		
	Sustaining Improvement – Additional Activities for Consideration by Health-Care Facilities	Data Summary Report Framework		



Template Action Plan



Tools for System Change

Ward Infrastructure Survey

Alcohol-based Handrub Planning and Costing Tool

Guide to Local Production: WHO-recommended Handrub Formulations

Soap / Handrub Consumption Survey

Protocol for Evaluation of Tolerability and Acceptability of Alcohol-based Handrub in Use or Planned to be Introduced: Method 1

Protocol for Evaluation and Comparison of Tolerability and Acceptability of Different Alcohol-based Handrubs: Method 2





Template Action Plan

Tools for Training / Education

Slides for the Hand Hygiene Co-ordinator

Slides for Education Sessions for Trainers, Observers and Health-Care Workers

Hand Hygiene Training Films

Slides Accompanying the Training Films

Hand Hygiene Technical Reference Manual

Observation Form

Hand Hygiene Why, How and When Brochure

Glove Use Information Leaflet

Your 5 Moments for Hand Hygiene Poster

Frequently Asked Questions

Key Scientific Publications

Sustaining Improvement – Additional Activities for Consideration by Health-Care Facilities



Template Action Plan

Tools for Evaluation and Feedback

Hand Hygiene Technical Reference Manual

Observation Tools:
Observation Form
and Compliance
Calculation Form

Ward Infrastructure
Survey

Soap / Handrub
Consumption Survey

Perception Survey for
Health-Care Workers

Perception Survey for
Senior Managers

Hand Hygiene
Knowledge
Questionnaire for
Health-Care Workers

Protocol for Evaluation
of Tolerability and
Acceptability of
Alcohol-based Handrub
in Use or Planned to be
Introduced: Method 1

Protocol for Evaluation
and Comparison
of Tolerability and
Acceptability of Different
Alcohol-based
Handrubs: Method 2

Data Entry
Analysis Tool

Instructions for Data
Entry and Analysis

Data Summary
Report Framework



Template Action Plan

Tools for Reminders in the Workplace

Your 5 Moments for
Hand Hygiene Poster

How to Handrub
Poster

How to Handwash
Poster

Hand Hygiene:
When and How Leaflet

SAVE LIVES:
Clean **Your** Hands
Screensaver



Template Action Plan

Tools for Institutional Safety Climate

Template Letter to
Advocate Hand Hygiene
to Managers

Template Letter to
Communicate Hand
Hygiene Initiatives to
Managers

Guidance on Engaging
Patients and Patient
Organizations in Hand
Hygiene Initiatives

Sustaining Improvement
– Additional Activities
for Consideration by
Health-Care Facilities

SAVE LIVES:
Clean **Your** Hands
Promotional DVD



The Step-wise Approach

- **Five steps to be undertaken sequentially:**
 - Step 1:** facility preparedness – readiness for action
 - Step 2:** baseline evaluation – establishing knowledge of the current situation
 - Step 3:** implementation – introducing the improvement activities
 - Step 4:** follow-up evaluation – evaluating the implementation impact
 - Step 5:** ongoing planning and review cycle – developing a plan for the next 5 years (minimum)

The Five Components of the WHO multimodal hand hygiene improvement strategy

1a. System change –
alcohol-based handrub at point of care



1b. System change – access to safe,
continuous water supply, soap and towels



2. Training and education



3. Evaluation and feedback



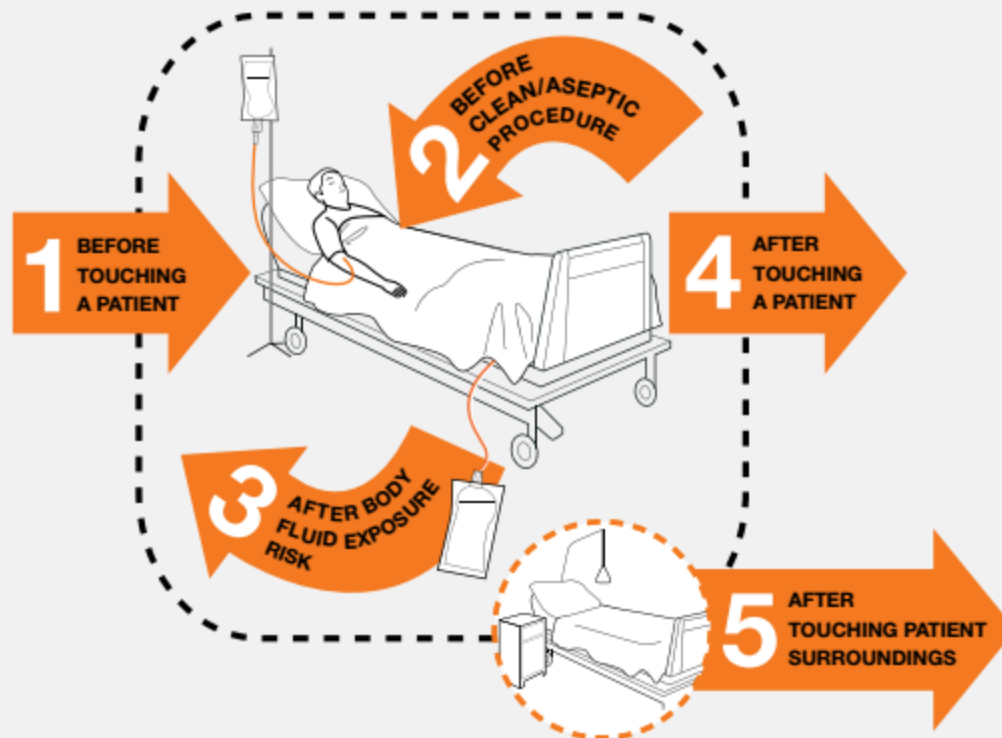
4. Reminders in the workplace



5. Institutional safety climate



The five moments for hand hygiene in health care





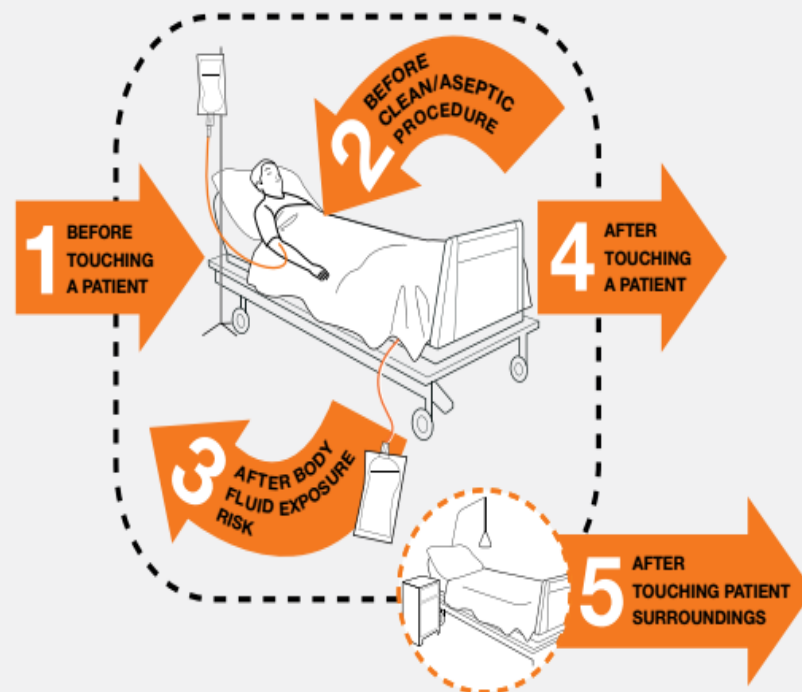
The step-wise approach



The Five Components of the WHO multimodal hand hygiene improvement strategy



The five moments for hand hygiene in health care



The step-wise approach





The Main Objectives to be Achieved in Each Step

- **Step 1: ensuring the preparedness of the institution.**
 - This includes obtaining the necessary resources (both human and financial),
 - putting infrastructure in place,
 - identifying key leadership to head the program including a coordinator and his/her deputy.
 - Proper planning must be done to map out a clear strategy for the entire program.



The Main Objectives to be Achieved in Each Step

- **Step 2: conducting baseline evaluation of**
 - hand hygiene practice,
 - perception,
 - knowledge and
 - the infrastructures available.



The Main Objectives to be Achieved in Each Step

- **Step 3:** implementing the improvement program.
 - Ensuring the availability of an alcohol-based handrub at the point of care is vitally important, as is
 - conducting staff education and training and
 - displaying reminders in the workplace.
 - Well-publicized events involving endorsement and/or signatures of commitment from leaders and individual health-care workers will generate great participation.



The Main Objectives to be Achieved in Each Step

- **Step 4:** conducting follow-up evaluation to assess the effectiveness of the program.
- **Step 5:** developing an ongoing action plan and review cycle, while ensuring long-term sustainability.



II.1. SYSTEM CHANGE

- **II.1.1. System change – definitions and overview**
Availability of tap water (ideally drinkable) for handwashing.
 - Where tap water is not available, water “flowing” from a pre-filled container with a tap is preferred;
 - Where running water is available, the possibility of accessing it without needing to touch the tap with soiled hands is preferable.
 - When bar soap is used, small bars of soap in racks that facilitate drainage should be made available;
 - Careful hand drying with a single-use towel (paper or cloth) is also important.



II.1. SYSTEM CHANGE

- **II.1.1. System change – definitions and overview**

The best type of dispensers will need to be procured, ideally from the local market, and advice on the safe re-use of dispensers should be followed.

- Dispensers should be available at the point of care, be well-functioning and reliably and permanently contain alcohol-based handrub.
- They should also be safely mounted, placed and stored.
- Pocket bottles should be considered, especially when alcohol ingestion by patients is a potential risk.



II.1. SYSTEM CHANGE

- **II.1.1. System change – definitions and overview**

System change is a particularly important priority for healthcare facilities starting on their journey of hand hygiene improvement activities.

- ✓ It is also essential that health-care facilities **revisit the necessary infrastructure on a regular basis** to ensure handwashing and hand hygiene facilities live up to a high standard on an ongoing basis.



II.1. SYSTEM CHANGE

- ✓ It is essential that the health-care facility's infrastructure be assessed at an early stage in the hand hygiene improvement journey.
- ✓ Support and commitment from key senior managers is crucial to this.
- ✓ It is also a priority that an action plan to ensure system change is prepared and implemented, involving all of those key health-care facility staff who will be depended upon to make system change happen.



II.1. SYSTEM CHANGE

- **II.1.2. Tools for system change –
Tool Descriptions**

Tools for System Change	
Ward Infrastructure Survey	Protocol for Evaluation of Tolerability and Acceptability of Alcohol-based Handrub in Use or Planned to be Introduced: Method 1
Alcohol-based Handrub Planning and Costing Tool	Protocol for Evaluation and Comparison of Tolerability and Acceptability of Different Alcohol-based Handrubs: Method 2
Guide to Local Production: WHO-recommended Handrub Formulations	
Soap / Handrub Consumption Survey	



World Hand
Hygiene Day

Ward Infrastructure Survey

Ward Infrastructure Survey	
What	A survey tool that collects data about existing infrastructures and resources
Why	<ul style="list-style-type: none"> • Because it is important to collect information about existing infrastructures and resources in place in each clinical setting as a baseline. This will also enable follow-up measurement of potential system changes following implementation; • lack of access to sinks, running water and alcohol-based handrub is likely to contribute to lower rates of compliance; • finding out details about the ward infrastructure is useful in terms of explaining current hand hygiene compliance rates. This will also help identify priorities for system change and guide the ongoing preparation and revision of action plans.
Where	In every clinical setting where an assessment of handwashing and handrub facilities and resources must be conducted in the context of the hand hygiene improvement strategy implementation.
When	<ul style="list-style-type: none"> • During the time allocated for baseline evaluation of the existing infrastructure and equipment/resources for hand hygiene; • at key specified follow-up intervals when an update on this information is necessary to maintain the required hand hygiene infrastructures. Even if the facility already conducts a hospital-wide audit of infection control and hand hygiene practices, this should be considered in the action plan for addressing system change; • usually during step 1 or 2 and 4 (see sections III.2.1, III.2.2, III.2.4).
Who	The survey should be completed by the hand hygiene programme co-ordinator or an identified and informed health-care worker within the clinical setting (e.g. a senior nurse who can complete the survey while walking around the ward).
How	Completion of the form by the identified person should be undertaken by answering questions to obtain the relevant information while walking round the setting. Forms should then be collated by the identified co-ordinator.

Key Actions

- **Example:** health-care facilities where the alcohol-based handrub is already available but where system change goals have not been fully achieved according to the WHO recommendations.

Key Actions: Implement actions according to this assessment in order to make the products permanently available at each point of care.

For example, make sure that the alcohol-based handrub dispensers are located precisely at each point of care (e.g. **at each bedside and not at the room entrance**).

If necessary, increase the number of dispensers and also provide different types of dispensers (e.g. wall-mounted dispensers, pocket bottles, dispensers affixed to the furniture).

If possible, ensure that the sink/patient-bed ratio is well above 1:10.



II.2.1. Training / Education – Definitions and Overview

- All health-care workers require full training / education on the importance of hand hygiene, the “My 5 Moments for Hand Hygiene” approach and the correct procedures for hand washing and hand rubbing.
By disseminating *clear messages, not open to personal interpretation*, with a user-centred standardized approach, such training / education aims to induce behavioural and cultural change and ensure that competence is deep-rooted and maintained among all staff in relation to hand hygiene.



II.2.1. Training / Education – Definitions and Overview

- In the context of a hand hygiene improvement program, the targets for training at different levels are trainers, observers and health-care workers.
- A top-down approach to training is recommended whereby the hand hygiene program co-ordinator, together with other key players at the facility (senior managers or a committee if one exists), will identify the individuals capable of fulfilling the role of trainers and observers.



I.2.1. Training / Education – Definitions and Overview

- **Basic educational sessions for trainers, observers and health-care workers should focus on:**
 - background to WHO Patient Safety and the First Global Patient Safety Challenge;
 - definition, impact and burden of HCAI;
 - major patterns of transmission of health care-associated pathogens, with a particular focus on hand transmission;
 - prevention of HCAI and the critical role of hand hygiene;
 - WHO Guidelines on Hand Hygiene in Health Care and their implementation strategy and tools, including why, when and how to perform hand hygiene in health care.



II.2.2. Tools for training / education – Tool Descriptions

Slides for the Hand Hygiene Co-ordinator	Slides for Education Sessions for Trainers, Observers and Health-Care Workers	
Hand Hygiene Training Films	Slides Accompanying the Training Films	
Hand Hygiene Technical Reference Manual	Hand Hygiene Why, How and When Brochure	Glove Use Information Leaflet



Frequently Asked
Questions

Key Scientific
Publications

Sustaining
Improvement –
Additional Activities
for Consideration by
Health-care Facilities

Observation Tools

Your 5 Moments for
Hand Hygiene Poster

Slides For The H.H Co-ordinator

Slides for the Hand Hygiene Co-ordinator	
What	<p>A PowerPoint slide deck entitled 'Health Care Associated Infection and Hand Hygiene Improvement' to assist hand hygiene leads (especially programme co-ordinators) in explaining the need for hand hygiene to senior managers and other key players. In particular:</p> <ul style="list-style-type: none">• to advocate standards of hand hygiene;• to explain the importance of the "My 5 Moments for Hand Hygiene" approach;• to outline the facility's action plan to improve hand hygiene.
Why	<p>Because a representative responsible for, or interested in, planning initiatives to improve hand hygiene will need to communicate the importance of hand hygiene and the planned activities to others.</p>
Where	<p>At meetings.</p>
When	<p>Prior to initiating or implementing hand hygiene improvement strategies (step 1, section III.2.1).</p>
Who	<p>The tool should be used by:</p> <ul style="list-style-type: none">• The representative responsible for planning initiatives to improve hand hygiene (the hand hygiene programme co-ordinator); and• parties interested in catalysing initiatives to improve hand hygiene at health-care facility to communicate the importance of hand hygiene with senior managers and others.
How	<p>A slide presentation by the hand hygiene co-ordinator to others at the facility using visual aids or paper copies, detailing the slide deck template and other local information.</p>

Slides For The H.H Co-ordinator

Slides for the Hand Hygiene Co-ordinator	
What	<p>A PowerPoint slide deck entitled 'Health Care Associated Infection and Hand Hygiene Improvement' to assist hand hygiene leads (especially programme co-ordinators) in explaining the need for hand hygiene to senior managers and other key players. In particular:</p> <ul style="list-style-type: none">• to advocate standards of hand hygiene;• to explain the importance of the "My 5 Moments for Hand Hygiene" approach;• to outline the facility's action plan to improve hand hygiene.



How

- A slide *presentation in a single training session* of approximately **2 hours** (excluding the part for observers which requires at least one **additional hour**) or
- *Split into multiple shorter sessions: films are used during or following the education session.*



II.3. EVALUATION AND FEEDBACK

- **II.3.1. Evaluation and feedback – definitions and overview**

The WHO multimodal hand hygiene improvement strategy recommends monitoring and evaluation of the following indicators:

- hand hygiene compliance through direct observation;
- ward infrastructure for hand hygiene;
- health-care worker knowledge on HCAI and hand hygiene;
- health-care worker perception of HCAI and hand hygiene;
- soap and alcohol-based handrub consumption.



3.1. Evaluation and feedback – Definitions and Overview

- Conducting a baseline evaluation
- Following the baseline evaluation, the surveys carried out using the tools described below should be repeated post implementation
- It is needed in order to collect information that realistically reflects current hand hygiene practices, knowledge, perception and infrastructure.



II.3.1. Evaluation and feedback – Definitions and Overview

- In facilities where hand hygiene promotion is permanently in place, following the initial implementation period, the WHO multimodal hand hygiene improvement strategy requires at least annual cycles of evaluation in order to achieve sustainability.

II.3.1. Evaluation and feedback – Definitions and Overview

- Data entry and analysis are an important part of the overall evaluation.
- If the facility does not have an epidemiology/statistics unit where the data can be managed, it will be necessary to identify a person to whom this task can be allocated.
- The appointed person should be able to use basic computer programs (e.g. Microsoft Office) and ideally have some basic statistical analysis / epidemiology skills.

Key Success Indicators

- Increase in hand hygiene compliance
- Improvement in infection control / hand hygiene infrastructures
- Increase in usage of hand hygiene products
- Improved perception of hand hygiene
- Improved knowledge of hand hygiene



Tools for Evaluation and Feedback – Tool Descriptions

Hand Hygiene
Technical Reference
Manual

Observation Tools:
Observation Forms
and Compliance
Calculation Forms

Ward Infrastructure
Survey

Soap / Handrub
Consumption Survey

Perception Survey
for Health-Care
Workers

Perception Survey for
Senior Managers

II.3.2. Tools for Evaluation and Feedback – Tool Descriptions



Hand Hygiene
Knowledge
Questionnaire for
Health-Care Workers

Protocol for
Evaluation of
Tolerability and
Acceptability of
Alcohol-based
Handrub in Use
or Planned to be
Introduced: Method 1

Protocol for
Evaluation and
Comparison of
Tolerability and
Acceptability of
Different Alcohol-
based Handrubs:
Method 2

II.3.2. Tools for Evaluation and Feedback – Tool Descriptions



Data Entry and
Analysis Tool

Instructions for Data
Entry and Analysis

Data Summary
Report Framework



Hand Hygiene Observation Tools

What:

- An Observation Form
- Two Compliance Calculation Forms
(basic and optional)
- The Hand Hygiene Technical Reference Manual
- The Hand Hygiene Why, How and When Brochure

Hand Hygiene Observation Tools

- Who
- How:
- The Hand Hygiene Technical Reference Manual
- ✓ In general, between 150 and 200 opportunities for hand hygiene should be observed in each surveyed unit (department, service or ward).



Perception Survey for HCWs

- What
- Why
- Where
- When
- Who
- How





Perception Survey for HCWs, How

- Anonymous distribution of the questionnaire;
- Ideally through random distribution;
- If randomization is not feasible:
 - *if only a few wards are involved*, the questionnaire should be distributed to all health-care workers within a 1-week period and the completed questionnaires should be collected 4–5 days later;



Perception Survey for HCWs, How

- If randomization is not feasible:
 - *if the program involves many wards or the entire health-care facility*, the questionnaire should be distributed to all health-care workers present at work on one specific day;
 - it will therefore be handed out in the morning and collected at the end of that same day.



H.H Knowledge Questionnaire for HCWs

When: The questionnaire can be distributed:

– *for the baseline assessment*

- either during the period immediately before starting any educational activity and intervention; or
- at the beginning of each training session (i.e. during the beginning of the implementation period).

– *for the follow-up assessment*

- either at the beginning of each training session; or
- during the follow-up evaluation period (step 4)



Perception Survey For Senior Managers

When:

- During the facility preparedness phase (step 1,) or during the baseline period
- During the follow-up period (step 4) to assess the impact of implementation on senior managers' perception.

Perception Survey For Senior Managers

How:

- Anonymous distribution of the questionnaire.
- The completed questionnaires should be collected 4–5 days later.



II.3.3.

Using the Tools for Evaluation & Feedback

Tool	When to be used
Perception Survey for Health-Care Workers	at least at baseline
Ward Infrastructure Survey	at baseline and follow-up
Soap / Handrub Consumption Survey	monthly or every 3–4 months (ongoing)
Observation Form	at baseline and follow-up



Using the Tools for Evaluation & Feedback

- Health-care facilities where a hand hygiene improvement program is already established.
- The frequency of conducting these surveys depends on local priorities. Observations of hand hygiene practices should be carried out at least annually, but ideally monthly.

Hand hygiene product consumption, especially alcohol-based handrub, should be recorded monthly or at time intervals that allow annual trend calculations (e.g. every 3–4 months).

For a sustained improvement, a minimum 5-year cycle of review and action planning is recommended.



Sharing lessons learned with WHO Patient Safety

- Contact details and an area for posting case studies on best practice can be found on WHO Patient Safety's website at
www.who.int/gpsc/en/

Tools for Reminders in the Workplace

- Tool Descriptions



Your 5 Moments
for Hand Hygiene
Poster

How to
Handrub
Poster

How to
Handwash
Poster

Hand Hygiene:
When and How
Leaflet

SAVE LIVES:
Clean **Your** Hands
Screensaver

- 1- Poster**
- 2- Leaflet**
- 3- Screensaver**



11.4. REMINDERS IN THE WORKPLACE

- Key tools to prompt and remind HCWs about the importance of hand hygiene and about the appropriate indications and procedures for performing it.
- Also means of informing patients and their visitors of the standard of care that they should expect from their health-care workers with respect to hand hygiene.



4. REMINDERS IN THE WORKPLACE

- *Posters are the most common type of reminder.*
- The implementation toolkit *includes three WHO-branded standard posters* to visualize the “My 5 Moments for Hand Hygiene” approach and the correct procedure to perform handrubbing and handwashing.



4. REMINDERS IN THE WORKPLACE

- ***Other types of reminders*** are pocket leaflets that individual health-care workers can carry in their pockets, stickers posted at the point of care, special labels including prompting slogans stuck on alcohol-based handrub dispensers and gadgets such as badges with the hand hygiene logo.



4. REMINDERS IN THE WORKPLACE

- Reminders in the workplace should be a feature of the action plans for facilities implementing hand hygiene improvement programs at all levels.
- Reminders should be used and displayed in all clinical settings of the health-care facility during the implementation phase (step 3, section III.2.3) and **should be updated or refreshed regularly.**
- Reminders **can be directed** at **health-care workers, patients and visitors.**



4. REMINDERS IN THE WORKPLACE

- ***Local adaptation*** of the WHO reminders and **development of new ones** visualizing the WHO recommendations on hand hygiene certainly facilitates local uptake of the strategy by using the best terminology and images according to the culture.
- Health-care workers will also have access to local hand hygiene guidelines or standard operating procedures to inform and remind them of what good hand hygiene practice means at their place of work.



5. INSTITUTIONAL SAFETY CLIMATE

- **Definitions and overview**

The institutional safety climate refers to creating an environment and the perceptions that facilitate awareness-raising about patient safety issues while guaranteeing consideration of hand hygiene improvement as a high priority at all levels, including

- active participation at both the institutional and individual levels;
- awareness of individual and institutional capacity to change and improve (self-efficacy); and
- partnership with patients and patient organizations.



Institutional Safety Climate – Definitions and Overview

- **At the institutional level**, this component of the hand hygiene improvement strategy represents the foundation for implementing and sustaining the hand hygiene improvement program which must be embedded in a climate that understands and prioritizes basic safety issues.



Institutional Safety Climate – Definitions and Overview

- **At the individual level**, this component of the strategy is important with respect to advocacy of hand hygiene by all health-care workers as a priority and for their motivation to practice optimal hand hygiene as an act showing their commitment to do no harm to patients.



Institutional Safety Climate – Definitions and Overview

- Through the creation of an institutional safety climate, both the institution and each health-care worker become aware of their capacity to make a change and catalyse improvement across all indicators.



Institutional Safety Climate – Definitions and Overview

- The creation of an institutional safety climate must be a priority for all hand hygiene promotion
- Is essential during any implementation phase of the program.

Step 1, facility preparedness phase:

Decision-makers and influential people are engaged in the planning process at the earliest possible stage and that this engagement continues during implementation and beyond.



Institutional Safety Climate – Definitions and Overview

- **On a continuum of progress**, other areas of patient safety should be simultaneously or subsequently explored, and the safety climate must become deeply-rooted in the institutional tradition and approach. This requires continuous progress in the development of stable systems for adverse event detection and quality assessment, hand hygiene being one of the key indicators.



Institutional Safety Climate – Definitions and Overview

- Influential health-care workers and individuals can contribute greatly to the successful development of a safety climate:
- Professionals belonging to the facility,
External organizations,
Non-government organizations
and professional bodies that can give advice on effective strategies to improve patient safety.



Institutional Safety Climate – Definitions and Overview

- In settings where hand hygiene promotion is very advanced, senior managers and leaders will have repeatedly demonstrated full commitment to hand hygiene by long-term allocation of resources and will be proud of the excellent standards achieved at their facility.

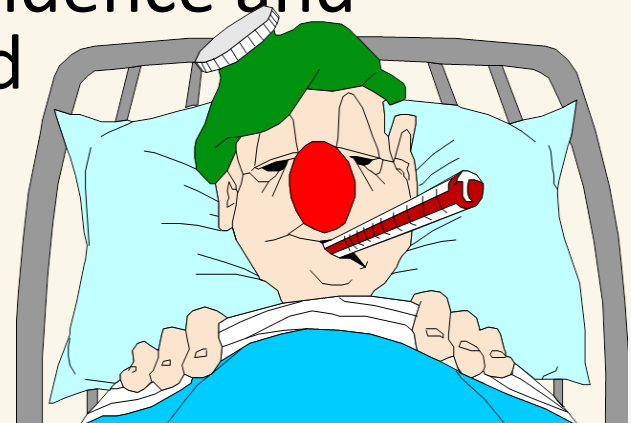
**Hand hygiene will be used as a
quality indicator
on a regular basis.**





Institutional Safety Climate – Definitions and Overview

- Particularly but not only in these settings, **patients will be involved in the creation of an institutional safety climate.**
- **Patient awareness and understanding of hand hygiene.**
- **Performing correct hand hygiene in view of the patient** can promote patient confidence and partnership between patients and HCWs to make care safer.



Tools for Institutional Safety Climate – Tool Descriptions



Template Letter to
Communicate Hand
hygiene Initiatives
to Managers

Template Letter
to Advocate
Hand Hygiene
to Managers

Guidance on
Engaging Patients
and Patient

Sustaining
Improvement –
Additional Activities
for Consideration
by Health-Care
Facilities

SAVE LIVES:
Clean **Your** Hands
Promotional Video



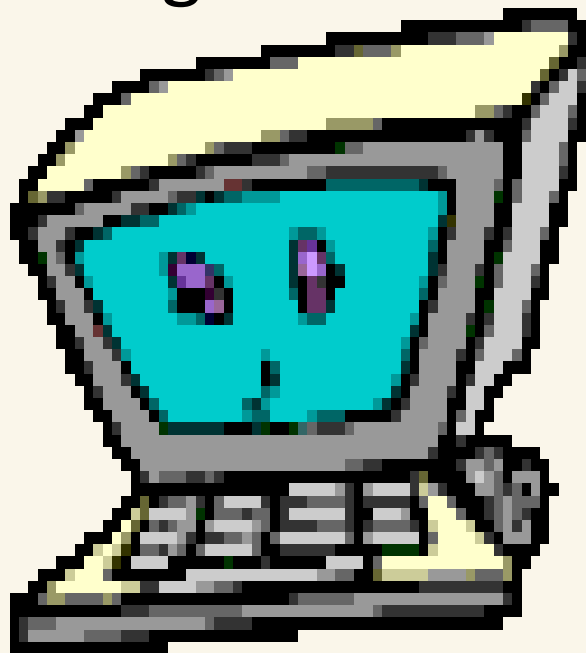
SAVE LIVES: Clean Your Hands Promotional DVD

- **When:** At the opening and closure of meetings in which a clear message is required regarding the importance of hand hygiene
(e.g. education sessions, training sessions, team meetings, advocacy meetings, staff briefings).



SAVE LIVES: Clean Your Hands Promotional DVD

- **How:** *Show the short film* to health-care workers or the public before providing more details on hand hygiene initiatives to provide context and a powerful message about hand hygiene in health care.





Institutional Safety Climate, Tools

Example 1: health-care facilities embarking on a new hand hygiene improvement program.

➤ *Key actions:*

- *Identify a co-ordinator*, where possible, a dedicated hand hygiene team/committee.
- *Prepare for publicizing* the hand hygiene improvement initiatives across the facility.
- *Identify internal stakeholders*, senior managers, key individuals or groups who will need to be aware of the hand hygiene initiatives implemented at the health-care facility.



Institutional Safety Climate, Tools

Example 1: health-care facilities embarking on a new hand hygiene improvement program.

➤ *Key actions:*

- *Use template letters to seek the support of senior managers and communicate with them and health-care workers.*
- *In particular, obtain finance, staff resource, support to organize education activities from senior managers.*
- *Identify at least one member of staff on each ward, or in each department (senior doctors and/or chief nurses) to be fully informed, at the correct time, of the initiation of a hand hygiene improvement strategy and, if possible, to be trained in general infection control.*



Institutional Safety Climate, Tools

Example 1: health-care facilities embarking on a new hand hygiene improvement program.

➤ *Key actions:*

- *Make the WHO Guidelines on Hand Hygiene in Health Care or their executive summary available in clinical settings.*
- *Consider a timeframe for initiating future discussions with patient organizations or engaging patients.*
- *Start by placing WHO posters in key places to enhance awareness.*



Institutional Safety Climate, Tools

Example 2: health-care facilities where the hand hygiene improvement program is already well established.

➤ *Key actions:*

- *Prepare a long term plan* featuring key actions that will ensure that the institutional safety climate fully reflects hand hygiene.
- *Establish hand hygiene on the list of indicators* for assessment of *quality* of health care delivered at the facility.
- *Set annual goals* for hand hygiene improvement (e.g. improving hand hygiene compliance above certain rates, according to the local situation).



Institutional Safety Climate, Tools

Example 2: health-care facilities where the hand hygiene improvement program is already well established.

➤ *Key actions:*

- *Establish reward schemes* for health-care workers for optimal compliance with the “My 5 Moments for Hand Hygiene” approach or protocol for hand hygiene based on the WHO Guidelines for Hand Hygiene in Health Care.
- *Review any existing activity* involving *patients / patient organizations* in health-care improvement and make a plan for hand hygiene improvement.



Institutional Safety Climate, Tools

Example 2: health-care facilities where the hand hygiene improvement program is already well established.

➤ *Key actions:*

- *Implement activities involving patients* in hand hygiene promotion. This could include the following:
 - *patient surveys* to gain their perspective on the best way to participate in hand hygiene promotion;
 - development and dissemination of information *leaflets / posters for patients* to inform them of the hand hygiene initiatives and how they can encourage and support them;



Institutional Safety Climate, Tools

Example 2: health-care facilities where the hand hygiene improvement program is already well established.

➤ *Key actions:*

- *Implement activities involving patients* in hand hygiene promotion. This could include the following:
 - *initiatives (stands at the facility entry, activities at ward level)* to catalyse patient advocacy for hand hygiene promotion;



Institutional Safety Climate, Tools

Example 2: health-care facilities where the hand hygiene improvement program is already well established.

➤ *Key actions:*

- *Implement activities involving patients* in hand hygiene promotion. This could include the following:
 - *education of patients* to identify the moments when health-care workers should perform hand hygiene;
 - *collaboration with patient organizations* to assist with patient advocacy or education, or to lobby for funding or improved facilities.



Accessing the Tools

www.who.int/gpsc/en/



PART III GUIDE TO IMPLEMENTATION



**The five-Step Approach
To H.H/IPC Improvement**



Guide To Implementation

Part III:

- Provides the following additional elements to help the implementation of the WHO multimodal hand hygiene improvement strategy:
 - A template action plan listing what actions should be undertaken in order to achieve the implementation of each component of the strategy in facilities at both basic and advanced level of progress in hand hygiene promotion; and
 - A step-wise approach as a model for implementation in health-care facilities newly committing to hand hygiene improvement.



World Hand
Hygiene Day

1. PREPARING AN ACTION PLAN



Overall Template Action Plan

Action	Lead person	Time frame (start and end dates)	Budget (if applicable)	Progress (include review and completion dates)
General				
Access the WHO Guidelines on Hand Hygiene in Health Care on the WHO Patient Safety website				
Adapt WHO Guidelines for local applicability while ensuring consistency with recommendations				



Overall Template Action Plan

Action	Lead Person	Time frame (start and end dates)	Budget (if applicable)	Progress (include review and completion dates)
General				
System change				
Training/ Education				
Evaluation and feedback				
Reminders in the workplace				
Institutional safety climate				



Action, General

- Access the WHO Guidelines on Hand Hygiene in Health Care on the WHO Patient Safety website
- Adapt WHO Guidelines for local applicability while ensuring consistency with recommendations
- Access the implementation toolkit of the WHO multimodal hand hygiene improvement strategy on the WHO Patient Safety website
- Identify a co-ordinator for the hand hygiene improvement program and a deputy co-ordinator



Action, General

- Identify and establish a team/committee to support the hand hygiene co-ordinator
- Identify any prior initiatives or plans on hand hygiene improvement / infection control within the facility
- Contact the CEO/director and senior managers of the hospital to discuss actions and activities to be implemented in line with the current progress of hand hygiene/ infection control promotion at facility level and with the WHO Guidelines

*CEO= Chief Executive Officer

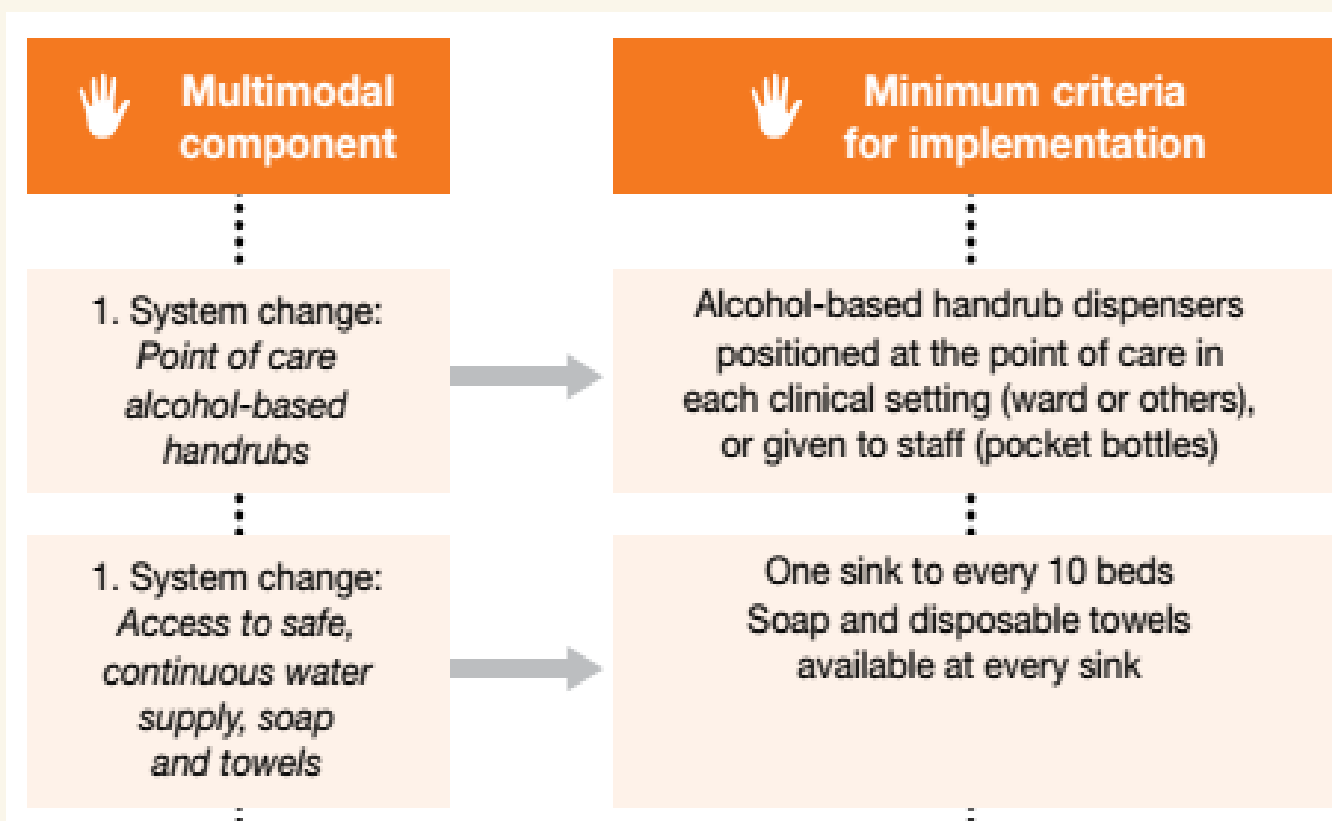


Action, General

- Agree on the scope and extent of the activities to be acted on
- Match required activity to available human resources
- If policies, standards, protocols, standard operating procedures, care bundles, etc are currently used in the facility, ensure one is focused on hand hygiene and plan for dissemination to all clinical settings/ health-care workers

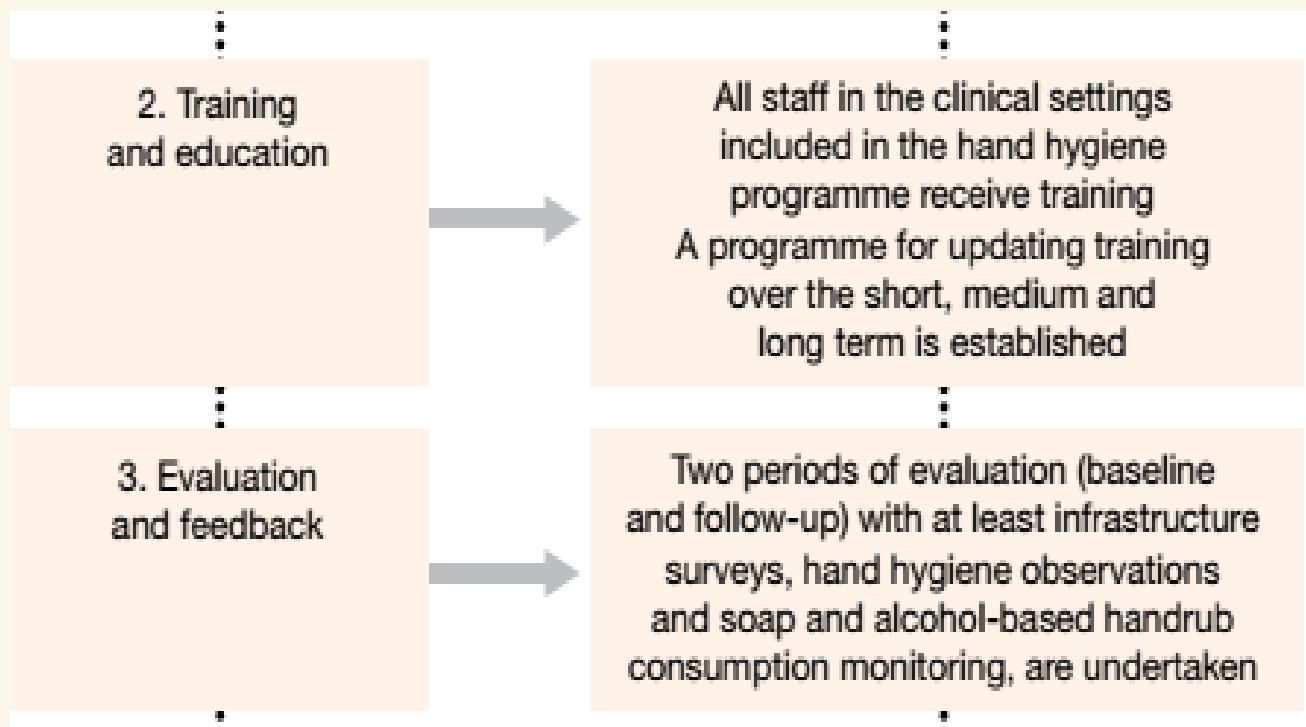


Minimum Criteria for Implementation of the WHO Multimodal Hand Hygiene Improvement Strategy





Minimum Criteria for Implementation of the WHO Multimodal Hand Hygiene Improvement Strategy





Minimum Criteria for Implementation of the WHO Multimodal Hand Hygiene Improvement Strategy

4. Reminders in
the workplace

“How to” and “Your 5 Moments for
Hand Hygiene” posters displayed in
clinical settings included in the hand
hygiene programme
(e.g. patients rooms; staff areas;
out-patient/ambulatory departments)

5. Institutional
safety climate

The chief executive officer, director,
senior managers and other leaders all
make a visible commitment to support
hand hygiene improvement
(e.g. announcements and/or
formal letters to staff).



Step 1: Facility Preparedness – Readiness For Action

- This step is meant to last 2 months on average.

Facilities are recommended to consider implementing initially in wards where motivation and interest are high and the health gain is likely to be substantial and subsequently have an impact on others.

it may be necessary to perform an economic analysis and formalise a financial plan at this early stage



Step 1: Facility Preparedness – Readiness For Action

- In summary, step 1 should include:

– convincing high level senior managers and key professionals at the facility

– identifying the key people
to be involved in the program
implementation

- Meet regularly (at least monthly at the beginning of the program, then less frequently).



Step 1: Facility Preparedness – Readiness For Action

- In summary, step 1 should include:
 - Establishing a plan to achieve the implementation of all the strategy components or of those that are considered to be key features at the facility level (especially for settings where hand hygiene promotion is already in place);
 - Deciding about the scope of and the extent of the implementation (either focus on a limited number of areas or facility-wide);



Step 1: Facility Preparedness – Readiness For Action

- In summary, step 1 should include:
 - Creating the conditions to make system change happen (e.g. actions plans to make the alcohol-based handrub available and/or ensure its appropriate location at the point of care);
 - Identifying the trainers and the observers;



Step 1: Facility Preparedness – Readiness For Action

- In summary, step 1 should include:
 - Building the necessary knowledge and expertise (train the trainers and the observers) to carry out activities related to the strategy components 2 (education) and 3 (evaluation) planned to be implemented in steps 2 (baseline evaluation), 3 (implementation) and 4 (follow-up evaluation);



Step 1: Facility Preparedness – Readiness For Action

- In summary, step 1 should include:
 - Reviewing all tools for evaluation and feedback, assign tasks and make plan for carrying out the surveys in step 2;
 - Developing a plan on how and to whom information concerning the action plan and improvement will be communicated;



Step 1: Facility Preparedness – Readiness For Action

- In summary, step 1 should include:
 - Preparing the necessary resources and supports to implement all the strategy components, especially 2 (education) and 4 (reminders); and
 - Identifying staff in charge of making data entry and analysis.

Possible Methods of Communication



- Word of mouth
- Electronic (email) if available
- Newsletter or similar bulletin
- Formal and informal training
- Posters / reminders
- Presentations in medical and nursing staff meetings
- CEO address to health-care staff

CEO= Chief Executive Officer



Human Resources required/key Players Involved In

Step 1:

- 
- Hand hygiene program co-ordinator
 - Deputy co-ordinator
 - Trainers
 - Observers
 - Senior managers/health-care facility administrators
 - Infection prevention and control professionals
 - Head nurses, chief doctors, leads from other disciplines
 - Central purchasing department staff, pharmacist
 - Hand hygiene committee/team (including the above key players, when appropriate)
- 



Your Action Checks – Step 1

Have the following actions occurred?	Yes/No
Coordinator appointed	
Practicalities of implementing the multimodal strategy assessed	
Key individuals and groups identified and support secured (team/committee established)	
Roles to ensure action plan completion assigned	
Action plan agreed among all key players including senior managers	
Agreement reached on hospital-wide versus specific wards-only implementation	



Your Action Checks – Step 1

Have the following actions occurred?	Yes/No
Letters to advocate and communicate about hand hygiene sent to senior managers	
Budget analysis undertaken	
Necessary funds procured to make alcohol-based handrub available or improve its availability at the point of care as well as other resources including human-resources	
Decision made whether to purchase handrubs commercially or manufacture in-house	
Trainers and observers identified	
Training of trainers and observers undertaken	



Step 2: Baseline Evaluation – Establishing Knowledge of the Current Situation

- ✓ Step 2 is meant to be focused mainly on conducting baseline evaluation of
- ✓ hand *hygiene practice*,
- ✓ perception,
- ✓ knowledge and
- ✓ the infrastructures available.

This step is meant to last 3 months on average.



Step 2: Baseline Evaluation

Ward infrastructure survey (baseline)	Week 1-2				
Senior executive managers perception survey (baseline)		Week 3			
Health-care workers perception survey (baseline)			Week 4-5		
Hand hygiene observations (baseline)				Week 6-8	
Soap/handrub consumption survey (baseline)					End of Step 2; then monthly or every 3-4 months
Health-care workers knowledge survey (baseline)					Last week or immediately before education session



Step 2: Baseline Evaluation – Establishing Knowledge of the Current Situation

- The indicated time lines are only approximate, and they will depend on the scope of implementation at the facility level.



Step 2

- In summary, step 2 should include:
 - conducting the infrastructure, perception and knowledge surveys and collecting hand hygiene observation and soap/handrub consumption data according to the plans;
 - conducting the tolerability and acceptability survey if the alcohol-based handrub was newly introduced or to compare different products;
 - performing data entry and analysis as soon as each survey is completed;



Step 2

- In summary, step 2 should include:
 - evaluating the results and making sure that they are reliable;
 - disseminating the results among key players in the hand hygiene improvement program;
 - evaluating how to use the results during step 3 (e.g. how to present data during educational sessions, what specific actions should be made to improve infrastructure);



Step 2

- In summary, step 2 should include:
 - evaluating HCAI rates related to the last 6 months/1 year if a local surveillance system is in place or conducting a prevalence survey in the clinical settings included in the hand hygiene improvement program;
 - concluding any training for the trainers;



Step 2

- In summary, step 2 should include:
 - preparing additional training material, including the baseline evaluation data;
 - reviewing the training material and making precise plans for the educational sessions for health-care workers;
 - getting ready for any promotion activity to be launched during step 3;



Step 2

- In summary, step 2 should include:
 - finalizing the process of procuring or locally producing the alcohol-based handrub; and
 - getting ready for any additional system change (e.g. sink installation, soap/disposable towels procurement, increase and/or change of alcohol-based handrub dispensers).

Human Resources Required/key Players Involved In Step 2

- Hand hygiene program co-ordinator
- Deputy co-ordinator
- Trainers
- Observers
- Central purchasing department staff, pharmacist
- Epidemiologist, data manager
- Hand hygiene committee/team (including the above key players, when appropriate)





Your Action Checks – Step 2

Action	Yes/No
Ward infrastructure survey undertaken	
Senior managers perception survey undertaken	
Health-care workers perception survey undertaken	
Consumption data collected	
Hand hygiene observations completed	
Health-care workers knowledge survey undertaken	
Data input accomplished	



Your Action Checks – Step 2

Action	Yes/No
Data analysed and interpreted	
Availability of alcohol-based handrub secured	
Actions taken for any other planned system changes	
Alcohol-based handrub tolerability and acceptability surveys undertaken	
Training of the trainers concluded	
Educational material ready	



Step 3: Implementation – Introducing the Improvement Activities

- Activities that take place in step 3 are related mainly to plans and actions to achieve the objectives of the strategy components: 1 (system change), 2 (education), 4 (reminders in the work place) and 5 (institutional safety climate). However, some evaluation activities are also meant to take place.
- This step is meant to last 3 months on average.



Step 3: Implementation – Introducing the Improvement Activities

- In summary, step 3 should include:
 - Holding a well-publicized official event launching the promotional activities and involving endorsement and/or symbolic signatures of commitment from leaders and individual health-care workers;
 - Distributing the alcohol-based handrub at the point of care in all clinical settings involved in the program;
 - Conducting the tolerability and acceptability surveys if not undertaken in step 2.



Step 3: Implementation – Introducing the Improvement Activities

- Displaying posters and distributing other reminders at the point of care and to health-care workers in all clinical settings involved in the program;
- Distributing the WHO Guidelines on Hand Hygiene in Health Care or their summary in clinical settings involved in the program;



Step 3: Implementation – Introducing the Improvement Activities

- Organizing the educational sessions for all health-care workers working in the clinical settings involved in the program, including distributing educational material, as well as practical training on the how to perform hand hygiene;
- Conducting the knowledge test together with the educational sessions, if not having been carried out already in step 2;



Step 3: Implementation – Introducing the Improvement Activities

- Ensuring that feedback of baseline evaluation data is performed (either during educational sessions or through reports and other means of communication);
- Monitoring monthly alcohol-based handrub consumption;
- Undertaking monthly hand hygiene observations, if feasible;



Step 3: Implementation – Introducing the Improvement Activities

- Organizing regular meetings of the team/committee to monitor the implementation progress, overcome potential obstacles, and adjust plans if necessary;
- Getting prepared to undertake the evaluation activities planned in step 4.

Human Resources Required/key Players Involved In Step 3

- Hand hygiene programme co-ordinator
- Deputy co-ordinator
- Trainers
- Observers
- Senior managers/health-care facility administrators
- Infection prevention and control professionals
- Head nurses, chief doctors, leads from other disciplines
- Central purchasing department staff, pharmacist
- Hand hygiene committee/team
- Patients, patient organizations
- Ministerial authorities, government representatives





Your Action Checks - Step 3

Have the following actions occurred?	Yes/No
Action plan, developed in step 1, used to guide implementation	
Baseline data and analysis fed back to staff	
WHO Guidelines on Hygiene in Health Care distributed	
Posters, other reminders and promotional materials distributed	
Educational materials distributed	



Your Action Checks - Step 3

Have the following actions occurred?	Yes/No
Alcohol-based handrub distributed	
Education and training sessions undertaken	
Monthly measurement of consumption undertaken	
Alcohol-based handrub tolerability and acceptability surveys undertaken	
Monthly hand hygiene compliance observations undertaken (where feasible)	
Regular review meetings held	

Step 4: Follow-up Evaluation – Evaluating the Implementation Impact

Ward infrastructure survey (follow-up)	Week 1–2				
Senior executive managers perception survey (follow-up)		Week 3			
Health-care workers perception survey (follow-up)			Week 4–5		
Hand hygiene observations (follow-up)				Week 6–8	
Soap/handrub consumption survey					Monthly or every 3–4 months
Health-care workers knowledge survey (follow-up)					First week if not carried out in step 3



Step 4: Follow-up Evaluation


- In summary, step 4 should include:
 - Conducting the infrastructure, perception and knowledge surveys and collecting hand hygiene observation and soap/handrub consumption data according to the plans;
 - Performing data entry and analysis as soon as each survey is completed;
 - Evaluating the results and making sure that they are reliable;



Step 4: Follow-up Evaluation

- In summary, step 4 should include:
 - Maintaining activities aimed at hand hygiene improvement inaugurated in step 3 (availability of alcohol-based handrub and products for handwashing, reminders, concurrent education sessions, etc) according to the local needs and plans.

Human Resources Required/key Players Involved In Step 4

- 
- Hand hygiene program co-ordinator
 - Deputy co-ordinator
 - Observers
 - Central purchasing department staff
 - Hand hygiene committee/team

This step is meant to last 2 months on average.





Your Action Checks - Step 4

Have the following actions occurred?	Yes/No
Ward infrastructure survey undertaken	
Senior executive managers perception survey undertaken	
Health-care workers perception survey undertaken	
Consumption data collected monthly	
Hand hygiene observations completed	



Your Action Checks - Step 4

Have the following actions occurred?	Yes/No
Health-care workers knowledge survey undertaken (if applicable)	
Data input accomplished	
Data analysed and interpreted	
Activities aimed at hand hygiene improvement ongoing	

Step 5: Ongoing Planning and Review Cycle – Developing a Plan for the Next 5 Years



Step 5 is a crucial step for reviewing the entire cycle of implementation put in place during the previous steps and for developing long-term plans.

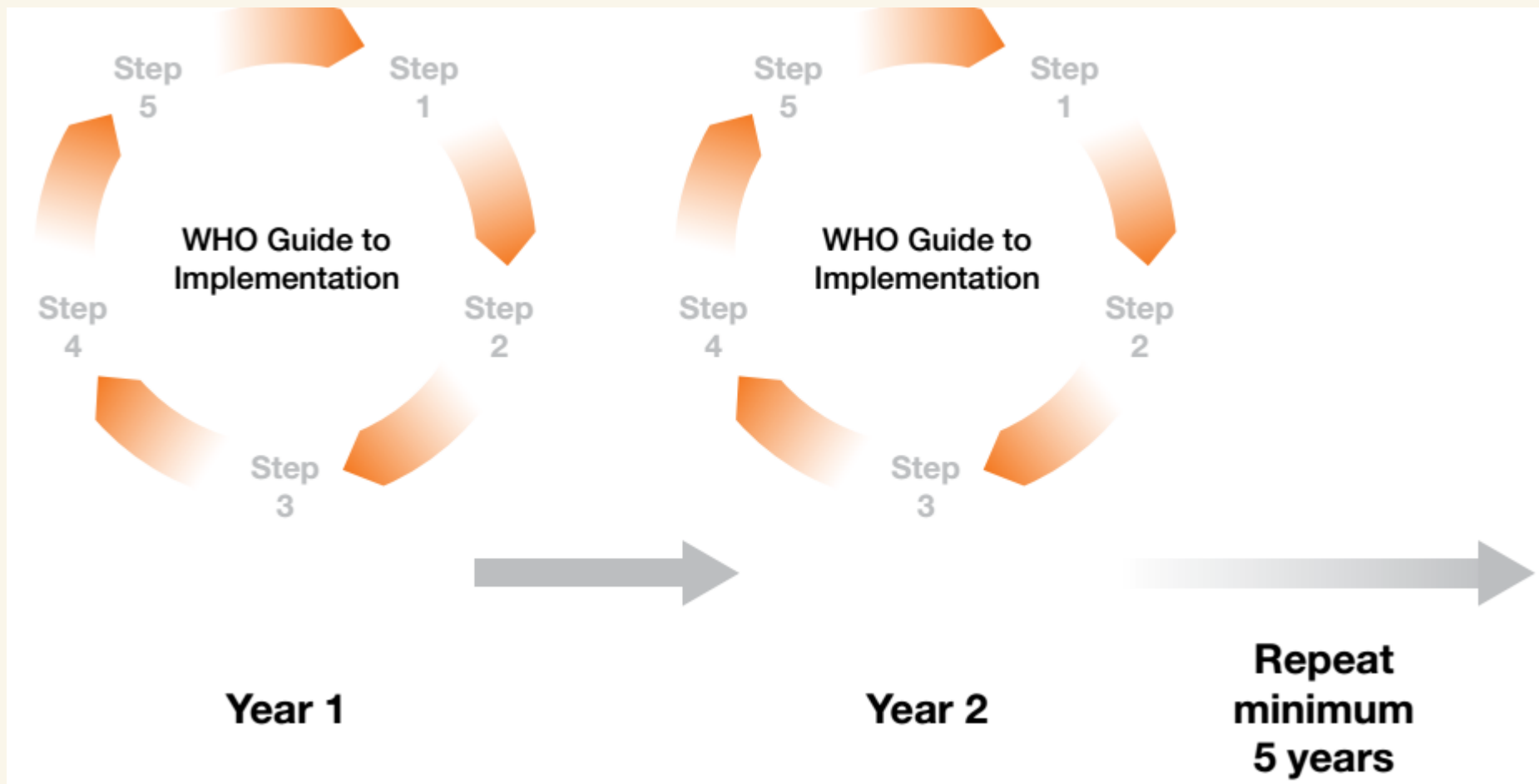
**Hand hygiene improvement is not a time-limited process:
hand hygiene promotion and monitoring
should never be stopped once implemented.**

Activities to take place in step 5 are related mainly to plans and actions to achieve the objectives of strategy components 3 (evaluation and feedback; in particular data analysis and interpretation) and 5 (institutional safety climate).





Step 5





Step 5

- In summary, step 5 should include:
 - Reviewing the follow-up evaluation results and evaluating the impact on key success indicators;
 - Identifying areas that need further improvement as well as lessons learned in order to feed this information into future action plans;
 - Deciding how to disseminate impact results to all health-care workers (e.g. formal event, final written report);



Step 5

- In summary, step 5 should include:
 - Preparing a report detailing the entire roll out of the program, its impact and lessons learned;
 - Engaging senior managers and others with long-term program implementation planning to advocate further hand hygiene improvement and gather their support and input;
 - Establishing the available resources and matching these to the implementation plan;



Step 5

- In summary, step 5 should include:
 - Preparing, finalising and gaining approval for action plan(s), including from those persons who will fully support execution of the plan(s). Plans should include actions in relation to the strategic components (see template action plan) according to local priorities and progress;
 - Preparing, finalising and gaining approval for the program budget;



Step 5

- In summary, step 5 should include:
 - Establishing the process for considering unexpected changes to the plan(s) and budget;
 - Establishing a clear frequency for conducting evaluation surveys;
 - Establishing a system for data evaluation to support development of additional, targeted action plans, including deciding which staff/committee/groups will be the key players and what is expected of them, e.g. careful, expert review to reveal what the results mean in terms of the impact of hand hygiene improvement;



Step 5

- In summary, step 5 should include:
 - Establishing agreed review points (including program progress and assessment reports at specific set times);
 - Establishing a system for reporting at agreed review points, including deciding which staff/committees/groups will be the key players and determining what is expected of them;



Step 5

- In summary, step 5 should include:
 - Establishing additional groups/meetings involving a range of staff from the facility to analyse and reflect on all progress and data and that ensure they feel ownership of the facility plan to improve and sustain hand hygiene;
 - Identifying key staff and planning to work with those from any discipline who present themselves as role models in order to use their motivation to lead and encourage others;



Step 5

- In summary, step 5 should include:
 - Establishing a plan to network with other facilities, regionally, country-wide or internationally, in order to share successes and solutions and catalyse scaling-up;



Step 5

- In summary, step 5 should include:
 - Identifying those who will help publicize the program's successes and answer enquiries about the program from external sources, e.g. the media, for example, and local/facility communications experts.

Step 5

Component	Activity
System change	<ul style="list-style-type: none">• Establish plans for completing the ward infrastructure survey at regular, pre-determined time intervals, reporting results to the identified groups/meetings and revising actions plans as necessary.• Establish a system to ensure that products for hand hygiene are permanently available at the point of care.• Consider if any improvement is still required to make products for hand hygiene, especially alcohol-based handrubs, available at each point of care throughout the entire facility.



Human Resources Required/key Players Involved In Step 5



- Hand hygiene program co-ordinator
- Deputy co-ordinator
- Trainers
- Observers
- Epidemiologist, data manager
- Senior managers/health-care facility administrators
- Infection prevention and control professionals
- Head nurses, chief doctors, leads from other disciplines
- Hand hygiene committee/team





Your Action Checks - Step 5

Have the following actions occurred?	Yes/No
Review of follow-up data performed. Schedule for presentation of data results prepared and shared to include all staff in formal or informal meetings or events	
Areas that need further improvement and lessons learned identified and discussed	
Feedback to and discussion with identified, relevant groups/teams on follow-up data performed	
Report prepared	
Dissemination of impact results to all health-care workers performed	



Your Action Checks - Step 5

Have the following actions occurred?	Yes/No
Finalised and approved long-term action plan(s) in place	
Process for considering unexpected changes to the plan(s) and/or budget in place	
Program review points approved and shared with all relevant groups/teams	
Template for progress reports/program assessment reports finalised and approved	
Action plan review times documented, based on the plans for reviewing evaluation data results	



Your Action Checks - Step 5

Have the following actions occurred?	Yes/No
Meeting dates scheduled for the coming year and shared with relevant groups/teams	
Promotional activities and interventions scheduled for the coming year and shared with relevant groups	
System for identifying new trainers, observers, role models, staff to check reminders' placement established and shared, with an identified review date to ensure staff are still active in their roles	



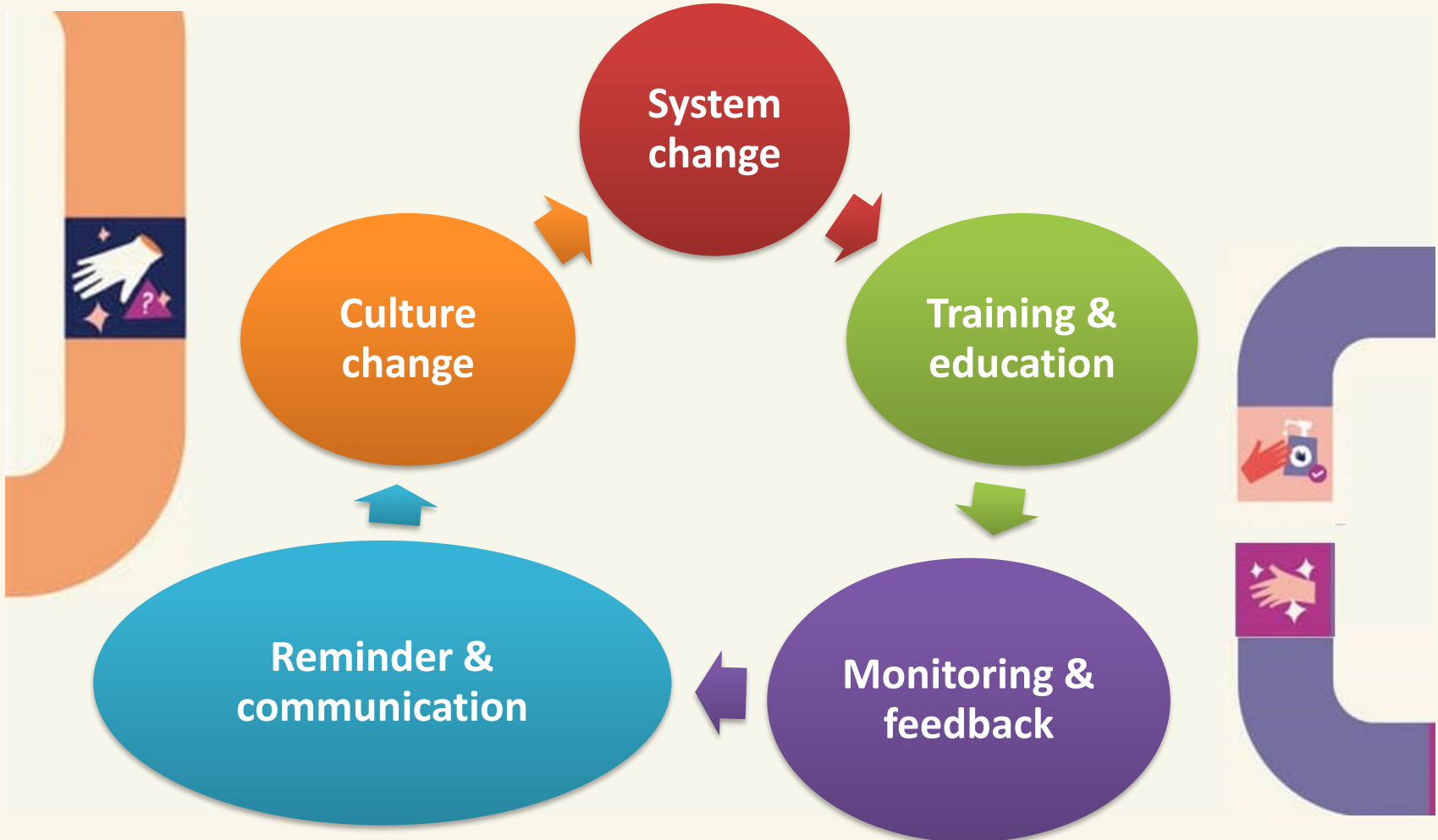
Your Action Checks - Step 5

Have the following actions occurred?	Yes/No
Plan for networking with other facilities, regionally, country-wide or internationally, established for the coming year	
Ideas for scale-up and sustainability presented and consensus approved for inclusion in a longer-term action plan	
A 5-year action plan developed, following the evaluation, implementation and review cycle described throughout this guide	

Conclusions



H.H/IPC Multimodal Strategies





Multimodal Thinking





Multimodal Thinking

1. **What** resources, infrastructures or supplies are required to facilitate practices?
2. **Who** needs to be trained and/or educated to address the identified gap – how will this happen and who will undertake the training/education?
3. **How** have you become aware that practices need to be improved – how will you know that an improvement has taken place?
4. **How** will you publicize action on specific measures and promote improvement and best practice in this area?
5. **How** will you make and maintain this as a health care facility priority and engage senior leaders/managers/champions and opinion leaders over time?

The Five-Step Approach To H.H/IPC Improvement





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1. Guide to Implementation. A Guide to the Implementation of the WHO Multimodal Hand Hygiene Improvement Strategy, WHO, 2009



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2. Improving infection prevention and control at the health facility: Interim practical manual supporting implementation of the WHO Guidelines on Core Components of Infection Prevention and Control Programs. Geneva: World Health Organization; 2018 (WHO/HIS/SDS/2018.10). License: CC BY-NC-SA
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References

3. WHO Guidelines on core components of IPC programs at the national and acute health care facility level. 2016 (<http://www.who.int/infection-prevention/publications/core-components/en/>, accessed 13 April 2018).
4. Improving infection prevention and control at the health facility level. Interim practical manual supporting implementation of the WHO guidelines on core components of infection prevention and control programs. (<http://www.who.int/infection-prevention/tools/core-components/en/>, accessed 3 May 2018)



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Key Topics Of Guidelines

- **Guidelines** are developed to improve decision-making by providing guidance and recommendations according to the best available evidence.
- **A standard operating procedure** is a set of step-by step instructions compiled by an organization to help workers carry out routine operations in the most effective manner.
- **A protocol** is a detailed plan of a scientific or medical experiment, treatment or procedure.

Involving & Influencing Key People – Working Definitions

- **Health care facility leader:** for the purposes of this manual, the health care facility leader or leadership team refers to the facility administrator/chief or CEO* or equivalent.
- **Opinion leader:** an individual with the power to influence the opinion and behavior of others. Securing the support of local opinion leaders for IPC will be a key achievement.

*CEO= Chief Executive Officer

Involving & Influencing

Key People – Working Definitions

- **Stakeholder:** an individual, group or organization that has an interest in your decision to implement a guideline, including those who will be directly or indirectly affected.
- **Champion:** a champion is an influential person who actively supports a new “innovation” and whose influence is a critical driving force behind implementation success. Local champions will vary, but in an IPC context, they could include key professionals, academics, or heads of patient/civil society groups who commit to support the IPC improvement work.



Ward Infrastructure Survey

Ward Infrastructure Survey	
What	A survey tool that collects data about existing infrastructures and resources
Why	<ul style="list-style-type: none">• Because it is important to collect information about existing infrastructures and resources in place in each clinical setting as a baseline. This will also enable follow-up measurement of potential system changes following implementation;• lack of access to sinks, running water and alcohol-based handrub is likely to contribute to lower rates of compliance;• finding out details about the ward infrastructure is useful in terms of explaining current hand hygiene compliance rates. This will also help identify priorities for system change and guide the ongoing preparation and revision of action plans.



Ward Infrastructure Survey

Where	In every clinical setting where an assessment of handwashing and handrub facilities and resources must be conducted in the context of the hand hygiene improvement strategy implementation.
When	<ul style="list-style-type: none">• During the time allocated for baseline evaluation of the existing infrastructure and equipment/resources for hand hygiene;• at key specified follow-up intervals when an update on this information is necessary to maintain the required hand hygiene infrastructures. Even if the facility already conducts a hospital-wide audit of infection control and hand hygiene practices, this should be considered in the action plan for addressing system change;• usually during step 1 or 2 and 4 (see sections III.2.1, III.2.2, III.2.4).

Ward Infrastructure Survey

Who	The survey should be completed by the hand hygiene programme co-ordinator or an identified and informed health-care worker within the clinical setting (e.g. a senior nurse who can complete the survey while walking around the ward).
How	Completion of the form by the identified person should be undertaken by answering questions to obtain the relevant information while walking round the setting. Forms should then be collated by the identified co-ordinator.

Alcohol-based Handrub Planning & Costing Tool

Alcohol-based Handrub Planning and Costing Tool	
What	<p>A tool to help managerial planning to provide alcohol-based handrub at the point of care and to decide on whether:</p> <ul style="list-style-type: none">• to purchase alcohol-based handrub from an established manufacturer; or• to produce it locally, according to the WHO recommendations (see Guide to Local Production: WHO-recommended Handrub Formulations).

Alcohol-based Handrub Planning & Costing Tool

Why	<ul style="list-style-type: none">• Because one of the nine key recommendations arising from the WHO Guidelines on Hand Hygiene in Health Care is the provision of a readily-accessible alcohol-based handrub at the point of patient care for use by health-care workers;• to ascertain the feasibility of implementing alcohol-based handrub;• to evaluate whether the alcohol-based handrub in use conforms to the quality criteria recommended by WHO.
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Alcohol-based Handrub Planning & Costing Tool

Where	In the hospital management unit of the health-care facility.
When	<ul style="list-style-type: none">• During the planning and development of an action plan to improve hand hygiene;• when the health-care facility is in the process of selecting or changing the alcohol-based handrub;• when the health-care facility is in the process of evaluating the quality of the alcohol-based handrub in use;• usually during step 1 (see section III.2.1).

Alcohol-based Handrub Planning & Costing Tool

Who	The tool should be used by senior managers, pharmacists and the hand hygiene programme co-ordinator at the health-care facility.
How	<p>A number of tasks need to be performed to plan for this crucial step:</p> <ul style="list-style-type: none">• Information must be gathered on any and all local producers of alcohol-based handrubs and on regional and international distributors who may be interested in supplying to your market;• senior managers and the hand hygiene programme co-ordinator should use the tool to compile and present all of the relevant information.

**Guide to Local Production:
WHO-recommended Handrub Formulations**

What	<ul style="list-style-type: none"> • A practical guide for use at the pharmacy bench during the preparation of WHO-recommended alcohol-based handrub formulations; • a summary of essential background technical, safety and cost information.
Why	<ul style="list-style-type: none"> • Because in some health-care facilities alcohol-based handrub is not available, not affordable or does not meet the necessary criteria; • local production of handrub according to the formula and methodology recommended by WHO can be an alternative to market products.
Where	In suitable production facilities; in central pharmacies or dispensaries, hospital pharmacies or national drug companies.
When	As identified and required by the health-care facility, for example based on the Alcohol-based Handrub Planning And Costing Tool results; usually during step 1 (see section III.2.1).
Who	The tool should be used by qualified pharmacists; local producers of alcohol-based handrub.
How	Following the instructions from protocol in Part A of the tool.

Soap / Handrub Consumption Survey

What	A monitoring tool that captures the usage of various products intended for hand hygiene purposes.
Why	<ul style="list-style-type: none">• In order to understand the baseline usage of hand hygiene products, a survey is needed before starting implementation of the hand hygiene programme;• to demonstrate the process of changing demands for hand hygiene products, this survey needs to be repeated on a regular basis (i.e. once a month) in the context of a hand hygiene programme;• this is also essential for the purchasing department to foresee the amount of alcohol-based handrub and other products to order / produce.
Where	At the central purchasing department of the health-care facility or at the pharmacy.
When	Initially during the baseline evaluation (step 1, see III.2.1), and with once-monthly or every 3-4 months (or as required) repetition throughout the hand hygiene programme.
Who	The tool should be used mainly by health-care workers in the central purchasing department of the facility. This task needs cooperation with the pharmacy, central supply and possibly the engineering departments.
How	Via a monitoring sheet / protocol with blank fields to be filled in by relevant personnel.

**Protocol for Evaluation of Tolerability and Acceptability of Alcohol-based Handrub in Use or Planned to be Introduced:
Method 1**

What

A protocol for evaluation of tolerability and acceptability of a single alcohol-based handrub product. This tool includes two different components:

- a questionnaire for the subjective evaluation of hand hygiene practices, the product itself and the skin condition following use;
- a scale for the objective evaluation of the skin conditions following use.

Why

Tolerability and appreciation of alcohol-based handrub by health-care workers is a crucial factor influencing successful implementation and prolonged use.

Evaluation of Tolerability & Acceptability, Method 1

Where	In clinical settings where the alcohol-based handrub either has been newly distributed or is in use and there is an interest in assessing its tolerability and acceptability. This protocol is meant to be applied in settings where an average of at least 30 hand hygiene opportunities occurs daily for each health-care worker.
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Method 1

When	Testing of a new product / after the introduction of a product. The protocol design requires at least 3–5 consecutive days of exclusive use of the test product and one month of routine use.
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Method 1

Who	<p>User: a trained observer in collaboration with the programme co-ordinator and the pharmacist</p> <p>Population of the survey: 40 health-care workers should be selected to perform this test:</p> <ul style="list-style-type: none">• questionnaire for subjective evaluation – health-care workers using the product, involved in the survey;• scale for objective evaluation – a trained observer evaluating the health-care workers involved in the survey.
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Evaluation of Tolerability & Acceptability, Method 1

How	<p>Use this tool according to the instructions accompanying the protocol.</p> <p>A similar protocol to be used to compare different products is also available (Protocol for Evaluation and Comparison of Tolerability and Acceptability of Different Alcohol-based Handrubs: Method 2).</p>
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Method 2

Protocol for Evaluation and Comparison of Tolerability and Acceptability of Different Alcohol-based Handrubs: Method 2

What

A protocol to compare the tolerability and acceptability of different alcohol-based handrubs. This tool includes two different components:

- a questionnaire for the subjective evaluation of hand hygiene practices, the product itself and the skin condition following use;
- a scale for the objective evaluation of the skins condition following use.

Why

Tolerability and appreciation of alcohol-based handrub by health-care workers is a crucial factor influencing successful implementation and prolonged use.

Method 2

Where	<p>In clinical settings where there is an interest in comparing the tolerability and acceptability of various alcohol-based handrubs (e.g. in the context of a product selection process). This protocol is meant to be applied in settings where an average of at least 30 hand hygiene opportunities occurs daily for each health-care worker.</p>
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Method 2

When	Comparing different products. The protocol design requires at least 3-5 consecutive days of exclusive use of each test product.
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Method 2

Who	<p>User: a trained observer in collaboration with the programme co-ordinator and the pharmacist</p> <p>Population of the survey: 40 health-care workers should be selected to perform this test:</p> <ul style="list-style-type: none">• questionnaire for subjective evaluation – health-care workers using the product, involved in the survey;• scale for objective evaluation – a trained observer evaluating the health-care workers involved in the survey.
How	<p>Use this tool according to the instructions accompanying the protocol.</p> <p>A similar protocol to evaluate a single product is also available (Protocol for Evaluation of Tolerability and Acceptability of Alcohol-based Handrub in Use or Planned to be Introduced: Method 1).</p>

II.1.3. Using the tools for system change – examples of possible situations at the health-care facility

 Criteria to consider when deciding whether to purchase or produce alcohol-based handrub	
Purchase from the market – criteria	<ul style="list-style-type: none">• Availability• Efficacy• Tolerability• Cost
Produce locally using WHO formulation – criteria	<ul style="list-style-type: none">• Existence of suitable facilities for production• Existence of suitable facilities for storage• Availability of local technical expertise (e.g. pharmacists)• Availability of raw materials• Availability and affordability of dispensers• Overall anticipated costs

Step 5

Component	Activity
System change	<ul style="list-style-type: none">• Establish plans for completing the ward infrastructure survey at regular, pre-determined time intervals, reporting results to the identified groups/meetings and revising actions plans as necessary.• Establish a system to ensure that products for hand hygiene are permanently available at the point of care.• Consider if any improvement is still required to make products for hand hygiene, especially alcohol-based handrubs, available at each point of care throughout the entire facility.



Step 5

Training / education

- Establish an action plan for health-care workers to check each others' competence following training sessions and disseminate this plan to identified clinical settings, while building in a review of this process.
- Establish a system for identifying new trainers and observers, for example ask senior nurses to communicate the names of health-care workers who are motivated and who act as good role models.



Step 5, training



- Set regular meetings for review of available evaluation data in order to revise and target training / education sessions.
- Gather information on ways to present data and discuss these with health-care staff to ensure the best method is used and understood in different clinical settings.
- Engage input from external partners such as training /education experts and patients/patient organizations to evaluate the programme and to help support development of new and innovative training / education methods.



Step 5

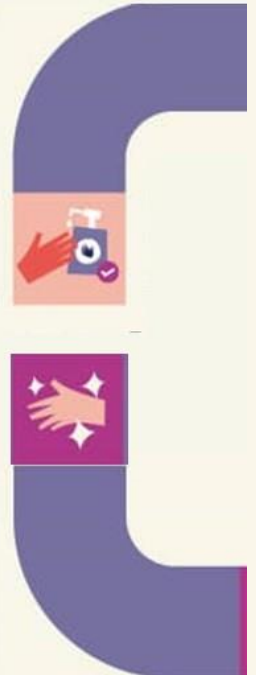
Evaluation and feedback

- Prepare a plan for regular, preferably monthly, monitoring of infrastructure and hand hygiene compliance either in target areas or in all areas of the facility. Prepare a plan for periodic monitoring of knowledge and perception in line with interventions. This should include regular reports and feedback of results to health-care workers along with information on how improvements are being made in hand hygiene.
- Establish measurement of monthly HCAI incidence trends using a valid surveillance system if one is not already in place.



Step 5

- Conduct HCAI prevalence surveys annually in the areas where hand hygiene interventions are taking place. This will be suitable providing that an adequate sample size calculation is performed.
- Establish a system for continuous recording and reporting hand hygiene product consumption monthly, especially alcohol-based handrub, to enable annual trend calculations.



Step 5

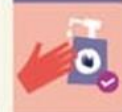
Component	Activity
Reminders in the workplace	<ul style="list-style-type: none">• Gather suggestions concerning adaptations of and ideas for new reminders from a range of motivated staff and/or patient/patient organizations and make a new action plan for development and review of these. Include a local designer in this process if possible and allocate budget to this service if necessary.• Identify a range of staff in clinical settings who will take ownership of refreshing posters and ensuring they are in good condition.



Step 5

Institutional
safety climate

- Establish hand hygiene on the list of indicators for assessment of quality of health care delivered at the facility by preparing a report featuring background information on the necessity for a hand hygiene improvement, the programme plans, evaluation data results and the potential benefits of having hand hygiene as a quality indicator.
- Establish a system for setting and reviewing annual goals for hand hygiene improvement at facility, department and clinical setting/ ward level and include patients/patient organization opinion in this process. This should also include how and where evaluation data results will be posted.



Step 5



- Prepare a schedule of presentations and/or initiatives (e.g. stands, promotions, rewards, etc) on hand hygiene improvement and the reasons for successes, including patients/patient organizations where relevant. Ensure these presentations are given to all groups within the facility to build on their understanding of why hand hygiene is important for ensuring a safety climate.
- Gather quotes and messages from a range of staff within the facility on an on-going basis to demonstrate the commitment and motivation of everyone to ensuring a safety climate by improving hand hygiene practices and preventing HCAI.





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