# Advanced Infection Prevention and Control Training

World Health Organization

## Leadership and programme management in infection prevention and control

2018

WHO Global Unit 2017

# Module outline

**Leadership and programme management in infection prevention and control (IPC)**

| | |
|---|---|
| **Session 1**: The role of the IPC focal person in developing and implementing IPC programmes. | 120 mins |
| **Session 2**: Becoming an IPC leader – an exploration of what makes an effective leader. | 90 mins |
| **Session 3**: Implementation strategies and behaviour change. | 90 mins |
| **Session 4**: Effective communication in IPC. | 45 mins |

# Summary of the module

## Session 1


**Introduction to leadership in the context of:**
the core components;
the multimodal strategy;
implementation resources;
project management;
IPC interlinkages;
principles of adult learning.

## Session 2


**Drill-down on IPC leadership:**
what makes a good leader;
the relevance of leadership to IPC;
leadership characteristics;
types of leaders;
leadership challenges and opportunities.

## Session 3


**Exploration of implementation and behaviour change:**
împlementation success factors;
behaviour change and implementation;
quality improvement cycles and implementation;
leadership challenges and solutions.

## Session 4

**Focus on communication and advocacy:**
communication skills in IPC;
choosing the right communication channels;
leadership and conflict resolution.

# The symbols explained


You are encouraged to participate in discussion questions, where you can use your own experience and prior knowledge.

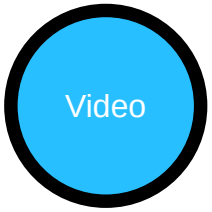

You are encouraged to participate in group activities to drill into key topics.


Essential content (not to be missed!).


Key reference for consolidating learning.


Some suggested answers to activities/group work.


In-depth case study applying learning into practice.




Video material to supplement learning.


Required reading or reflection outside of the classroom.

# Session 1:

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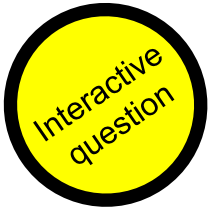
## The role of the IPC focal person

# Competencies

- Lead the design, prioritization, implementation and evaluation of an evidence-based IPC programme, informed by project management principles.
- Advocate for synergy between IPC and related programmes including patient safety, quality improvement and other vertical programmes.
- Successfully influence relevant stakeholders to gain support and necessary resources for an IPC programme.
- Support educational interventions and a learning environment to address gaps in knowledge, skills and competence of IPC workers.

# Learning objectives

- Demonstrate awareness of the role of the IPC focal person.
- Describe core functions and responsibilities of the IPC focal person.
- Identify leadership development opportunities for IPC focal persons.
- Consider appropriate programme and project management strategies to support IPC programme development and implementation.
- Develop teaching approaches that satisfy a variety of learners.



# Key points

- The WHO core components are a **road map** for how IPC can prevent harm due to health care-associated infection (HAI) and antimicrobial resistance (AMR).
- The **IPC focal person**[1] should oversee the **development**, **implementation**, **coordination** and **evaluation** of the IPC programme and all its activities.
- The development of leadership and programme management skills supports success.
- **IPC focal persons** must be aware of their important role in advocating for a multimodal approach to improvement.

[1]IPC focal person is a term used to denote the lead IPC practitioner at every level of the health care system.

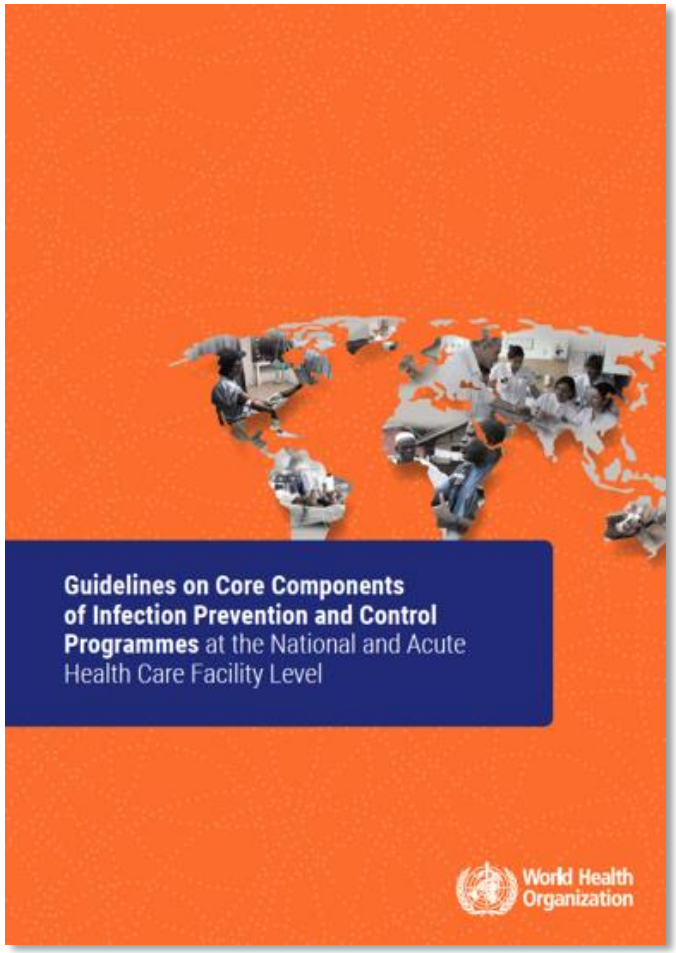
Key resource

# Impact of effective IPC

World Health Organization


http://www.who.int/gpsc/HAI-Infographic.pdf?ua=1

# The core components of an IPC programme




- WHO guidelines (2016).
- A critical resource for IPC leaders.
- Describe the evidence-based core elements of an ***effective*** IPC programme at the national and acute health care facility level.

http://www.who.int/infection-prevention/publications/core-components/en/

Key resource

# IPC leaders describe the Core Components

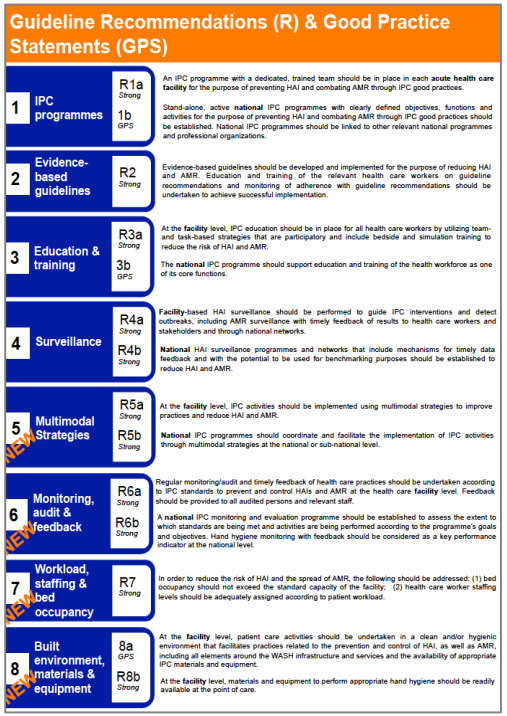
World Health Organization


https://www.youtube.com/watch?v=LZapz2L6J1Q&feature=youtu.be

Video

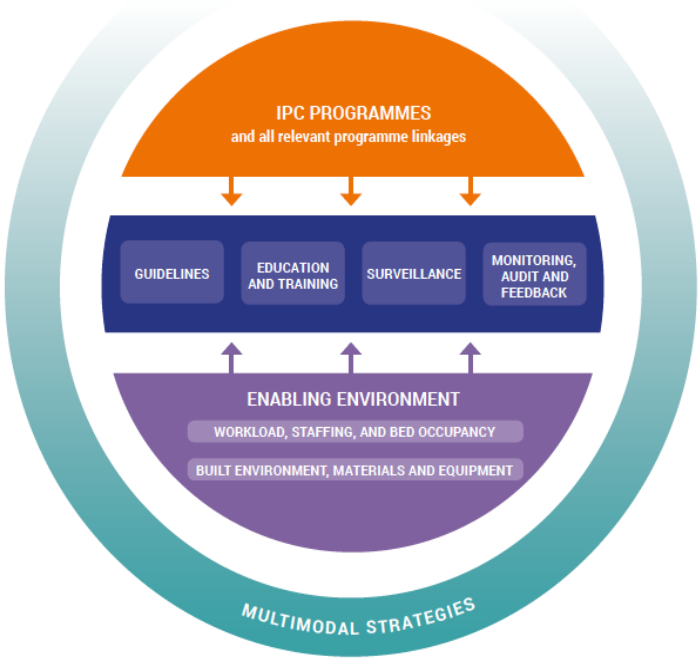
# Handouts 1 & 2

Refer to handouts 1 & 2 in the student handbook for the next part of the session



| Guideline Recommendations (R) & Good Practice Statements (GPS) | | |
|---|---|---|
| 1 IPC programmes | R1a *Strong*<br>1b *GPS* | An IPC programme with a dedicated, trained team should be in place in each **acute health care facility** for the purpose of preventing HAI and combating AMR through IPC good practices.<br>Stand-alone, active **national** IPC programmes with clearly defined objectives, functions and activities for the purpose of preventing HAI and combating AMR through IPC good practices should be established. National IPC programmes should be linked to other relevant national programmes and professional organizations. |
| 2 Evidence-based guidelines | R2 *Strong* | Evidence-based guidelines should be developed and implemented for the purpose of reducing HAI and AMR. Education and training of the relevant health care workers on guideline recommendations and monitoring of adherence with guideline recommendations should be undertaken to achieve successful implementation. |
| 3 Education & training | R3a *Strong*<br>3b *GPS* | At the **facility** level, IPC education should be in place for all health care workers by utilizing team- and task-based strategies that are participatory and include bedside and simulation training to reduce the risk of HAI and AMR.<br>The **national** IPC programme should support education and training of the health workforce as one of its core functions. |
| 4 Surveillance | R4a *Strong*<br>R4b *Strong* | **Facility**-based HAI surveillance should be performed to guide IPC interventions and detect outbreaks, including AMR surveillance with timely feedback of results to health care workers and stakeholders and through national networks.<br>**National** HAI surveillance programmes and networks that include mechanisms for timely data feedback and with the potential to be used for benchmarking purposes should be established to reduce HAI and AMR. |
| NEW 5 Multimodal Strategies | R5a *Strong*<br>R5b *Strong* | At the **facility** level, IPC activities should be implemented using multimodal strategies to improve practices and reduce HAI and AMR.<br>**National** IPC programmes should coordinate and facilitate the implementation of IPC activities through multimodal strategies at the national or sub-national level. |
| NEW 6 Monitoring, audit & feedback | R6a *Strong*<br>R6b *Strong* | Regular monitoring/audit and timely feedback of health care practices should be undertaken according to IPC standards to prevent and control HAIs and AMR at the health care **facility** level. Feedback should be provided to all audited persons and relevant staff.<br>A **national** IPC monitoring and evaluation programme should be established to assess the extent to which standards are being met and activities are being performed according to the programme's goals and objectives. Hand hygiene monitoring with feedback should be considered as a key performance indicator at the national level. |
| NEW 7 Workload, staffing & bed occupancy | R7 *Strong* | In order to reduce the risk of HAI and the spread of AMR, the following should be addressed: (1) bed occupancy should not exceed the standard capacity of the facility; (2) health care worker staffing levels should be adequately assigned according to patient workload. |
| NEW 8 Built environment, materials & equipment | 8a *GPS*<br>R8b *Strong* | At the **facility** level, patient care activities should be undertaken in a clean and/or hygienic environment that facilitates practices related to the prevention and control of HAI, as well as AMR, including all elements around the WASH infrastructure and services and the availability of appropriate IPC materials and equipment.<br>At the **facility** level, materials and equipment to perform appropriate hand hygiene should be readily available at the point of care. |

Handout 1




Handout 2

Key resource

# Core component 1

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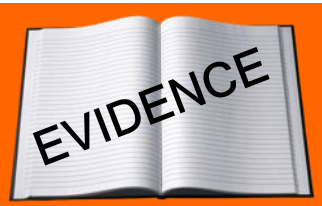
| | | |
|---|---|---|
| 1 | IPC Programmes | R1a *Strong*<br>R1b *GPS* |


Two high-quality studies shows that IPC programmes including dedicated, trained professionals are effective in reducing HAIs in acute care facilities.

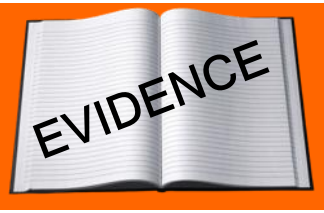
- Clearly defined **objectives.**
- **Dedicated, trained professionals & multidisciplinary team.**
- **Support** from the **facility leadership.**
- Good quality **microbiological laboratory.**

# Core component 2

World Health Organization


## 2 Evidence-based guidelines

R2
*Strong*




Six high-quality studies show that guidelines implemented in combination with health care workers' education and training are effective in reducing HAI.

- **Expertise** required.
- **Local prioritization.**
- Providing **resources for implementation.**
- **Monitoring** implementation.
- **Health care workers' (HCWs) education** on recommended practices.

# Essential guidelines

**The following are considered essential according to the core components**

- Standard precautions
- Decontamination
- Safe handling of linen and laundry
- Health care waste management
- Respiratory hygiene and cough etiquette
- Environmental cleaning
- Prevention of sharps injuries
- Hand hygiene
- Transmission-based precautions (including patient identification, placement and personal protective equipment)
- Aseptic technique for invasive procedures (including surgery)
- Device management for clinical procedures
- Sterilization and medical devices decontamination

# Core component 3

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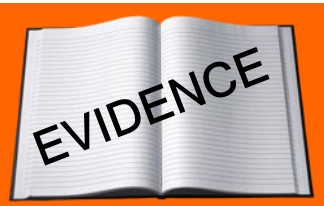
| 3 | Education & Training | R3a *Strong* | 3b *GPS* |
|---|---|---|---|


15 high-quality studies show that a practical hands-on approach incorporating individual experiences is associated with decreased HAI and increased hand hygiene compliance.

- **Pre-graduate, postgraduate, in-service** training.
- **Evaluation** of training impact.
- **Collaboration** with local academic institutions.

# Core component 4

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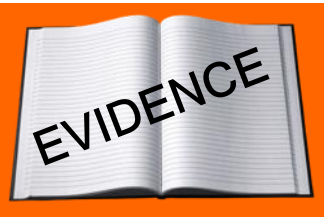
| 4 | Surveillance | R4a *Strong* R4b *Strong* |
|---|---|---|


13 facility level and one national study showed a decrease in HAI with surveillance and also that timely feedback of results is influential in the implementation of effective IPC actions.

- Standardized definitions, appropriate methods, good quality laboratory support, quality control.
- Training and expertise needed.

# Core component 5

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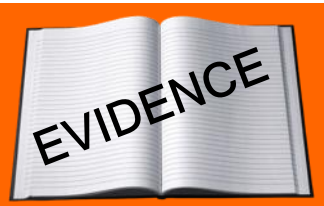
**5 Multimodal Strategies** NEW

R5a *Strong*

R5b *Strong*

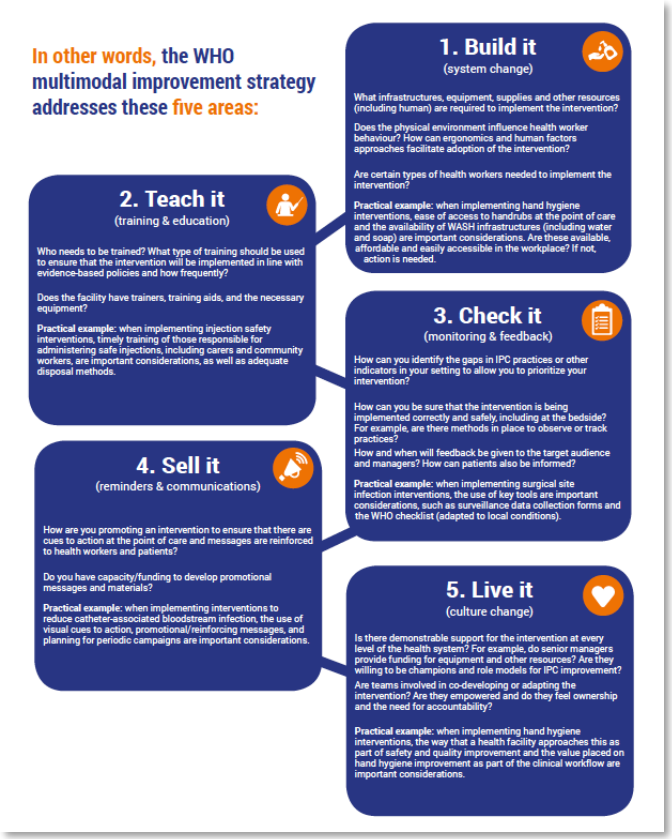

44 national and 14 facility level high-quality studies show that implementing IPC activities at facility level using multimodal strategies is effective to improve IPC practices and reduce HAI.

A multimodal strategy comprises several elements or components (three or more; usually five) implemented in an integrated way with the aim of improving an outcome and changing behaviour. It includes tools, such as bundles and checklists, developed by multidisciplinary teams that take into account local conditions.

# Multimodal strategies

## Handout 3

Refer to handout 3 in the student handbook




IPC focal persons must be able to clearly articulate how the multimodal strategy applies to all IPC activities

Interactive question

Interim Practical Manual supporting national implementation of the WHO guidelines on core components of infection prevention and control programmes. Geneva: World Health Organization; 2017.

# The multimodal strategy in real life

Consider the following scenario

- A hospital launches a training programme on safe disposal of used needles.
- All HCWs are educated (teach it), posters are placed on the walls (sell it) and regular audits are introduced (check it).
- But procurement of sharps bins is problematic, supplies regularly run out (build it) and the hospital management are not committed to regularly reviewing audit results (live it) .

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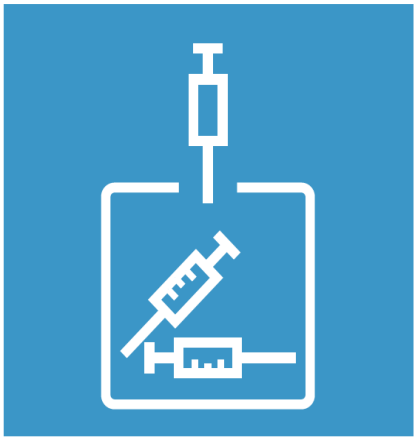
Will the strategy work?



Interactive question

# Core component 6

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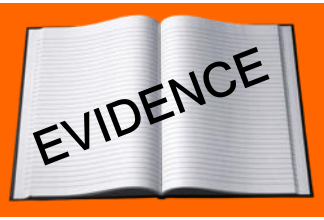
6 **Monitoring, Audit & Feedback**

NEW

R6a *Strong*

R6b *Strong*


Six high-quality facility level and one national study showed that regular monitoring/auditing of IPC practices paired with regular feedback is effective.

- To achieve behaviour change or other process modification.
- To document progress and impact.

# Core component 7 (facility)

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**7 NEW Workload, Staffing & Bed Occupancy** — **R7** *Strong*


EVIDENCE

19 high-quality studies showed that bed occupancy exceeding the facility standard capacity and inadequate HCW staffing levels is associated with an increased risk of HAI.

- Standards for bed occupancy: **one patient per bed** with **adequate spacing between beds.**
- **HCW staffing** levels should be adequately assigned according to patient workload.
- **Overcrowding** recognized as a **public health issue** that can lead to disease transmission.

# Core component 8 (facility)

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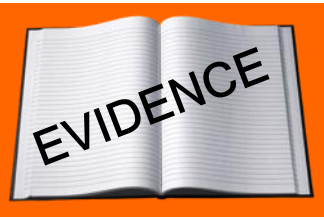
**8** NEW **Built environment, materials & equipment**

8a *GPS*

R8b *Strong*


11 studies showed that the availability of equipment and products at the point of care (particularly for hand hygiene) leads to increased compliance with good practices and reduction of HAI.

- Appropriate clean and hygienic environment, water, sanitation and hygiene (WASH) services and materials and equipment for IPC, in particular for hand hygiene.

# The core components at-a-glance

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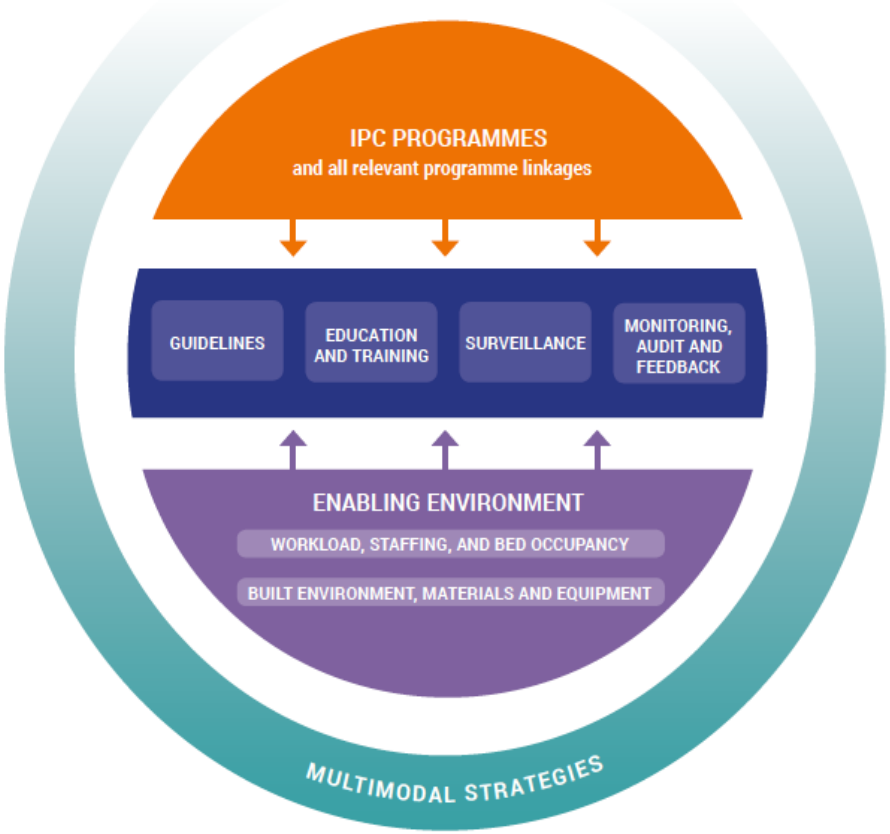



Resources are available to support implementation

Key resource

# Implementation resources



Practical manual to support implementing the core components

Assessment tools to support baseline and follow-up assessment

Academic publications to convince senior managers and leaders

Videos explaining the core components and leadership in IPC

Advocacy video on IPC, HAI and AMR

http://www.who.int/infection-prevention/tools/core-components/en/

# Key roles and tasks of the IPC focal person (1)


- Development, implementation, coordination and evaluation of the IPC programme.
- Development and support of implementation of IPC activities at facility & district level.
- Liaison with relevant hospital/district departments to ensure integration of IPC activities.
- Development, updating, and management of IPC strategies, guidelines and all tools and resources.
- Auditing and monitoring of progress of facility IPC plan.

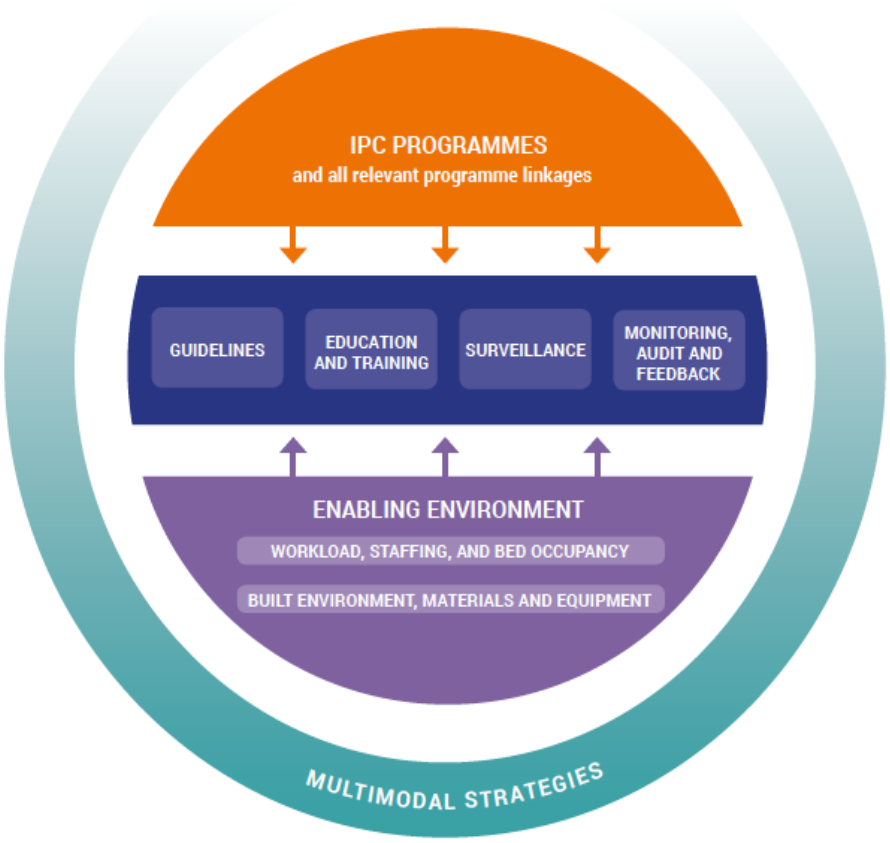
Key resource

# Key roles and tasks of the IPC focal person (2)


- Development of surveillance systems for HAIs, etc. in collaboration with epidemiologists and a surveillance team.
- Interpretation and communication of data on infrastructure and process and practice indicators for decision-makers.
- Sustainability of the IPC workforce through training.
- Awareness-raising of HAIs and AMR among the public and health care professionals.
- Advice about IPC supplies, technical specifications and procurement systems.

Key resource

# Project management – an important skill




Understand the role of project management in IPC programmes

# Project management and IPC programmes

- A successful IPC programme can be enhanced through understanding the principles of project management.
- **Projects** have to be delivered on **time**, on **budget** and with a determined level of **quality**
- They also require the **collaboration** of multiple professionals
- IPC focal persons must be familiar with standard project management terminology and approaches, and recognize **critical stages and risks** in managing projects.

But... what is a project?

# What is a project?

**A unique process consisting of a set of:**

- **Coordinated** and controlled activities
- With **start** and **finish** dates
- Clear **roles** and **responsibilities** and **delegation of tasks**
- Undertaken to achieve an **objective**
- Conforming to specific **requirements**, including
- Constraints related to time, cost, quality and resources

Answers

# Project management and implementation

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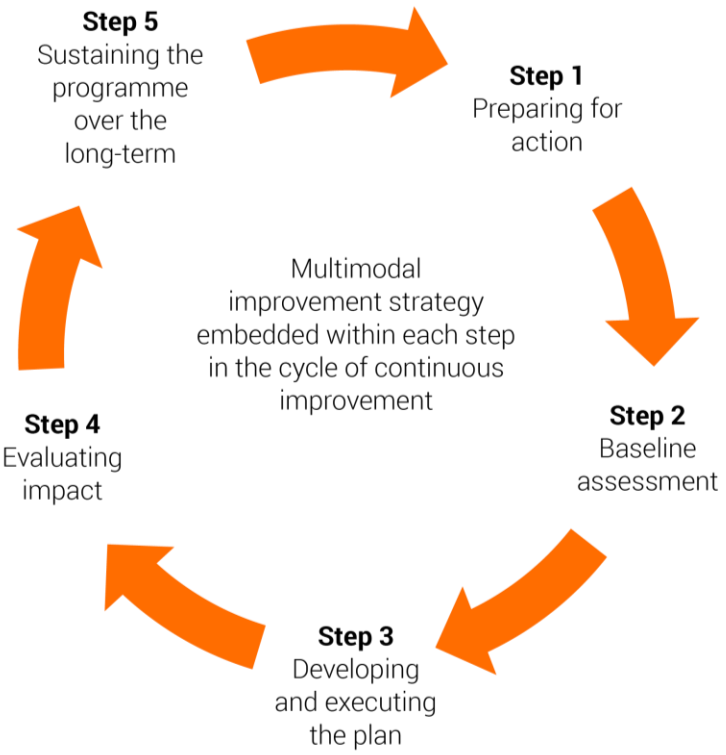
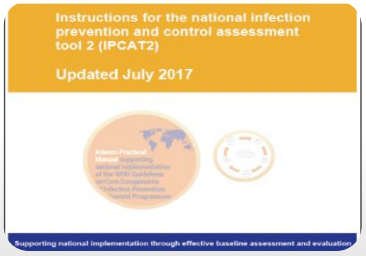
**Step 3: developing and executing the plan**




Developing and executing an action plan requires good **project management** skills:

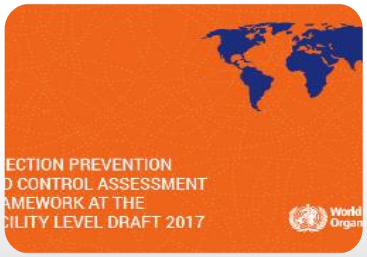
- Agree timelines.
- Consider budget and resource needs.
- Establish monitoring mechanisms.
- Consider risks to success.

# Assessments and situation analysis as a key step of project management (steps 2 and 4)



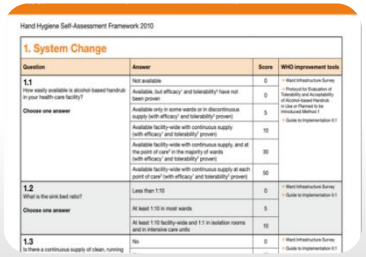

## Infection prevention and control assessment tool (IPCAT2)

- National-level assessment tool.
- Provides baseline and ongoing data for improvement.




## Infection prevention and control assessment framework (IPCAF)

- Facility-level assessment tool.
- Provides baseline and ongoing data for improvement.



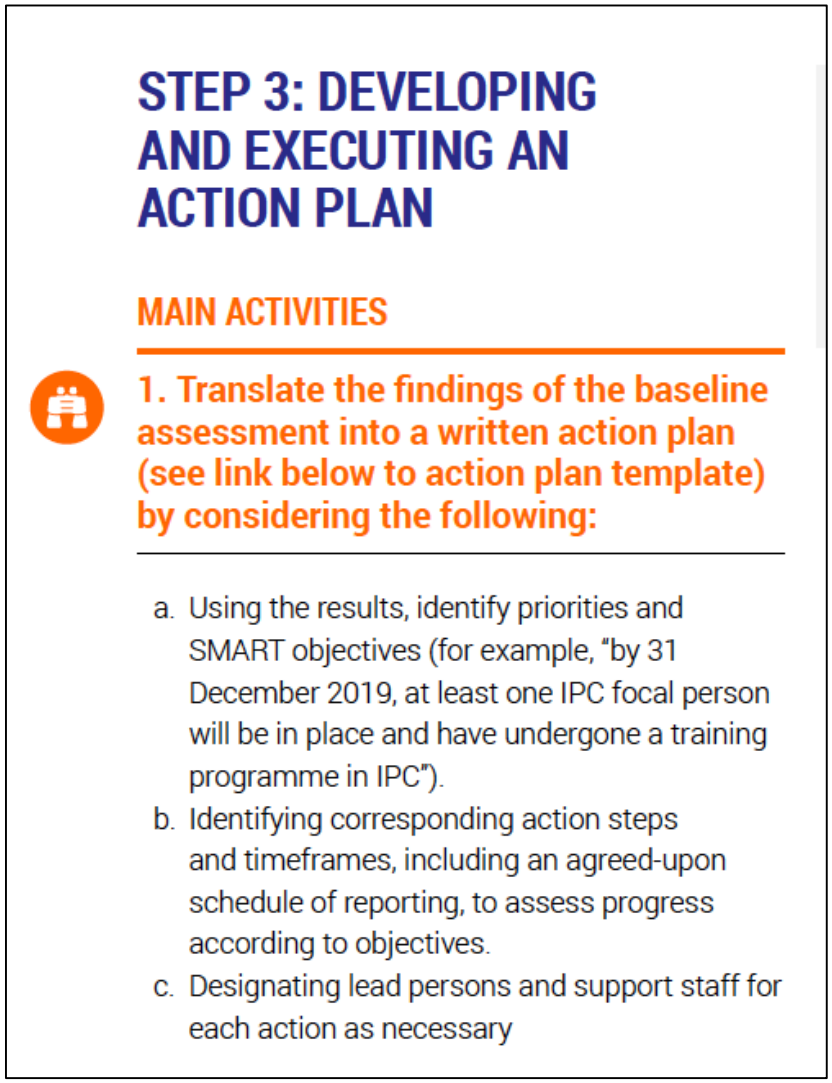

## Hand hygiene self-assessment framework (HHSAF)

- Diagnostic tool for health care facilities.
- Provides baseline and ongoing data for improvement.



http://who.int/infection-prevention/tools/core-components/en/

# Example: national level (step 3)



## STEP 3: DEVELOPING AND EXECUTING AN ACTION PLAN

### MAIN ACTIVITIES

**1. Translate the findings of the baseline assessment into a written action plan (see link below to action plan template) by considering the following:**

a. Using the results, identify priorities and SMART objectives (for example, "by 31 December 2019, at least one IPC focal person will be in place and have undergone a training programme in IPC").
b. Identifying corresponding action steps and timeframes, including an agreed-upon schedule of reporting, to assess progress according to objectives.
c. Designating lead persons and support staff for each action as necessary

- Conduct assessment to understand where your country stands on WHO IPC core components as well as current strengths/gaps.
- Use data to develop a specific, measurable, actionable, realistic and timely (SMART) action plan to be refreshed (bi-)annually.
- Identify who needs to lead and be involved in the assessment.
- Remember to draw on existing relevant assessments, for example, HMIS/SARA, joint external evaluation (JEE), national AMR assessments, etc.
- Use results to provide actionable feedback to all stakeholders.
- Share with IPC team/committee, national leaders and decision-makers, other relevant programmes (can re-assess joint areas of work).
- Present results in a format suitable to each audience.

Interactive question

# An example of a structured IPC action plan

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| CORE COMPONENT:<INSERT NAME OF CORE COMPONENT> | | | | | | |
|---|---|---|---|---|---|---|
| **Priority gaps identified** | **Action required** | **Lead person** | **Start date** | **End date** | **Budget (if applicable)** | **Monitoring and evaluating implementation progress (include review/ completion dates)** |
| <List all gaps identified from baseline assessment and prioritized for action> | <List the actions that are planned using information gathered as you work through the 5 steps of the implementation cycle> | <List the lead person or group driving the action plan> | <State when the action will start to be addressed> | <Estimate the deadline for action to be completed, including periodic review dates if applicable> | <Estimate the budget required to address the required actions> | <Describe the progress that has been made at each review date including decisions and actions taken, and the need for further actions to be taken to achieve completion> |
| Gap 1: | | | | | | |

http://www.who.int/infection-prevention/campaigns/clean-hands/cc-implementation-guideline.pdf?ua=

Interactive question

# IPC relevant programme interlinkages

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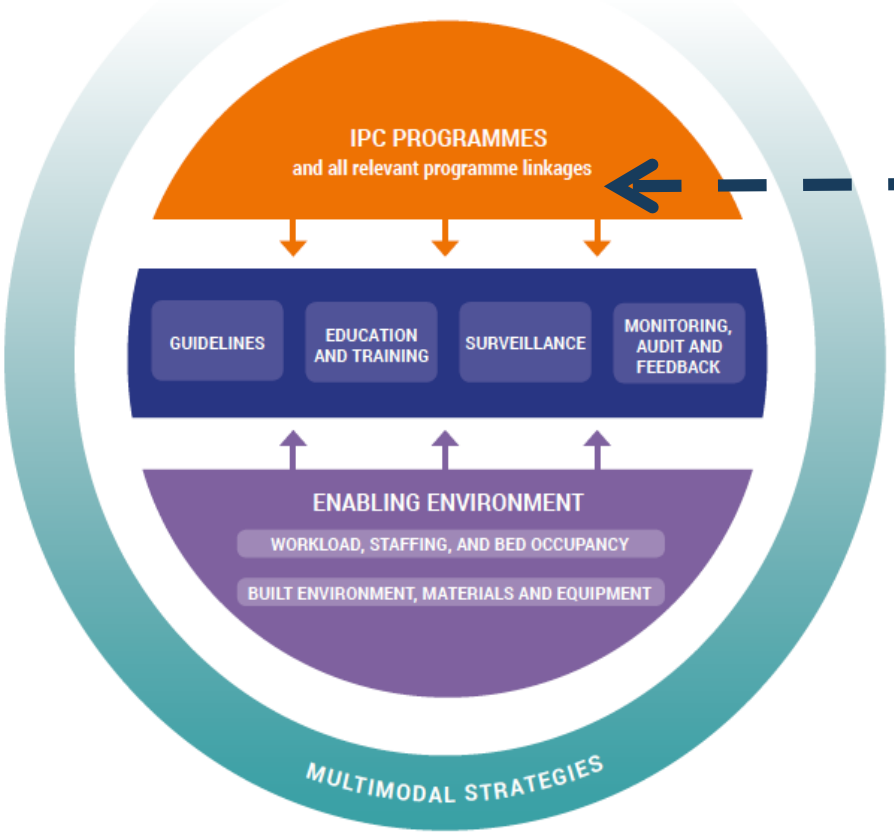
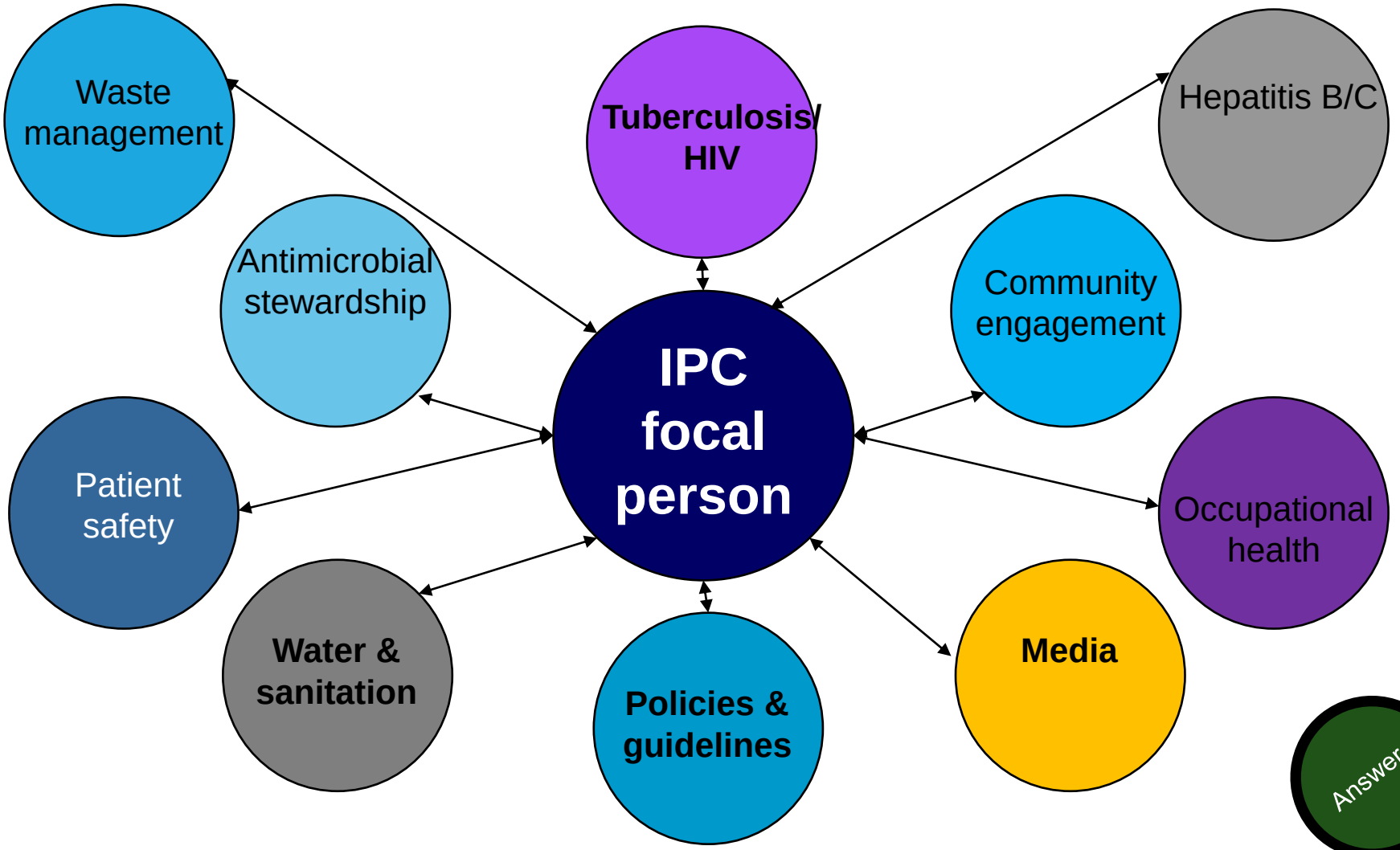



Who should IPC link with?

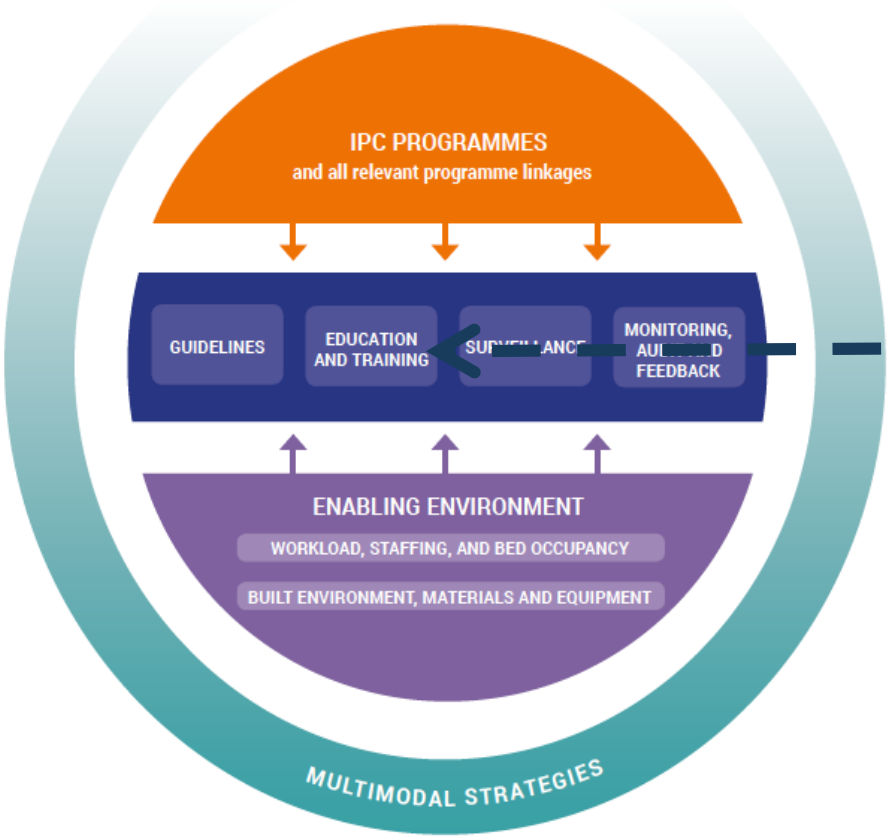
Interactive question

# Linkages with other programmes

**IPC focal person advocates for IPC across programmes**



# Core components and the principles of adult learning




Understand the principles of adult learning

# Understanding the principles of adult learning

**A key part of effective training and education**

- **IPC** is a discipline that **requires** specific **knowledge acquisition**.
- Educational interventions are crucial IPC quality improvement elements.
- **IPC focal persons** must be **able** to **support** educational interventions and therefore be **familiar with** pedagogical approaches.
- **Implementation, adaptation and innovation** in IPC practice require **constant learning.**

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What expertise do we have in the room?

# Application to the real world

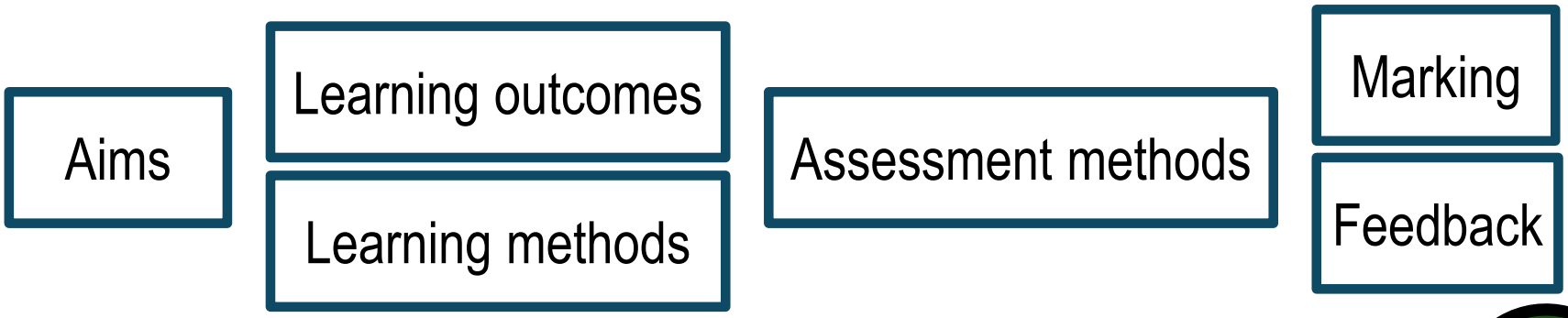
Think of a recent learning experience

1. What were the **aims** and **outcomes** – were they clear?
2. What **methods** were used to help you learn - how were you encouraged to participate?
3. How were you **assessed**?
4. How did you **evaluate** your experience?
5. What **feedback** was provided to support your learning?

# Developing an educational intervention in IPC

**Key considerations**

- Identify **aims** and what the learners will learn (**outcomes**).
- Consider learners' **preferences** and **adapt** methods.
- Prepare **assessment** (evaluation) methods that reflect a variety of outcomes and learners.
- Offer **feedback** to signpost achievement and progress.




Answers

# Supplementary information is available for home reading

**Refer to student handbook**

- David Kolb's theory of adult learning.
- Tailoring your teaching to different situations.
- Teaching approaches for IPC.

Homework

Kolb D. Experiential learning: experience as the source of learning and development. Englewood Cliffs, NJ: Prentice Hall, Inc.; 1984.

# Leadership saves lives!

World Health Organization

**Effective leadership and influence in IPC saves lives**

You play a critical role in supporting and stimulating the **right action** at the **right time** to:

- Support the development of an effective IPC programme.
- Support the implementation of the core components of IPC programmes in your facility.
- Contribute to a reduction in HAI and AMR.
- Run effective projects.
- Link with other relevant programmes.
- Train the health workforce effectively.

We need to influence doctors, nurses, managers and leaders and all disciplines in health care!

# Further reading on IPC programmes


WHO (2016). Guidelines on core components of infection prevention and control programmes at the national and acute health care facility level.
http://apps.who.int/iris/bitstream/10665/251730/1/9789241549929-eng.pdf?ua=1

WHO (2009). A guide to the implementation of the WHO multimodal hand hygiene improvement strategy.
http://apps.who.int/iris/bitstream/10665/70030/1/WHO_IER_PSP_2009.02_eng.pdf

Zingg W, et al. Hospital organisation, management, and structure for prevention of health-care-associated infection: a systematic review and expert consensus. Lancet Inf Dis. 2015;15(2):212–224.



WHO (2009). A guide to the implementation of the WHO multimodal hand hygiene improvement strategy.
http://apps.who.int/iris/bitstream/10665/70030/1/WHO_IER_PSP_2009.02_eng.pdf



Saint S, et al. The importance of leadership in preventing healthcare-associated infection: results of a multisite qualitative study. Infect Control Hosp Epidemiol. 2010;31(9):901-907.

Storr J, et al. Redefining infection prevention and control in the new era of quality universal health coverage. J Res Nursing. 2016;21(1) 39–52.


# Further reading on project management


WHO (2004). Planning and implementation of district health services.
http://www.who.int/management/district/planning_budgeting/PlanningImplementationDHSAFROMd4.pdf?ua=1

WHO (2007) A guide for fostering change to scale up effective health services.
http://www.who.int/management/AGuideFosteringChangeScalingUpHealthServices.pdf

ISO 10006:2017. Quality management -- guidelines for quality management in projects.
https://www.iso.org/standard/70376.html

UNICEF/UNDP/World Bank/WHO (2005). Effective project planning and evaluation in biomedical research.
http://apps.who.int/iris/bitstream/10665/69237/2/TDR_RCS_PPE_05.2_eng.pdf?ua=1


# Further reading on adult learning


Anderson P, et al. Teaching infection prevention using concept mapping learning strategies. Am J Infect Control. 2016; 41(6):S58.

Koo E, et al. Making infection prevention education interactive can enhance knowledge and improve outcomes: results from the Targeted Infection Prevention (TIP) study. Am J Infect Control. 2016;44(11):1241–1246

NHS Education for Scotland. Qualitative analysis of learning needs in infection prevention and control (IPC) staff. http://www.nes.scot.nhs.uk/media/3957464/ipc_tna_report_final.pdf

Kolb D. Experiential learning: experience as the source of learning and development. Englewood Cliffs, NJ: Prentice Hall, Inc.; 1984.


Reference/ reading

# Session 2:

## Becoming an IPC leader

An exploration of what makes an effective leader.

# Competencies

- Communicate a vision of IPC that aligns organizational and workforce priorities.
- Foster and support collaborative and effective individual, team and organizational IPC performance.
- Use relevant quality improvement approaches to increase individual, team and organizational IPC performance.
- Develop a comprehensive, evidence-based strategy for effective IPC services.

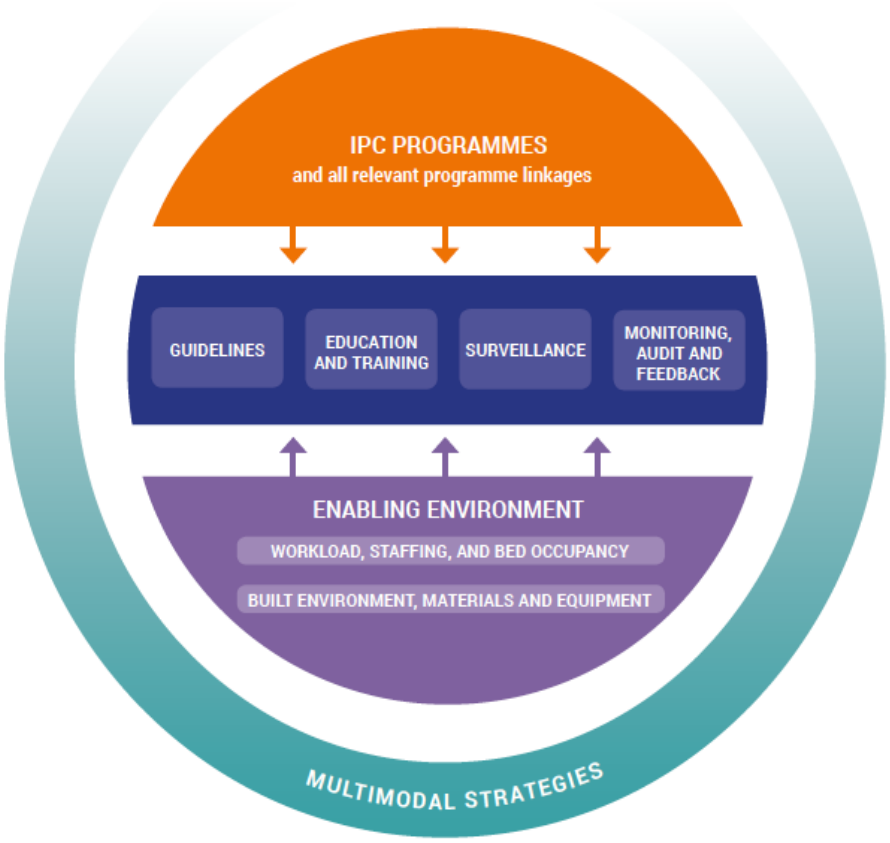
# Learning objectives

- Define leadership.
- Describe the influence of leadership on selected IPC outcomes.
- Identify different domains of leadership in the literature.
- Discuss a variety of leadership styles.
- Reflect upon such styles and apply them to their own leadership style and personality.

# Key points

- **Robust leadership** in IPC is **essential** for effective decision-making, efficient use of resources and the provision of **high-quality, safe, effective, person-centred care.**
- Strong leadership supports activities to prevent and control infection within the organization, in particular by **catalyzing participation** and **motivation** among local teams, and is essential to achieve reduction of patient harm due to HAIs and AMR.
- **Leadership** must be aligned – **from** the **hospital management team to** the executive and specialist infection control team, to **clinical and non-clinical staff.**

# Leadership - a critical success factor

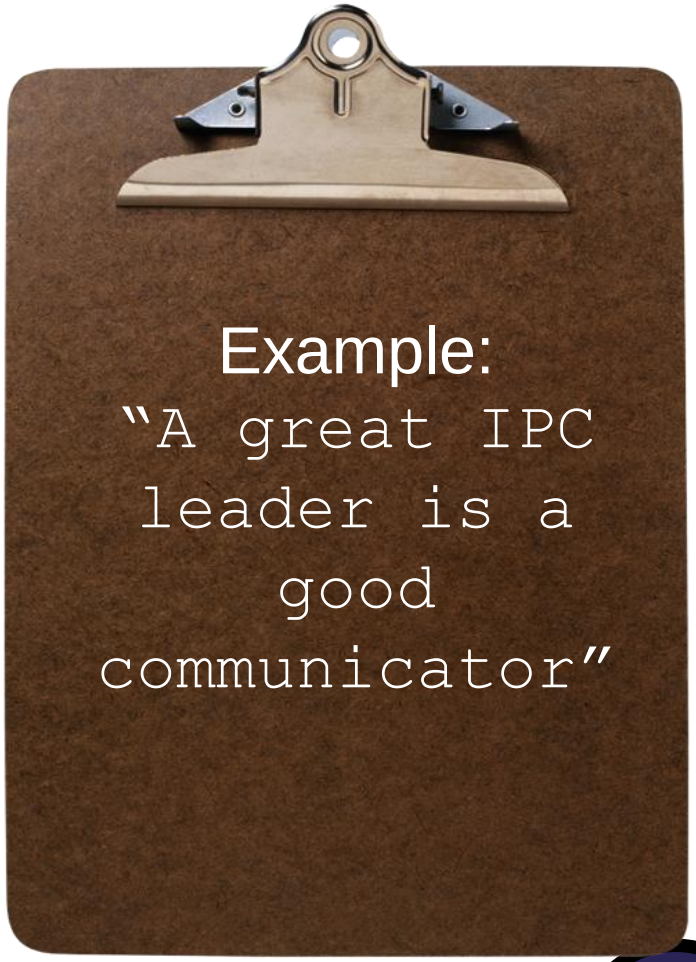



Understand the value of leadership in effective IPC

# What would a great IPC leader look like?

Write down what you think are the top three things that a **great** IPC leader does to demonstrate their leadership.

*No right or wrong answers!*




Group work

# IPC leadership worldwide


Interactive question

Video

# Leadership - what are we talking about?

Leadership describes the ability to:

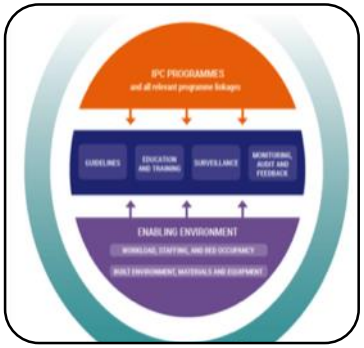
- **influence**
- **motivate and**
- **enable**

members of an organization to contribute to the effectiveness and success of the organization.

House RJ, et al. Understanding cultures and implicit leadership theories across the globe: an introduction to project GLOBE. J World Business,. 2002;37(1): 3-10.

# Leadership - what are we talking about?

**The ability to influence, motivate, enable…**




The implementation of guidelines into practice


Behaviour change through multimodal strategies

# What is the relation between leadership and effective IPC?

World Health Organization

- **Leaders** in close and regular contact with clinical teams in wards and units **positively influence quality** of care.
- Leaders support others to develop, implement and evaluate their own solutions to problems.
  - Leadership associated with improved practices for **hand hygiene**, gowning and gloving.
  - **Staff engagement** and hospital leadership are significantly associated with knowledge related to IPC. (Sinkowitz-Cochran et al, 2011)[1]
- Positive leadership behaviours are associated with a **reduced** incidence of pneumonia and urinary tract **infections**. (Houser, 2003)[2]

[1]Sinkowitz-Cochran RL, et al. The associations between organizational culture and knowledge, attitudes, and practices in a multicenter Veterans Affairs improvement initiative to prevent methicillin-resistant *Staphylococcus aureus*. Am J Infect Control. 2012;40(2):138–143.
[2]Houser J. A model for evaluating the context of nursing care delivery. J Nurs Adm. 2003;33(1):39e47.

Key resource

# Characteristics of a leader

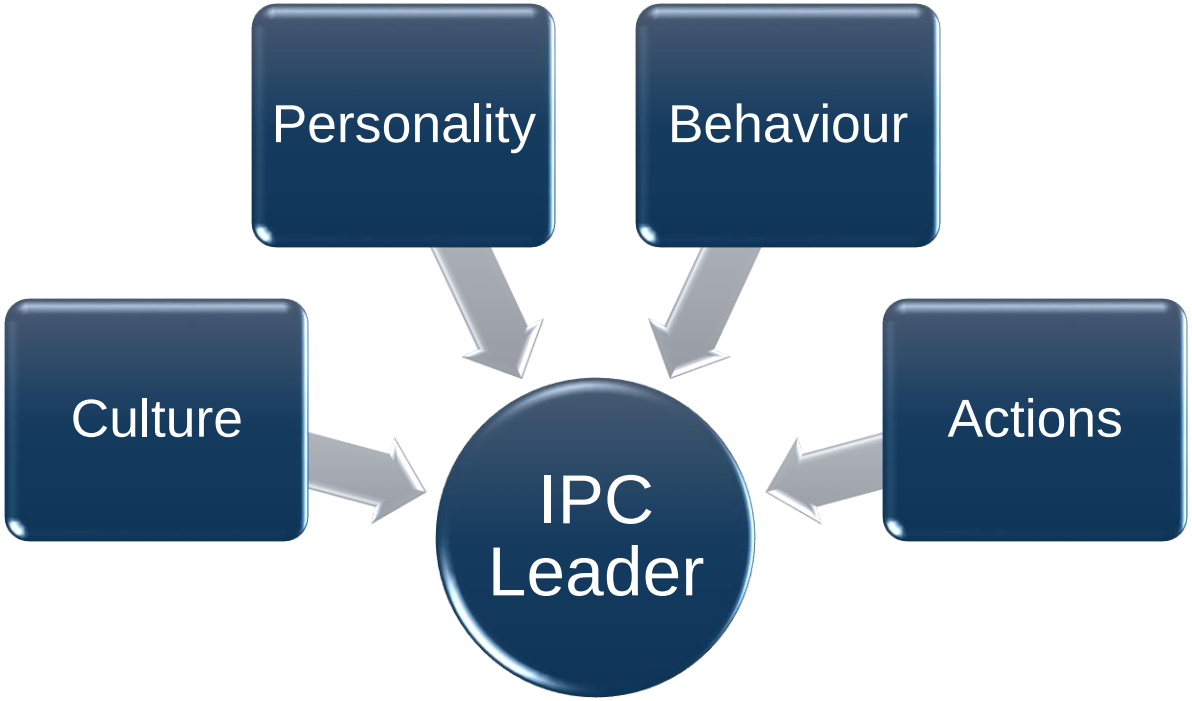
**In your opinion, who is a leader?**




- What are the **traits/**features of a **leader that you know (in real life or a celebrity, politician, sports person)**?
  - which of these do you have as well?
- How does thinking about that particular person make you feel?

Interactive question

# Characteristics of an IPC leader




- Leaders **foster** a culture of **excellence**.
- Leaders **develop** an organizational **vision**.
- Leaders focus on **previewing** and **resolving** challenges that could be opportunities to improve.
- Leaders **inspire**, **encourage**, and **motivate** others to lead.

Key resource

# Situational leadership

**Adaptable leaders**

- Situational leaders **adapt** their **leadership style** to situations.
- Leadership ‘based on a **relationship between the leader**’s supportive and directive behaviour, **and** between the **follower**’s level of development’. (Grimm, 2010)
- Leader’s support requires personal involvement, sustained communication and emotional support.
- Leader’s direction refers to the steering provided by the leader as well as the allocation of follower roles.

Interactive question


mm JW. Effective leadership: making the difference. J Emerg Nurs. 2010;36(1):74-77.

# Transformational leadership

**Visionary leaders**

- They have and **share a vision** for what an organization should be. (Sims, 2009)
- They develop others to **exceed** their **own self-interests** for a higher purpose. (Vinkenburg et al, 2011)
- Leader-follower relationships are based on interactions or exchanges. (Rolfe, 2011)

Interactive question

# Transactional leadership

**Performance-oriented leaders**

- Empowered to **evaluate**, **correct**, and train **subordinates**.
- Performance shaped by punishment or **rewards**.
- Highly visible leader, top of **‘chain of command’**.
- Motivation to be effective and **efficient**.

# IPC leadership in action

**Group work 1:**

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SAMJ IN PRACTICE

CLINICAL UPDATE

## A framework for preventing healthcare-associated infection in neonates and children in South Africa

A Dramowski,[1] MB ChB, DCH, FCPaed (SA), Cert Paed ID, PhD; M F Cotton,[1] MB ChB, DCH, FCPaed (SA), PhD; A Whitelaw,[2] MB ChB, MSc, FCPath (SA) (Micro)

[1] Department of Paediatrics and Child Health, Division of Paediatric Infectious Diseases, Faculty of Medicine and Health Sciences, Stellenbosch University, Cape Town, South Africa
[2] Department of Medical Microbiology, Faculty of Medicine and Health Sciences, Stellenbosch University and National Health Laboratory Service (NHLS), Tygerberg Hospital, Cape Town, South Africa

Corresponding author: A Dramowski (dramowski@sun.ac.za)

Healthcare-associated infection (HAI) is a frequent and serious complication affecting 4 - 8% of hospitalised children and neonates in high-income countries. The burden of HAI in South African (SA) paediatric and neonatal wards is substantial but underappreciated, owing to a lack of HAI surveillance and reporting. Maternal and child health and infection prevention are priority areas for healthcare quality improvement in the National Core Standards programme. Despite increasing recognition in SA, infection prevention efforts targeting hospitalised children and neonates are hampered by health system, institutional and individual patient factors. To ensure safe healthcare delivery to children, a co-ordinated HAI prevention strategy should promote development of infection prevention norms and policies, education, patient safety advocacy, healthcare infrastructure, surveillance and research. We present a framework for SA to develop and expand HAI prevention in hospitalised neonates and children.

S Afr Med J 2017;107(3):192. DOI:10.7196/SAMJ.2017.v107i3.12050

Healthcare-associated infection (HAI) is the most frequent complication of hospitalisation, contributing to morbidity, excess mortality and increased healthcare costs.[1,2] Although the neonatal and paediatric HAI burden is well described in high-income settings (4 - 8% prevalence),[3-5] the HAI burden in most African countries is unquantified. In a meta-analysis of HAI in low-middle-income countries (LMIC), the World Health Organisation (WHO) identified only three studies of neonatal/paediatric HAI from Africa between 1995 and 2008 (none from South Africa (SA)).[6] Prior and subsequent to the WHO meta-analysis, five publications have established HAI risk factors for hospitalised children in African settings, including malnutrition,[7-9] prolonged hospital stay,[7,10] use of indwelling devices,[8,11] paediatric intensive care unit (PICU) admission,[10] blood transfusion,[8,9] young age,[7,10] underlying comorbid diseases, HIV infection, and HIV-exposed, uninfected status.[10]

### HAI epidemiology in hospitalised SA children and neonates

The epidemiology of paediatric and neonatal HAI in SA is poorly documented. Literature describing neonatal HAI is extremely limited, reporting healthcare-associated bloodstream infection (HA-BSI) only; an HA-BSI incidence of 4/1 000 and 14/1 000 patient days was reported from two tertiary hospitals – in Cape Town and Johannesburg, respectively.[12,13] Among paediatric inpatients in Cape Town, HA-BSI rates of 1.6/1 000 patient days were recorded, with excess mortality attributable to hospital- v. community-acquired BSI (25% v. 16%).[14] In 1987, prospective surveillance of two paediatric wards at Chris Hani Baragwanath Hospital, Johannesburg established an HAI prevalence of 14.3%, with a predominance of gastrointestinal and respiratory tract infections.[15] At the PICU at King Edward Hospital, Durban, SA, an HAI prevalence of 43% was reported in 1982.[16] A 1-day point prevalence study of 2 652 adults and children at six Gauteng hospitals established a pooled HAI prevalence of 9.7% for BSI, urinary tract, respiratory tract and surgical site infections. Children had higher HAI rates overall (16.5%), and a greater prevalence of BSI and respiratory tract infections.[17,18] Recent prospective clinical surveillance at Tygerberg Children's Hospital paediatric wards and the PICU documented an HAI prevalence of 24%, with hospital-acquired pneumonia and HA-BSI predominating. HAI incidence density was highest in the PICU (94 v. 22/1 000 patient days in wards).[19] PICU device-associated infection densities were double those reported from PICUs in other LMIC.[9,11] Two-thirds of all in-patient mortality occurred in association with HAI, with crude mortality 6-fold higher (7.4%) than among HAI-unaffected hospitalisations. HAI-affected patients also had three-fold higher rates of hospital readmission within 30 days. HAI events incurred substantial direct costs (ZAR5.6 million) and an excess of 2 275 hospitalisation days, 2 365 antimicrobial days, and 3 575 laboratory investigations in four wards over 6 months.[20]

### The changing landscape of HAI prevention in SA

A national healthcare quality improvement programme launched in 2012 introduced annual facility audits to benchmark public and private institutions against 'national core standards (NCS) for healthcare establishments'.[18] In addition, the Office of Health Standards Compliance was established to guide NCS implementation and to act as a national healthcare licensing and accreditation body. Despite a renewed focus on infection prevention (IP) and HAI surveillance, data on HAI burden and epidemiology in SA are extremely limited. Although the development of IP standards is laudable, much greater resources and technical expertise (in healthcare epidemiology, IP and data management) are required



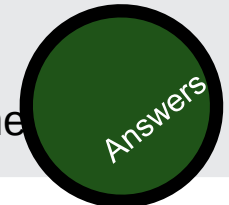
- **Read** the summary document in your group.
- **Discuss the problem** described by the authors. Summarize in writing what you think was the main problem that needed to be addressed.
- **Identify key challenges –** discuss and write down the main challenges to HAI prevention. As you discuss these challenges, think about the core components and the multimodal strategy.
- Discuss whether you have faced similar challenges.
- Choose three of the challenges that you/members of your group have also faced and write down what action was taken to address these challenges in your own place of work.

Group work

Dramowski A, Cotton MF, Whitelaw A. A framework for preventing healthcare-associated infection in neonates and children in South Africa. S Afr Med J. 2017;107(3):192-195.

# Group work 1 – how the authors addressed the challenges

| Challenge | Action |
|---|---|
| Policies and guidelines | • IPC norms and standards for outpatient and inpatient settings developed.<br>• IPC guidelines for paediatric/neonatal wards and clinics developed. |
| Education, training and advocacy for patient safety | • A national core curriculum on IPC for undergraduates developed.<br>• In-service training for all HCWs initiated.<br>• IPC champions to lead education, advocacy and research established.<br>• Advocacy and buy-in from managers and departmental heads to prioritize safe care of children agreed upon.<br>• Integration of IPC with existing structures, for example, quality improvement committees. |
| Provisions and infrastructure | • Building norms for new and renovated neonatal and paediatric services established.<br>• Basic provisions for HAI prevention, for example, soap, water, alcohol-based handrub, personal protective equipment, agreed upon. |
| Surveillance and research | • Recommendations for HAI surveillance methods, frequency and targets implemented.<br>• Outbreak reporting established.<br>• Addition of HAI to existing morbidity and mortality registers.<br>• identification of key research questions to improve HAI impleme |



# Making improvement with limited resources

**Refer to student handbook**

- Damani highlights three approaches to improve IPC in settings with limited resources:
  - focus on improving **no-cost** practices
  - focus on improving **low-cost** practices
  - **stop wasteful and unnecessary** practices.
- These three approaches have the potential to save money, time and improve the quality and safety of health care.

Damani N. Simple measures save lives: an approach to infection control in countries with limited resources. J Hosp Infect. 2007;65(Suppl. 2):151-154.

Interactive question

# Further reading & references


A guide to the implementation of the WHO multimodal hand hygiene improvement strategy. Geneva: World Health Organization; 2009.

(http://www.who.int/gpsc/5may/Guide_to_Implementation.pdf)

House RJ, et al. Understanding cultures and implicit leadership theories across the globe: an introduction to project GLOBE. J World Business. 2002;37(1): 3-10.

Sinkowitz-Cochran RL, et al. The associations between organizational culture and knowledge, attitudes, and practices in a multicenter Veterans Affairs quality improvement initiative to prevent methicillin-resistant *Staphylococcus aureus*. Am J Infect Control. 2012;40(2):138–143.

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Grimm JW. Effective leadership: making the difference. J Emerg Nurs. 2010;36(1):74-77.

Crevani L, Lindgren M, Packendorff J. Leadership, not leaders: on the study of leadership as practices and interactions. Scand J Management. 2010;26(1):77-86.ims.

Sims HP, Faraj S, Yun S. When should a leader be directive or empowering? How to develop your own situational theory of leadership. Business Horizons. 2009;52(2):149-158.

# Further reading & references


Vinkenburg CJ, et al. An exploration of stereotypical beliefs about leadership styles: is transformational leadership a route to women's promotion? The Leadership Quarterly. 2011;22(1):10-21..

Rolfe P. Transformational leadership theory: what every leader needs to know. Nurse Leader. 2011;9(2):54-57.

Bass BM. The Bass handbook of leadership: theory, research, and managerial applications. Fourth edition. New York, NY: Free Press; 2008.

Palmer R, Rayner H, Wall D. Multisource feedback: 360-degree assessment of professional skills of clinical directors. Health Serv Manage Res. 2007;20(3);183-188.

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Briggs I, Myers P. Gifts differing: understanding personality type. Mountain View, CA: Davies-Black Publishing; 1995.

Carroll B, Ford J, Taylor S. Leadership. Contemporary critical perspectives. London: Sage Publications Ltd.; 2015.

Damani N. Simple measures save lives: an approach to infection control in countries with limited resources. J Hosp Infect. 2007; 65(S1):151-154.

# Session 3:

World Health Organization

## Implementation strategies and behavioural change

# Competencies

- Describe key IPC implementation strategies including considerations of behavioural change, system change, multimodal strategies and campaigning.
- Lead the development and implementation of behavioural components related to IPC programmes.
- Evaluate the effectiveness of behavioural interventions and components related to an IPC programme.

# Learning objectives

- Define implementation as well as implementation science.
- Describe factors supporting successful implementation of interventions.
- Recognize implementation components in available WHO materials.
- Critique experiences reporting on implementation of IPC interventions.
- Be familiar with individual, team, organization and societal factors influencing implementation.

# Key points

The WHO core components are a **road map** to indicate how IPC can effectively prevent harm due to HAI and AMR.

**Implementation, including effective leadership,** is key to translate guidelines into practices.

- ***Not always easy and takes time.***
- **Multimodal**/multidisciplinary strategies support implementation (monitoring approaches; patient-centred; **integrated** within clinical procedures; innovative and **locally adapted; tailored** to specific cultures and resource level).
- Understanding quality improvement methodology is important.

Key resource

# Implementation and behavioural change strategies

**Why these are important for successful IPC**

**Quality improvement** interventions in IPC require individual, team and organizational **behaviour change.**

Understanding **cultural, behavioural, organizational and clinical factors** influencing behaviour change is essential for the successful implementation of guidelines and interventions.

Several psychological frameworks have been used to understand how the different factors interplay.

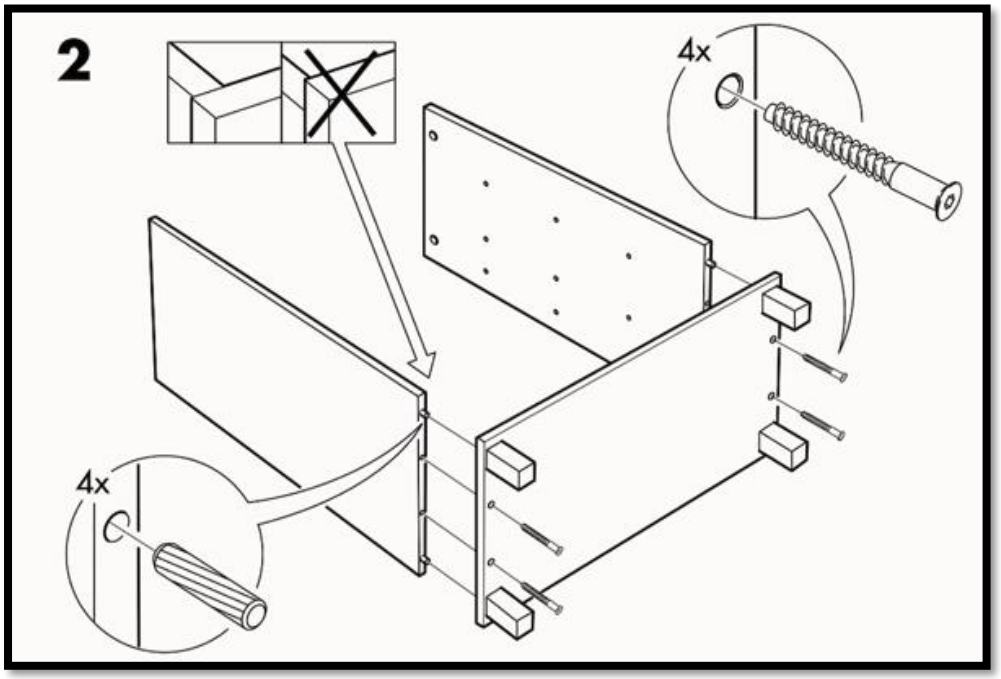
The implementation of guidelines into practice

Behaviour change through multimodal strategies

Interactive question

# What do we mean by ‘implementation’?

**Implementation is** the translation of **research** evidence **into** clinical, organizational, professional **practice**. (Ferlie, 2000)



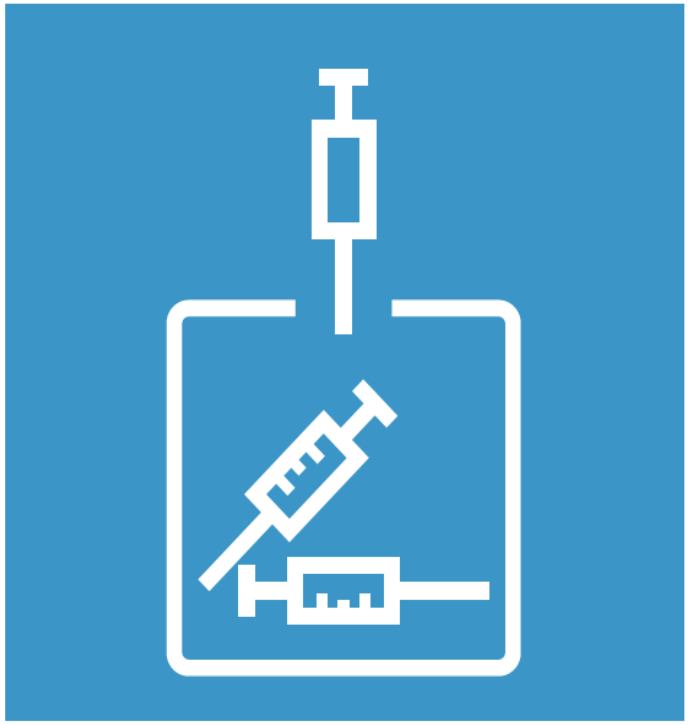

Ferlie E, Fitzgerald L, Wood M. Getting evidence into clinical practice: an organisational behaviour perspective. J Health Serv Res Policy. 2000;5(2):96–102.

# What is required for successful implementation?

World Health Organization

## Context

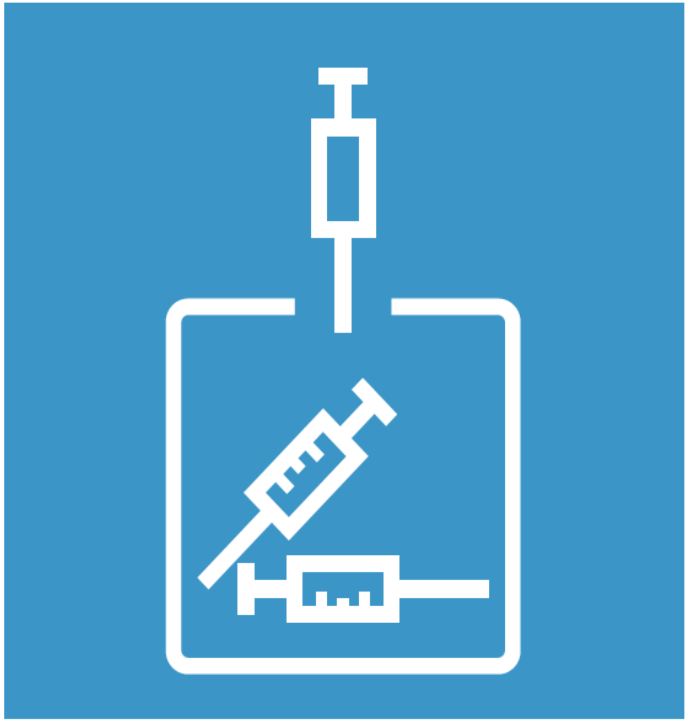
- **Inner context**
- Local and organizational
  - leadership support
  - culture
  - organizational priorities
- **Outer context**
  - policy drivers and priorities
  - incentives and mandates
  - networks



**How does an understanding of context help implement a sharps safety improvement?**

Group work

# What is required for successful implementation?



**Inner context**

- Do organizational leaders believe there is a problem?
- Do leaders prioritize sharps safety?

**Outer context**

- Are there national guidelines or mandates on sharps safety?
- Is there a national campaign to reduce sharps?

Answers

# What is required for successful implementation?

World Health Organization

## Context

- Inner context
- Local and organizational
  - leadership support
  - culture
  - organizational priorities
- Outer context
  - policy drivers and priorities
  - incentives and mandates
  - networks

## Innovation

- Added benefit of the intervention
- Ease of use
- Evidence
  - research
  - clinical
  - experiential

# What is required for successful implementation?

World Health Organization

## Context

- Inner context
- Local and organizational
  - leadership support
  - culture
  - organizational priorities
- Outer context
  - policy drivers and priorities
  - incentives and mandates
  - networks

## Innovation

- Added benefit of the intervention
- Ease of use
- Evidence
  - research
  - clinical
  - experiential

## Recipients

- Motivation
- Values/beliefs
- Goals
- Skills
- Knowledge
- Time
- Resources
- Support
- Opinion leaders
- Power
- Authority

# What is required for successful implementation?

World Health Organization

## Context

- Inner context
- Local and organizational
  - leadership support
  - culture
  - organizational priorities
- Outer context
  - policy drivers and priorities
  - incentives and mandates
  - networks

## Innovation

- Added benefit
- Ease of use
- Evidence
  - research
  - clinical
  - experiential

## Recipients

- Motivation
- Values/beliefs
- Goals
- Skills
- Knowledge
- Time
- Resources
- Support
- Opinion leaders
- Power
- Authority

Social, cultural and organizational factors

Process of implementation (for example, plan, evaluate and reflect)

Key resource

# Practical examples: core component 1 (IPC programmes)

Extracts from the Interim Practical Manual supporting national implementation of the WHO Guidelines on core components of infection prevention and control programmes

**"Legislation has been a critical part to building recognition as many won't consider IPC and its value until there is a norm or requirement for an IPC programme."**

IPC Professional from Africa

**Outer context**

**"We had success in our IPC programme using a multimodal strategy and strong leadership from the highest levels of the health authority. Acting upon local data with evidence-based interventions and documenting results has been key to obtain local acceptance and integration to routine hospital health care."**

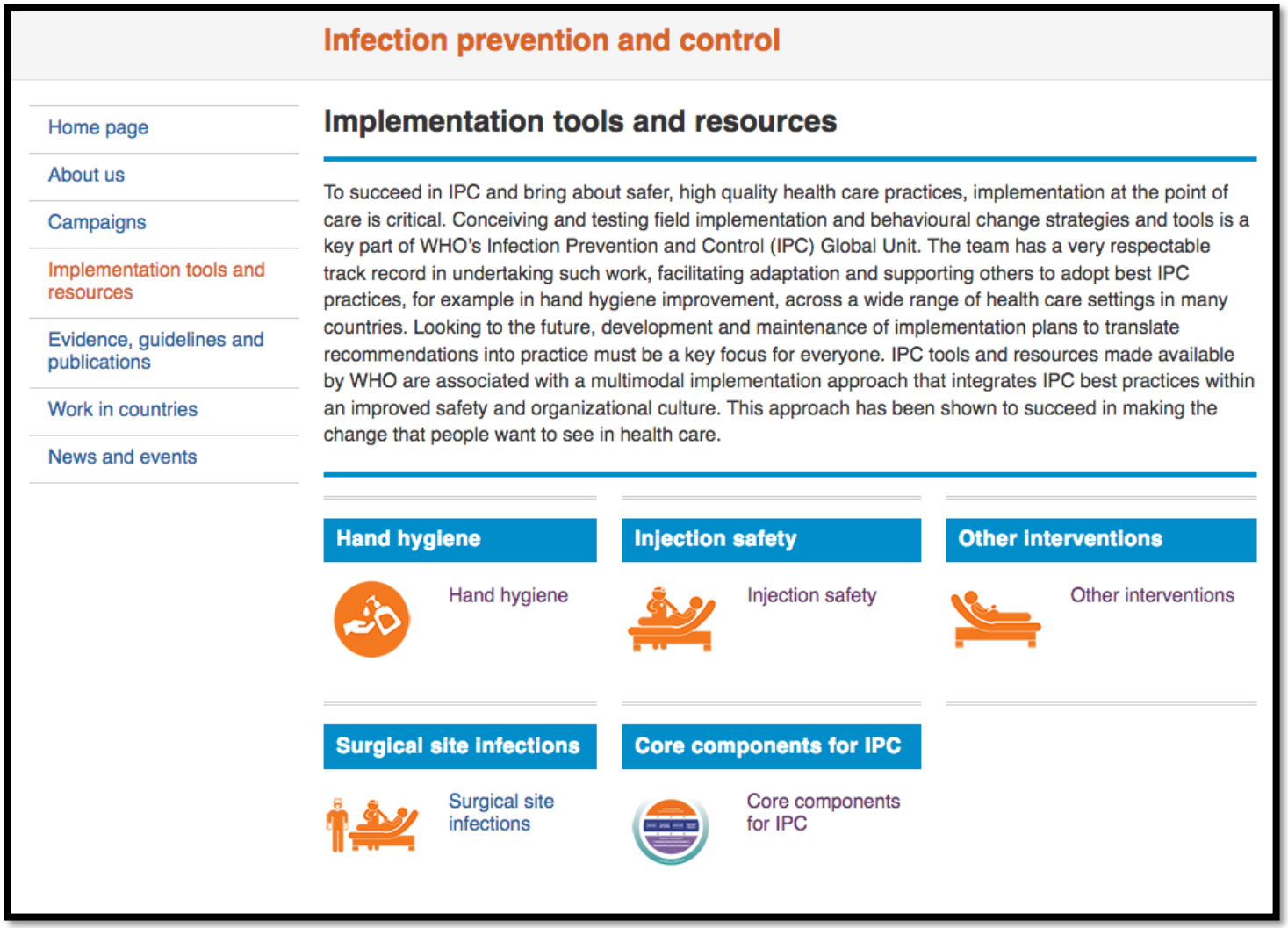
IPC National Lead from Chile

**Inner context, innovation and recipients**

http://www.who.int/infection-prevention/tools/core-components/cc-implementation-guideline.pdf?ua=1

# WHO implementation aids

World Health Organization




http://www.who.int/infection-prevention/tools/en/

# Hand hygiene multimodal improvement strategy

World Health Organization

## Supporting implementation

**ONE System change**
Alcohol-based handrubs at point of care
and access to safe continuous water supply, soap and towels

+

**TWO Training and education**
Providing regular training to all health-care workers

+

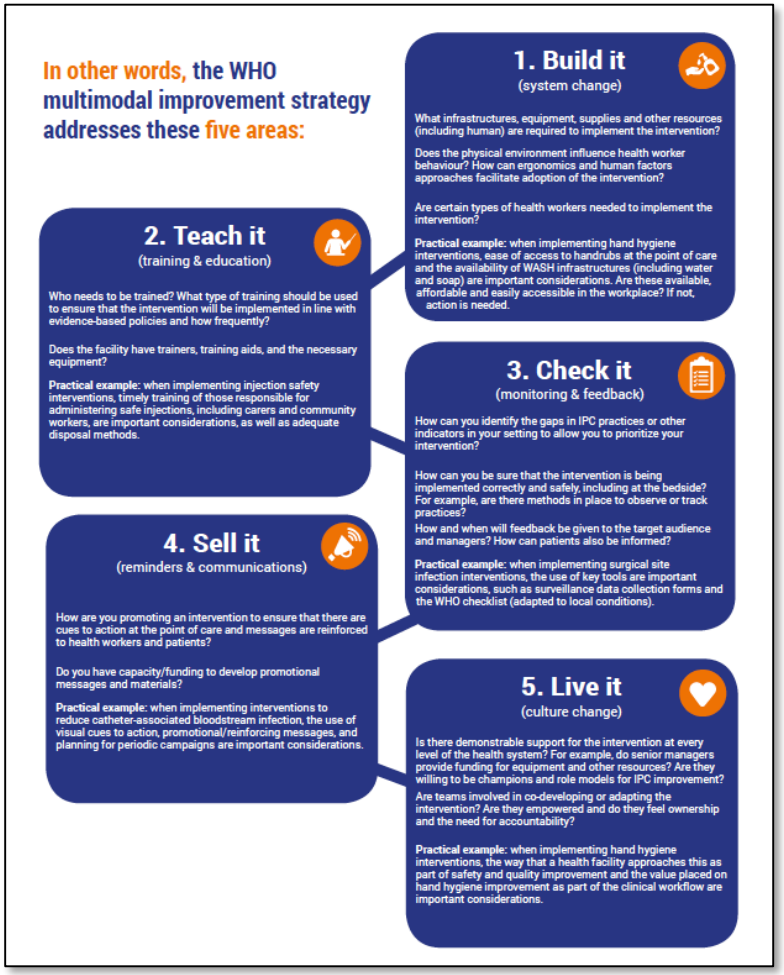
**THREE Evaluation and feedback**
Monitoring hand hygiene practices, infrastructure, perceptions, & knowledge, while providing results feedback to health-care workers

+

**FOUR Reminders in the workplace**
Prompting and reminding health-care workers

+

**FIVE Institutional safety climate**
Individual active participation, institutional support, patient participation




**Handout 3**

# Example of successful implementation using a multimodal strategy

Articles

## Global implementation of WHO's multimodal strategy for improvement of hand hygiene: a quasi-experimental study

Benedetta Allegranzi, Angèle Gayet-Ageron, Nizam Damani, Loséni Bengaly, Mary-Louise McLaws, Maria-Luisa Moro, Ziad Memish, Orlando Urroz, Hervé Richet, Julie Storr, Liam Donaldson, Didier Pittet

**Summary**

**Background** Health-care-associated infections are a major threat to patient safety worldwide. Transmission is mainly via the hands of health-care workers, but compliance with recommendations is usually low and effective improvement strategies are needed. We assessed the effect of WHO's strategy for improvement of hand hygiene in five countries.

**Methods** We did a quasi-experimental study between December, 2006, and December, 2008, at six pilot sites (55 departments in 43 hospitals) in Costa Rica, Italy, Mali, Pakistan, and Saudi Arabia. A step-wise approach in four 3–6 month phases was used to implement WHO's strategy and we assessed the hand-hygiene compliance of health-care workers and their knowledge, by questionnaire, of microbial transmission and hand-hygiene principles. We expressed compliance as the proportion of predefined opportunities met by hand-hygiene actions (ie, handwashing or hand rubbing). We assessed long-term sustainability of core strategy activities in April, 2010.

**Findings** We noted 21 884 hand-hygiene opportunities during 1423 sessions before the intervention and 23 746 opportunities during 1784 sessions after. Overall compliance increased from 51·0% before the intervention (95% CI 45·1–56·9) to 67·2% after (61·8–72·2). Compliance was independently associated with gross national income per head, with a greater effect of the intervention in low-income and middle-income countries (odds ratio [OR] 4·67, 95% CI 3·16–6·89; p<0·0001) than in high-income countries (2·19, 2·03–2·37; p<0·0001). Implementation had a major effect on compliance of health-care workers across all sites after adjustment for main confounders (OR 2·15, 1·99–2·32). Health-care-workers' knowledge improved at all sites with an increase in the average score from 18·7 (95% CI 17·8–19·7) to 24·7 (23·7–25·6) after educational sessions. 2 years after the intervention, all sites reported ongoing hand-hygiene activities with sustained or further improvement, including national scale-up.

**Interpretation** Implementation of WHO's hand-hygiene strategy is feasible and sustainable across a range of settings in different countries and leads to significant compliance and knowledge improvement in health-care workers, supporting recommendation for use worldwide.

**Funding** WHO, University of Geneva Hospitals, the Swiss National Science Foundation, Swiss Society of Public Health Administration and Hospital Pharmacists.

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See Comment page 824



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### Introduction

Health-care-associated infection is one of the most frequent issues of patient safety worldwide.[1] According to WHO estimates, hundreds of millions of patients are affected each year, leading to substantial morbidity, mortality, and financial losses for health systems.[2,3] On average, health-care-associated infection affects at least 7% of patients admitted to hospital in high-income countries[4] and about 15% of those in low-income and middle-income countries.[2,3] More than 4 million patients are affected every year in Europe, and 37 000 deaths occur because of this infection.[5] According to the US Centers for Disease Control and Prevention, in 2002, at least 1·7 million episodes of health-care-associated infection arose in patients admitted to hospital in the USA, leading to almost 100 000 deaths.[6] Annual costs were estimated to be as high as €7 billion in Europe and US$6·8 billion in the USA.[7]

Hand hygiene is the most effective measure to prevent pathogen transmission during health-care delivery.[8,9] Compliance of health-care workers with best practices varies between settings and countries, but is usually low and insufficient to ensure patient safety.[7,10] WHO issued draft guidelines in 2006 to provide evidence and recommendations for improvement of hand hygiene.[7] These guidelines were based on successful experiences showing a consequent reduction in health-care-associated infection at institutional and regional levels.[9,10] Because dissemination of guidelines alone is not enough to change practices,[8] WHO developed a multimodal implementation strategy and accompanying methods for hand hygiene,[11] which were pilot tested in hospitals worldwide. We assessed the effect of implementation of WHO's hand-hygiene strategy on a range of indicators, including strategy feasibility and adaptability to the local context and available resources.

### Methods

#### Study design

We did a quasi-experimental study between December, 2006, and December, 2008, at six pilot sites (55 departments in 43 hospitals) in Costa Rica, Italy, Mali, Pakistan, and Saudi Arabia (table 1). We implemented WHO's strategy



## Context

- December 2006-08, 55 departments in 43 hospitals in Costa Rica, Italy, Mali, Pakistan, and Saudi Arabia.

## Innovation

- WHO hand hygiene multimodal strategy.

## Recipients

- Intervention launch endorsed by the Minister of Health.
- Increased dispensers at point of care.

Allegranzi B, et al. Global implementation of WHO's multimodal strategy for improvement of hand hygiene: a quasi-experimental study. Lancet Infect Dis. 2013;13(10):843-851.

# Revisiting wasteful and unnecessary practices

**(Refer to the student handbook for the full list)**

- Routine environmental swabbing
- Routine use of disinfectants for environmental cleaning
- Unnecessary use of injections
- Overuse of antibiotics
- Overuse of urinary catheters

These are ALL behaviours

# Understanding behaviour to support implementation

World Health Organization

**The three key steps**

1. IDENTIFY BEHAVIOUR
2. DESIGN INTERVENTION
3. IMPLEMENT INTERVENTION

- Successful implementation needs **changes in the behaviour** of individuals, teams and organizations.
- Different **theories** have tried to explain the most important components of behaviour change.
- Lasting behaviour change needs an assessment of the factors influencing individuals and organizations.

# What would you like to do?

**1. Identify behaviour that needs addressing**

1. IDENTIFY BEHAVIOUR

Can be used for any IPC-related behaviour to identify what action is needed to address capability, opportunity and motivation of health workers

CAPABILITY → Psychological/physical ability

MOTIVATION → Plan, believe, want

OPPORTUNITY → Physical, environmental, social

Interactive question

Michie S, van Stralen MM, West R. The behaviour change wheel: a new method for characterising and designing behaviour change interventions. Implement Sci. 2011;;6:

# Hand hygiene example

**How can we influence HCW capability, motivation and opportunity to do the right thing?**

1. IDENTIFY BEHAVIOUR

## MOTIVATION

- Do HCWs believe the evidence that hand hygiene works?
- Is there a campaign and reminders to promote hand hygiene?

## CAPABILITY

- Do HCWs know the fi moments for hand hygiene?
- Do they know the correct technique?

## OPPORTUNITY

- Is handrub available at the point of care?
- Is here a system for replenishing empty bottles?
- Do the sinks work?

Answers

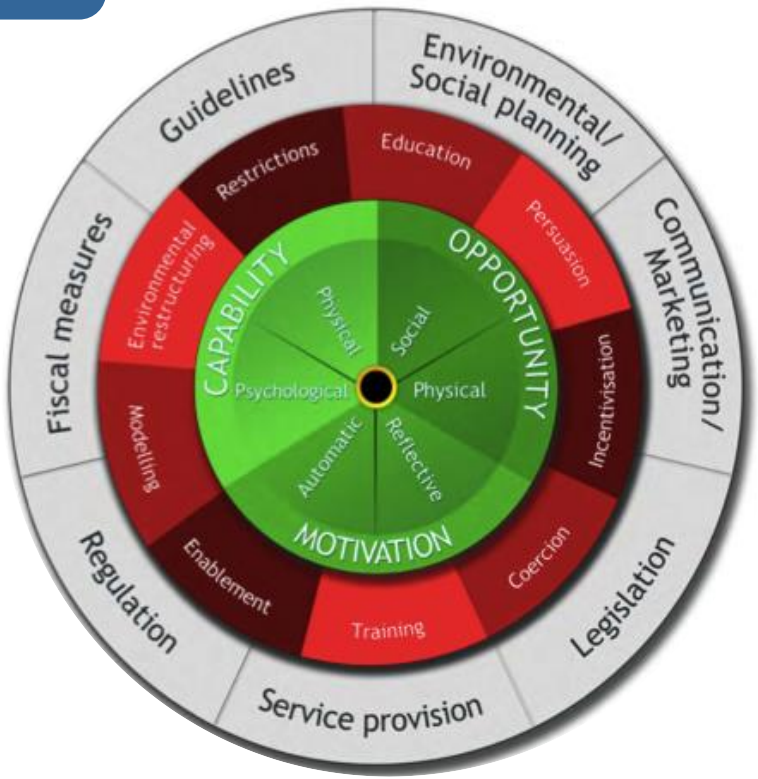
# What would you like to do?

**2. Design your intervention**

1. IDENTIFY BEHAVIOUR

2. DESIGN INTERVENTION






Michie S, van Stralen MM, West R. The behaviour change wheel: a new method for characterising and designing behaviour change interventions. Implement Sci. 2011;6:42.

# What would you like to do?

**Focus on the 'red' part of the behaviour change wheel**

2. DESIGN INTERVENTION

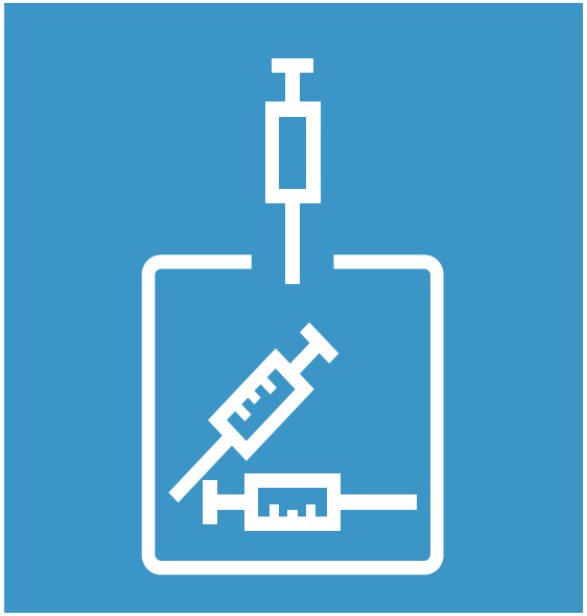

Education = knowledge
Persuasion = communication
Incentives = reward
Coercion = punishment
Training = skills
Restriction = limits
Environmental restructuring
Modelling = role model
Enablement = barriers

Michie S, van Stralen MM, West R. The behaviour change wheel: a new method for characterising and designing behaviour change interventions. Implement Sci. 2011;;6:42.

# What would you like to do?

**Identifying measures in optimal injection safety**

## 2. DESIGN INTERVENTION



| Measure to be used | Yes/No |
|---|---|
| **Education** = knowledge | |
| **Persuasion** = communication | |
| **Incentives** = reward | |
| **Coercion** = punishment | |
| **Training** = skills | |
| **Restriction** = limits | |
| **Environmental restructuring** | |
| **Modelling** = role model | |
| **Enablement** = barriers | |

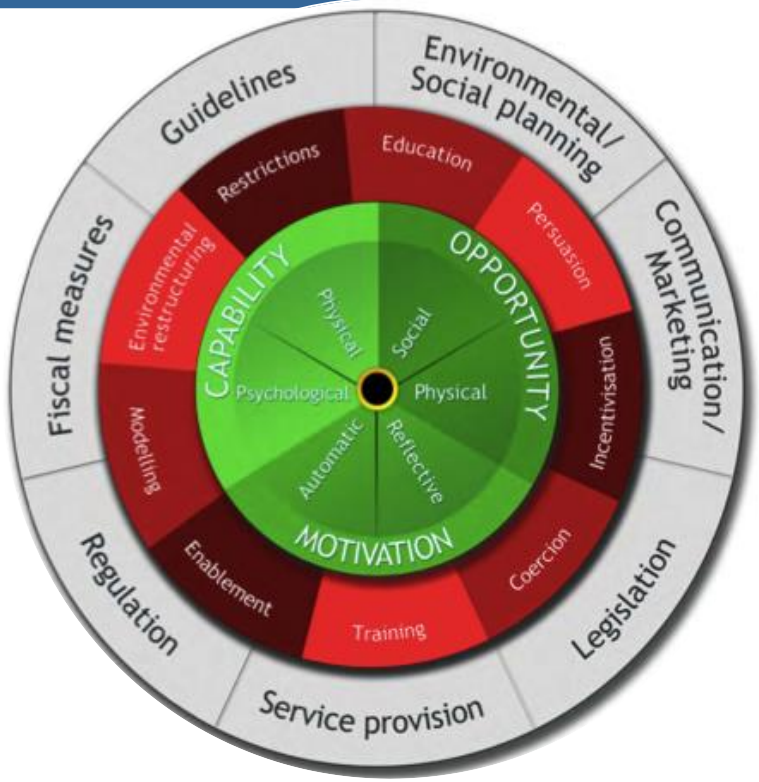
Interactive question

Michie S, van Stralen MM, West R. The behaviour change wheel: a new method for characterising and designing behaviour change interventions. Implement Sci. 2011; 3;

# What would you like to do?

**Focus on the 'grey' part of the behaviour change wheel**

2. DESIGN INTERVENTION



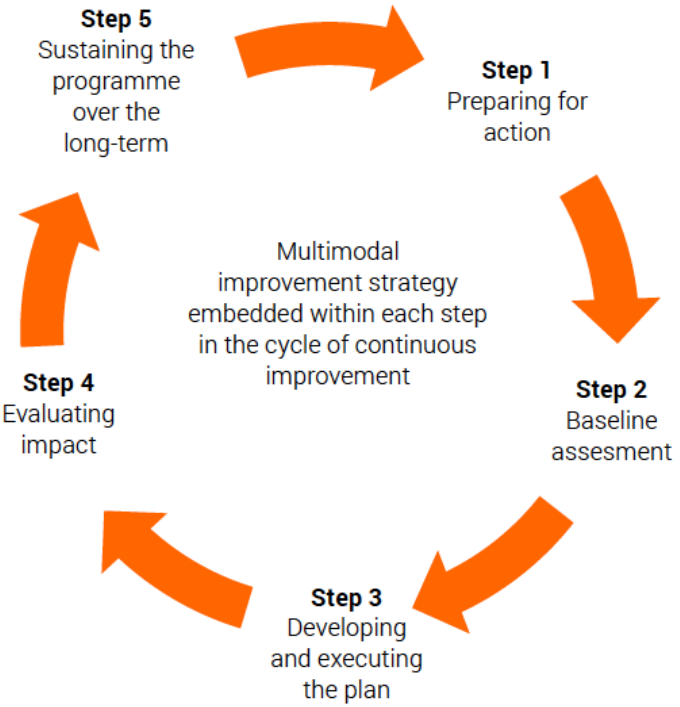

Communication/marketing
Legislation
Service provision
Regulation
Fiscal measures
Guidelines
Environmental/social planning

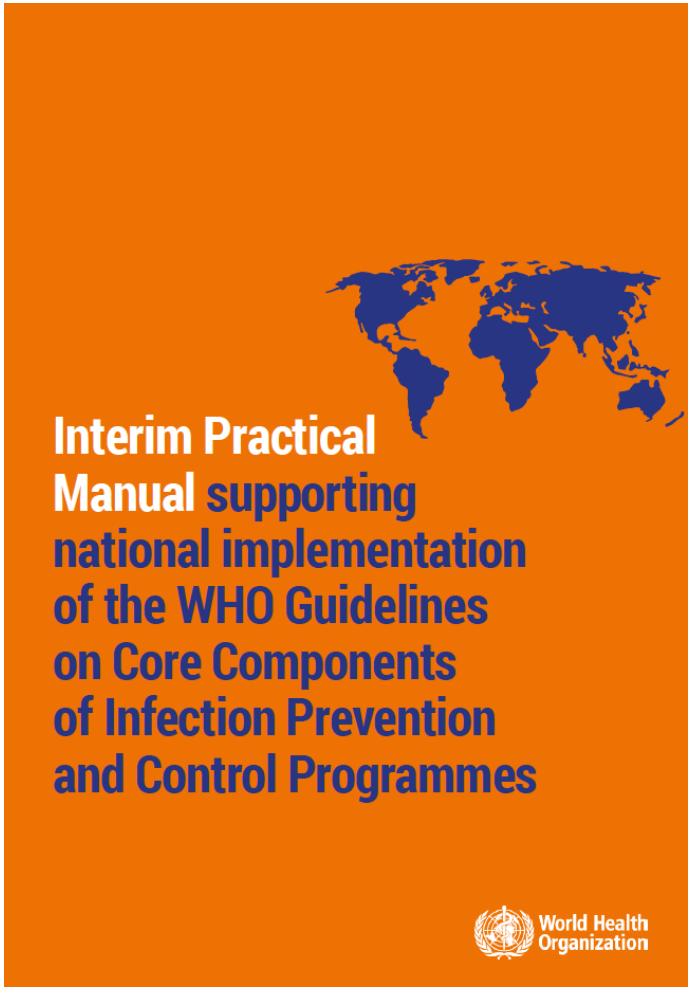
Michie S, van Stralen MM, West R. The behaviour change wheel: a new method for characterising and designing behaviour change interventions. Implement Sci. 2011;;6:42.

# Implement intervention

## The WHO five-step cycle

3. IMPLEMENT INTERVENTION




Based on the validated approach to implementation developed in relation to the WHO guidelines on hand hygiene in health care (2009)

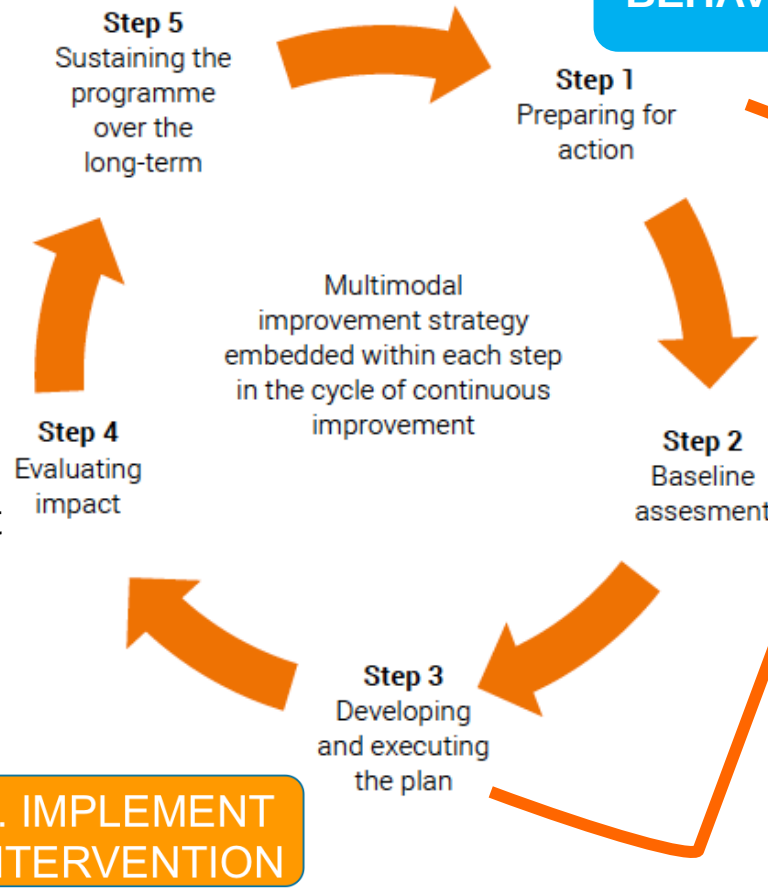
# The five implementation steps

| Step | Actions |
|---|---|
| **1. Preparing for action** | Ensure that all of the prerequisites that need to be in place for success are addressed, that is, planning and coordination of activities, identification of roles and responsibilities and the necessary resources (both human and financial) and infrastructures, and identifying key leaders and 'champions', including an overall coordinator and deputy. |
| **2. Baseline assessment** | Conduct an exploratory baseline evaluation of the current situation, including identification of existing strengths and weaknesses. |
| **3. Developing and executing an action plan** | Use the results of the baseline assessment to develop and execute an action plan based around a multimodal improvement strategy. |
| **4. Evaluating impact** | Conduct a follow-up evaluation to assess the effectiveness of the plan with a focus on its impact, acceptability and cost-effectiveness. |
| **5. Sustaining the programme over the long term** | Develop an ongoing action plan and review cycle to support the long-term impact and benefits of the programme and the extent to which it is embedded across the health system and country, thus contributing to its overall impact and sustainability. |

# How this fits together

**1. IDENTIFY BEHAVIOUR**

- Context
- Innovation
- Recipients




- National & facility IPC assessment tools

**2. DESIGN INTERVENTION**

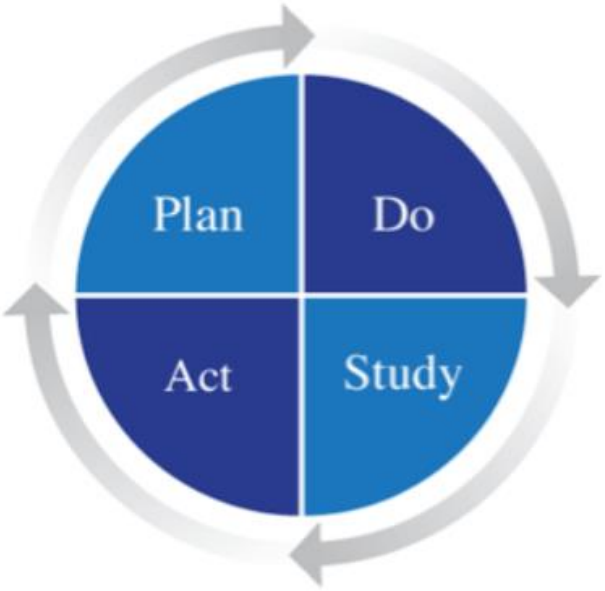

- National and facility IPC assessment tools

**3. IMPLEMENT INTERVENTION**

- Project management

# The use of quality improvement methods

**(For example, Plan-Do-Study-Act [PDSA] cycle)**




PDSA Cycle
The W. Edwards Deming Institute

PDSA cycles are ideal for small, frequent tests of ideas before making larger, system-wide changes.

They can be used in adjunct with other quality improvement approaches.

The United States Institute for Healthcare Improvement incorporates PDSA cycles as part of its model to accelerate improvement.

*PDSA Cycle graphic used courtesy of The W. Edwards Deming Institute®

W. Edwards Deming, *The New Economics for Industry, Government, Education,* ©1994 The W. Edwards Deming Institute, published by The MIT Press, figure 13, p. 132.
Taking action: steps 4 & 5 in twinning partnerships for Improvement. Geneva: World Health Organization; 2018

Interactive question

# IPC implementation in practice

**Group work 2**

A quality improvement project to improve the accuracy in reporting hospital acquired infections in post cesarean section patients in a district hospital in Rwanda

Adeline Nyiratuza, Rex Wong, Eva Adomako, Jean D'Amour Habagusenga, Kidest Nadew, Florien Hitayezu, Fabienne Nirere, Emmanuel Murekezi and Manassé Nzayirambaho

Abstract

**Purpose** – *Hospitals are responsible for protecting the well-being of their patients and staff. To do so, accurate information is needed for the hospital to make appropriate decisions and allocate resources efficiently. This study aims to describe the implementation process of a surveillance system to reduce hospital-acquired infection (HAI) reporting errors in the maternity unit of a district hospital in Rwanda.*

**Design/methodology/approach** – *The team adapted an evidence-based tool to identify and report HAI, provided training to staff and distributed reporting responsibilities equally between the maternity staff to improve accuracy in HAI reporting.*

**Findings** – *The intervention successfully reduced the reporting discrepancy of HAI from 6.5 to 1.9 per cent: p < 0.05.*

**Practical implications** – *This case study described the implementation process of a surveillance system using strategic problem solving to reduce HAI reporting errors. The results can inform hospitals in similar settings of the steps to follow to implement a cost-neutral HAI surveillance system to reduce reporting errors. The accurate data will enable the hospital to take corrective measures to address HAI in the future.*

**Originality/value** – *The results will inform hospitals in similar settings of steps to follow to implement a cost-neutral HAI surveillance system using the SPS approach to reduce reporting errors.*

**Keywords** *Quality improvement, Infection prevention and control, Data drive decision making, Hospital acquired infections surveillance, Report accuracy*

**Paper type** *Case study*

Background

Hospital-acquired infection (HAI) are a worldwide problem (Conroy *et al.*, 2012) with HAI rates as high as 65 per cent in low- to middle-income countries (Hospital Coordinator Group, 2006; Jroundi *et al.*, 2007; Kallel *et al.*, 2006). HAIs have been shown to negatively impact patient's health outcomes, increase emotional stress, result in higher economic burden for both the patient and the health-care system (Public Health Agency of Canada, 2012; Weinshel *et al.*, 2015; Tietjen *et al.*, 2003). To protect the well-being of their patients, hospital leadership is called upon to develop and implement a continuum of cost-effective and efficient interventions to prevent HAIs. This is particularly true in developing countries where constraints in resources are common (Allegranzi and Pittet, 2008; Nyamogoba and Obala, 2002; Orrett *et al.*, 1998).

Because resource allocation decisions must be made carefully, using relevant data is a crucial element in the decision-making process (Beck *et al.*, 2015). Studies have shown that interventions which are designed based on evidence are more likely to produce the desired

What **behaviour** required changing?

What was the **intervention** implemented?

- Could you identify **context, innovation** and **recipients**?

How was **impact** measured?

What **leadership skills** were used to resolve the challenges?

Group work

Nyiratuza A et al, (2016) "A quality improvement project to improve the accuracy in reporting hospital acquired infections in post cesarean section patients in a district hospital in Rwanda", On the
Issue: 4, pp.319-326,

# Summary answers

| Question | Sample answer |
|---|---|
| **Behaviour** | Under-reporting of HAI. At the individual level, there was only one nurse. At the team level, a team approach was absent. At the organizational level, the organization did not value data. |
| **Intervention** | • **Interventions:** new ways of reporting; new and standardized definitions; new tools; validation teams; training; guidelines.<br>• **Context:** leadership support; buy-in of senior managers; open culture; readiness to change; organizational priority.<br>• **Innovation:** used existing validated tools – tool acceptance; tools easy to use; tools based on research.<br>• **Recipients:** team approach; those with power/authority mandated the change (chief nursing officer, head of maternity); staff motivated; staff familiar with resources/tools |
| **Impact measurement** | Used quantitative indicators, that is, the difference between HAI rates detected through routine unit reports and the validation team. |
| **Leadership skills used** | Elements of transformational and transactional leadership st<br>- engagement, involvement, communication to secure buy-in,<br>continuous follow-up. |

Answers

# Key literature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WHO. Guidelines on core components of infection prevention and control programmes at the national and acute health care facility level. 2016.
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# Session 4:

World Health Organization

## Effective communication and advocacy

# Competencies

- Advocate for the use of effective communication approaches to facilitate multidisciplinary interactions.
- Source or support development of suitable IPC communication resources for citizens, users and HCWs.
- Encourage active listening and use right language to encourage constructive multidisciplinary discussions.
- Demonstrate communication values that foster building or strengthening multidisciplinary relations.
- Communicate effectively with key external stakeholders about IPC recommendations.

# Learning objectives

- Define communication.
- Explain importance of communication towards optimal IPC.
- List components of the communication process.
- Describe communication channels frequently used in IPC.
- Select and apply suitable communication approaches to different real-life scenarios.
- Define conflict.
- Describe skills and behaviours that contribute to optimal conflict resolution.

# Key points

- **Effective communication is** a critical part of IPC leadership. Many IPC situations require effective interpersonal communication, for example:
  - implementing a new innovation
  - dealing with infection outbreaks, epidemics, emergencies…
- Providing **information** and **modifying behaviours** of professionals and patients demands effective communication.

Key resource

# What is communication?

**The deliberate or accidental transfer of information**

Essentially, communication is Likely to include **thoughts** or **feelings**. (Pearson J et al, 2000)

Good communication would allow the parties involved to speak and be listened to without interruption, ask questions, and express thoughts in an understandable manner for all individuals or groups involved.

Pearson J, Nelson P. Introduction to human communication: understanding and sharing. Boston, MA: McGraw-Hill; 2000.

# Using communication skills in IPC

- Can you think of any IPC situation where you had to use communication skills?
- What worked well and what was challenging?

Interactive question

# Using communication skills in IPC

Can you think of any IPC situation where you had to use communication skills?

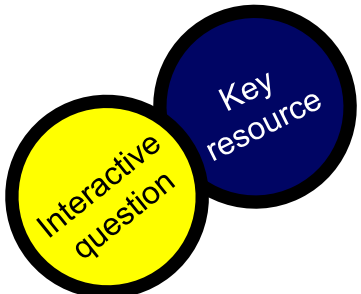
- Developing leaflets for patients and family members or staff.
- Leading multidisciplinary teams during outbreak investigations.
- Reporting to hospital management on performance indicators.
- Responding to journalists about hospital performance.
- Presenting a successful hand hygiene programme at a conference.
- Advocating for more resources (including an IPC budget).

# Essential components of communication

**Seven key elements**

**Seven key elements** are essential in the process of communicating information.

1. People involved
2. Message(s) sent and/or perceived
3. Channel(s) used
4. Amount of ‘noise’ present
5. Context where communication happens
6. Feedback sent in response
7. Effect on the people involved



# Communication channels

(Not exhaustive)

- Direct communication
- Practice regulations
- Education
- **SMS**
- Mass media
- Telephone communication
- Meetings
- Policy, guidelines
- Care pathways
- Information packs
- Handbooks
- Formal education
- Informal training
- E-learning systems
- Intranet/Internet
- E-mail
- Bleep
- **Social networks**
- Radio
- Internet
- Banners/posters

# Communication channels

**Which channel works best in the following situations?**

- A new type of urinary catheter is going to be used from now on in your facility.
- A surgeon had a sharps injury whilst operating on a patient with a bloodborne virus and she is worried about her career.
- A peer IPC focal person would like to meet and discuss creating a network of IPC focal persons in the country.
- WHO has launched a new campaign on IPC and AMR and you want to launch in the facility/district/nationally.

# Communication channels

**Sample answers**

| Situation | Channel |
|---|---|
| A new type of urinary catheter is going to be used from now on in your facility. | Meetings, guidelines and standard operating procedures, training (formal and informal), Grand Rounds, posters. |
| A surgeon had a sharps injury whilst operating on a patient with a bloodborne virus and she is worried about her career. | Direct face-to-face communication, telephone. |
| A peer IPC focal person would like to meet and discuss creating a network of IPC focal persons in the country. | Direct face-to-face communication. |
| WHO has launched a new campaign on IPC and AMR and you want to launch in the facility/district/nationally. | Meeting with managers to secure agreement, handbooks and advocacy materials, videos, mass media, radio, social media, intranet, posters/banners. |

Answers

# Managing conflicts in IPC

**Introducing change may sometimes result in conflict**

- Conflict and tensions are **natural**, routine **situations** in the lives of HCWs and organizations.
- Conflict is “a dynamic process between individuals and/or groups as they experience **negative emotional reactions** to perceived **disagreements** and **interference** with the attainment of goals”. (Barki & Hartwick, 2004)
- The anticipation of conflict and its effect on people, teams, organizations are much more negative than conflict itself.

Interactive question


www.pixabay.com (CC0 Public Domain, Free for personal and commercial use, No attribution required)
www.pexels.com (CC0 License, Free for personal and commercial use, No attribution required)
Barki H, Hartwick J. Conceptualizing the interpersonal conflict. Int J Conflict Managmt. 2004;15(3):216-244.

# Leader's skills for dealing with conflicts

World Health Organization

| | |
|---|---|
| Excellent communication | Situational awareness |
| Role modelling | Fostering positive culture |
| Organizational support | Zero tolerance |
| Visibility and presence | Being responsive |

- As a leader, you should demonstrate these skills and qualities when dealing with conflict.
- They may also serve to prevent such conflict.
- Communication is an important aspect of conflict resolution.

Key resource

# Resolving conflicts constructively

**Plan and prepare the environment and the people involved**

1. Choose the right moment.
- Avoid distractions, be prepared and able to spend time discussing.

2. Focus your attention on ‘active listening’.
- Take turns to speak, summarize and paraphrase each intervention

3. Set a goal of finding a solution.
- Work together and think of ‘win-win’ outcomes.

4. Identify what is needed for all the parties involved.
- Aim to resolve each issue affecting each party, empathise.

5. Disentangle cognitive and emotional aspects of the conflict.
- Disagree about ideas or approaches, but do not personalise.

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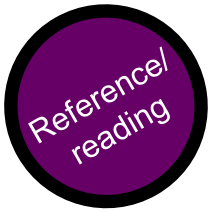

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# Recap on key points

World Health Organization

## Session 1


**Introduction to leadership in the context of:**
the core components;
multimodal strategy;
implementation resources;
project management;
IPC interlinkages;
principles of adult learning.

## Session 2


**Drill-down on IPC leadership:**
what makes a good leader?
relevance of leadership to IPC;
leadership characteristics;
types of leaders;
leadership challenges and opportunities.

## Session 3


**Exploration of implementation and behaviour change:**
implementation success factors;
behaviour change and implementation;
quality improvement cycles and implementation;
leadership challenges and solutions.

## Session 4

**Focus on communication and advocacy:**
communication skills in IPC;
choosing the right communication channels;
leadership and conflict resolution.

# Thank you

World Health Organization


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