

# MEMBER STATES INFORMATION SESSION ON INFECTION PREVENTION AND CONTROL (IPC)

7 March 2022



World Health  
Organization



# Agenda

Chair: Dr Rudi Eggers, Director, Integrated Health Services (IHS) department, UHC/LC division

<b>Time (CET)</b>	<b>Agenda item</b>	<b>Speaker</b>
15.30	<b>Welcome remarks</b>	Dr Zsuzsanna Jakab, Deputy Director-General and ExD a.i., UHC/LC division
15.35	<b>Overview of the IPC situation worldwide: highlights of achievements and gaps</b>	Dr Rudi Eggers, Director, IHS department, UHC/LC division
15:45	<b>Impact of IPC – WHO areas of work and critical guidance on IPC</b>	Dr Benedetta Allegranzi, IPC Technical Lead, IHS department, UHC/LC division Dr Silvia Bertagnolio, Unit Head, Surveillance, Prevention and Control department, AMR division Dr April Baller, IPC Focal Point, Country Readiness Strengthening department, WHE division
16.00	<b>Country capacity building supported by regional offices</b>	Dr Maha Talaat, IPC focal point, Eastern Mediterranean Regional Office, on behalf of all regional offices
16.10	<b>Priorities and strategic directions for IPC</b>	Dr Zsuzsanna Jakab, Deputy Director-General and ExD a.i., UHC/LC division
16.20.	<b>Discussion</b>	All participants
16.55	<b>Closing remarks</b>	TBD
17.00	<b>Session closure</b>	

**Member States Information Session on  
Infection Prevention and Control**

**OVERVIEW OF THE IPC  
SITUATION WORLDWIDE:  
HIGHLIGHTS OF ACHIEVEMENTS  
AND GAPS**

Dr Rudi Eggers

Director, Integrated Health Systems department

UHC/LC WHO HQ



7 March 2022



# Health care-associated infection (HAI)

also referred to as “nosocomial” or “hospital-acquired infection”

An infection acquired by a patient  
during the process of care (including preventive, diagnostic and treatment services)  
in a hospital or other health-care facility,  
which was not present or incubating at the time of admission;  
HAIs can also appear after discharge.  
HAIs may also be acquired by health workers during health care delivery,  
and by visitors.



# Global burden of HAIs (1)



**Globally, hundreds of millions of people every year are affected by health care-associated infections (HAIs), many of which are completely avoidable**

***No country or health system, even the most developed or sophisticated, can claim to be free of HAIs***

- **out of every 100 patients, 7 in high- and 15 in low-/middle-income countries (LMIC)** will acquire at least one HAI, in acute care hospitals
- **1 in every 10 affected patients dies** of HAI
- **8.9 million HAIs** occur every year in acute and long-term care facilities in EU/EEA

*Sources:*

- *Report on the burden of endemic health care-associated infection worldwide.* Geneva: World Health Organization; 2011. <https://apps.who.int/iris/handle/10665/80135>
- *Allegranzi B, et al. Burden of endemic health-care-associated infection in developing countries: systematic review and meta-analysis.* *Lancet* 2011;377(9761):228-41.
- *Suetens et al. Prevalence of healthcare-associated infections, estimated incidence and composite antimicrobial resistance index in acute care hospitals and long-term care facilities: results from two European point prevalence surveys, 2016 to 2017.* *Euro Surveill.* 2018;23(46):pii=1800516. <https://doi.org/10.2807/1560-7917.ES.2018.23.46.1800516>

# Global burden of HAIs (2)



## Intensive care:

- High-income countries (HICs): up to **30% of patients** affected by at least one HAI in intensive care units
- Lower/middle income countries (LMICs): incidence is at least **2–3 times higher**.
- **1 in 4 cases (23.6%)** of all hospital-treated sepsis cases are health care-associated
- **48.7% of sepsis** with organ dysfunction treated in adult ICUs are hospital-acquired
- **Mortality** among patients affected by health care-associated sepsis was **24.4%**, with an increase to **52.3%** among patients treated in ICU

## Neonatal care:

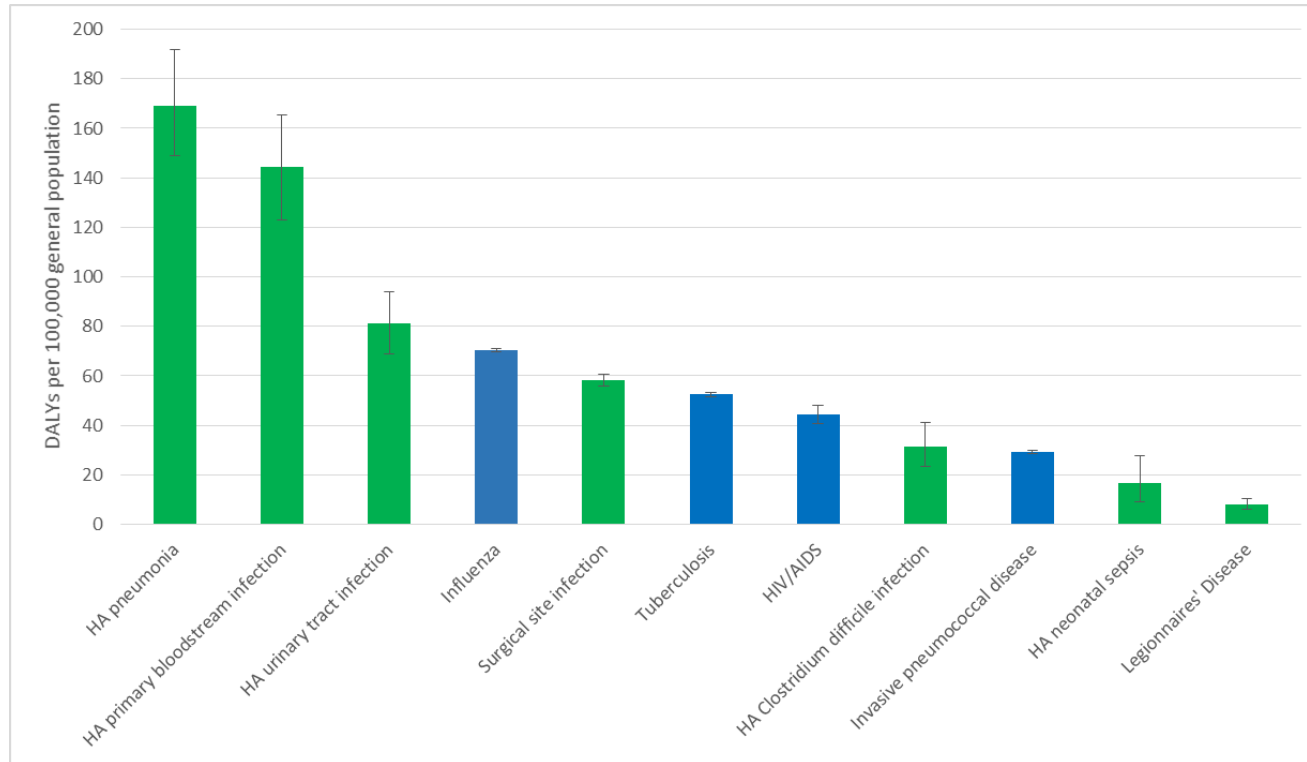
- Neonatal infection rates in LMICs are **3-20 times higher** than in HICs
- Incidence of health care-associated sepsis in neonates is **7.5 times higher than in adults**
- In hospital-born infants, HAIs account for estimated **4%- 56% of all deaths** in neonatal period

## Surgical care:

- Most frequent type of HAI in low- and middle-income countries (LMICs), 2<sup>nd</sup> & 3<sup>rd</sup> in Europe and the USA
- Most frequent complication of surgery in Africa

- WHO Report on the burden of endemic health care-associated infection worldwide, 2011. <https://apps.who.int/iris/handle/10665/80135>
- Markart R, et al. Intensive Care Med 2020, <https://doi.org/10.1007/s00134-020-06106-2>
- WHO Global Report on the Epidemiology and Burden of Sepsis, 2020. [https://www.who.int/service\\_delivery/safety\\_areas/sepsis/en/](https://www.who.int/service_delivery/safety_areas/sepsis/en/)
- WHO Global guidelines for the prevention of surgical site infection, 2018. <https://apps.who.int/iris/handle/10665/277399>

# Comparing the burden of HAIs with other infectious diseases in EU/EEA (2011-12)



DALYs: disability-adjusted life years, i.e. years of life lost to due to premature mortality and years lived with a disability due to HAIs

Source: Cassini A, et al. PLoS Med 2016;13(10):e1002150

## HAIs

account for **twice the burden** of 32 other infectious diseases

75% of DALYs attributable to AMR in Europe is a result of **HAIs**

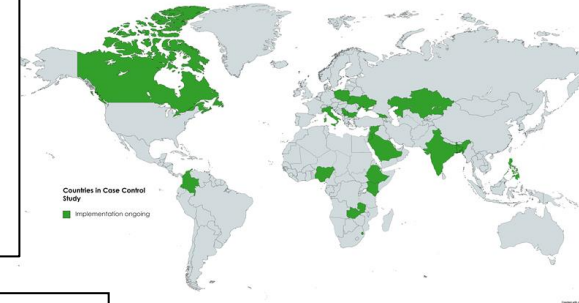
**Mortality** among patients infected with MRSA is **the double** of those infected with MSSA

**Mortality** in patients infected with pathogens **resistant to carbapenems** is about **3-times higher**

# COVID-19 Health worker cases & deaths

**RISK FACTORS** (Chou R et al, living review, <https://pubmed.ncbi.nlm.nih.gov/32369541/>)

- **High-risk exposures** (e.g. involvement in intubations, more direct or intense patient contact, or contact with bodily secretions)
- Not wearing **masks or respirators** appropriately
- **Black and Asian race and Hispanic ethnicity** relative to White race
- **Contact with an infected household member or in a private setting**



## Interim findings of WHO case control study in 97 health facilities in 19 countries

Risk factors for COVID-19 in HCWs

- Prolonged **close contact** (>15min within 1 meter)
- **Inconsistently wearing a respirator or a surgical mask or both compared to consistently wearing a respirator during aerosol-generating procedures**
- **Not always appropriately performing hand hygiene** during prolonged patient contact

**Global number of deaths among HWs with COVID-19** (Jan 2020-May 2021)  
**115,500 (80,000-180,000)**



# Global pulse survey on continuity of essential health services during the COVID-19 pandemic



Critical shortages were reported in availability of essential COVID-19 tools in hospitals across 11 countries

Major gaps in availability were most frequently reported in PPE, diagnostics and biomedical equipment

Percentage of hospitals with availability of essential COVID-19 tools (n=387 hospitals in 11 countries)

	Vaccines	PPE for all staff	Diagnostics	Therapeutics	Biomedical equipment
Cameroon (n=60)	Data not available	15	62	92	10
Congo (n=33)	91	18	100	73	15
Ghana (n=35)	35	17	40	89	17
Kenya (n=68)	93	18	53	87	47
Mali (n=14)	Data not available	29	0	86	57
Namibia (n=43)	97	56	58	74	42
Paraguay (n=20)	100	90	100	100	95
Peru (n=36)	100	58	100	100	69
Senegal (n=14)	33	36	100	86	57
Suriname (n=9)	100	11	100	56	78
Zambia (n=55)	Data not available	40	100	91	33

**Tracer items:**

COVID-19 vaccines: COVID-19 vaccine doses available (only in facilities offering COVID-19 vaccination), including: Pfizer-BioNTech, Moderna, AstraZeneca/Oxford, Janssen/Johnson&Johnson, Sinopharm, and Sinovac V.

PPE for all staff: medical/surgical mask, examination gloves, respirators, goggles, and protective apron available for all staff

Diagnostics: functioning equipment for onsite PCR/RDT

Therapeutics: Dexamethasone (injectable)/ corticosteroids

Biomedical equipment: Invasive and non-invasive ventilators, oxygen available, oxygen pulsometer

Percentage of hospitals with all tracer items available	
91% or more	
80% to 90%	
65% to 79%	
50% to 64%	
Less than 50%	

# Infection prevention and control (IPC)

is an **evidence-based** approach and **practical** solution designed to

**prevent harm to patients and health workers**

at every single health care encounter

across the whole health system

by stopping the spread of infection and antimicrobial resistance (AMR)



**PREVENT INFECTIONS SAVE LIVES IN HEALTH CARE**

**HANDLE ANTIBIOTICS WITH CARE**

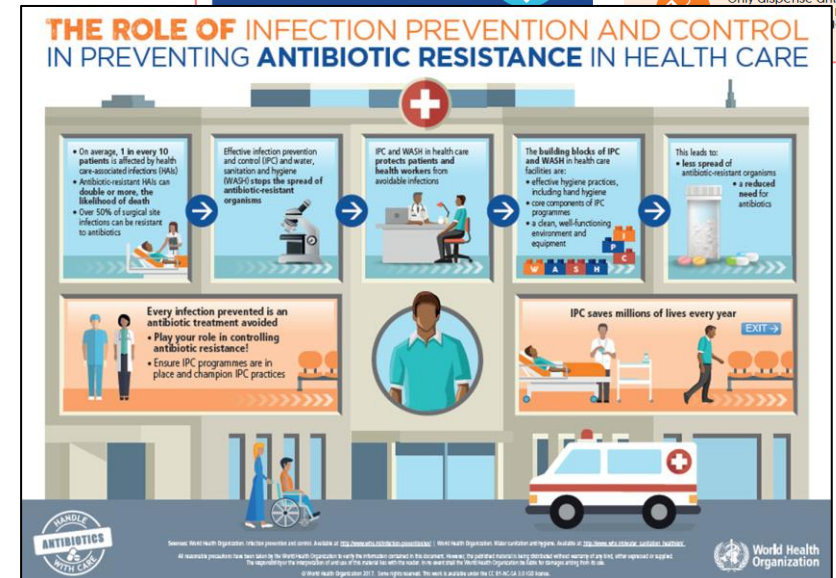
**HEALTH CARE WITHOUT AVOIDABLE INFECTIONS**

INFECTION PREVENTION AND CONTROL CONTRIBUTES TO ACHIEVING SUSTAINABLE DEVELOPMENT GOALS and could save millions of lives

**WHAT'S THE SOLUTION?**

- HAVE ACTIVE INFECTION PREVENTION AND CONTROL PROGRAMMES** and target antibiotic resistance
- USE CLEAN PRACTICES** and asepsis for interventions
- PRACTICE HAND HYGIENE** to prevent infections and reduce the spread of antibiotic resistance
- HAVE ENOUGH STAFF**, a clean and hygienic environment and don't overcrowd health care facilities
- MONITOR INFECTIONS** and make action plans to reduce their frequency
- NEVER RE-USE** needles and syringes

Only dispense antibiotics when **REDUCE THE ICE**



**THE ROLE OF INFECTION PREVENTION AND CONTROL IN PREVENTING ANTIBIOTIC RESISTANCE IN HEALTH CARE**

On average, 1 in every 10 patients is affected by health care-associated infections (HAIs). Antibiotic-resistant HAIs can double or more, the likelihood of death. Over 50% of surgical site infections can be resistant to antibiotics.

Effective infection prevention and control (IPC) and water, sanitation and hygiene (WASH) steps the spread of antibiotic-resistant organisms.

IPC and WASH in health care protects patients and health workers from avoidable infections.

The building blocks of IPC and WASH in health care facilities are:

- effective hygiene practices, including hand hygiene
- clean, well-functioning environment and equipment

This leads to:

- less spread of antibiotic-resistant organisms
- a reduced need for antibiotics

Every infection prevented is an antibiotic treatment avoided.

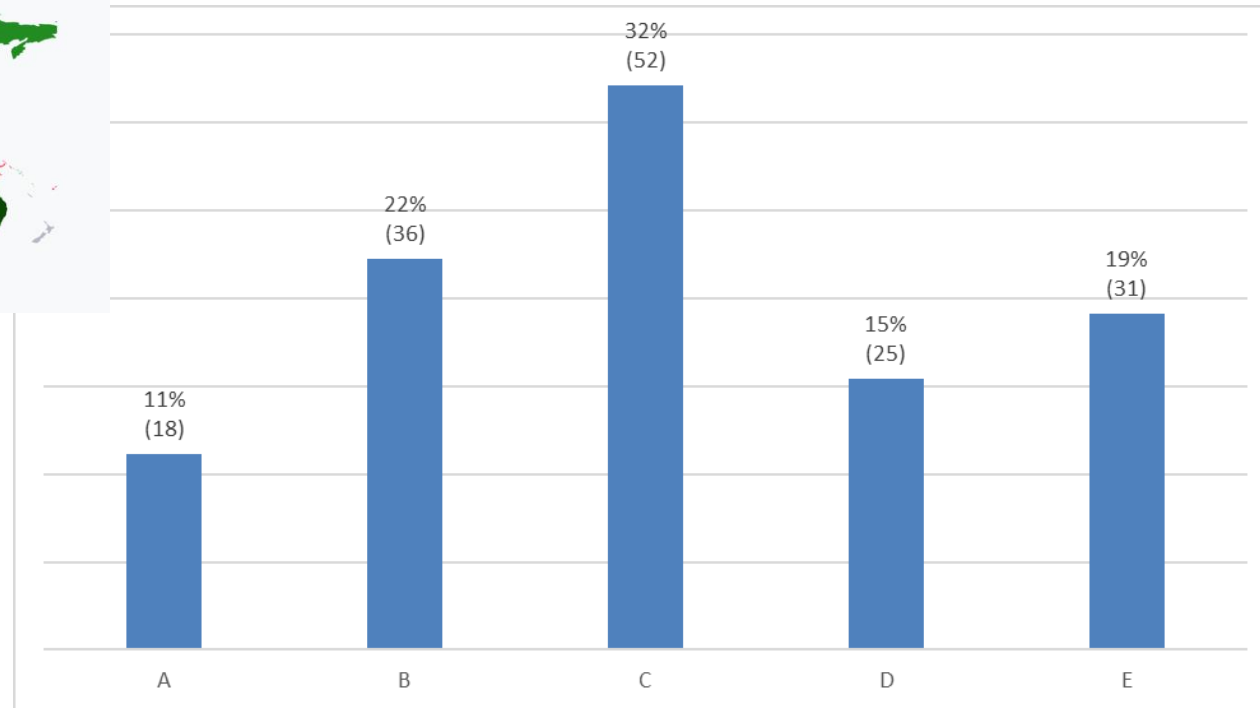
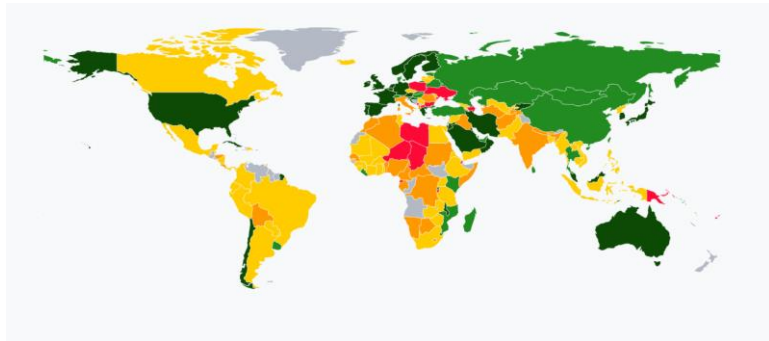
- Play your role in controlling antibiotic resistance!
- Ensure IPC programmes are in place and champion IPC practices

IPC saves millions of lives every year

**HANDLE ANTIBIOTICS WITH CARE**

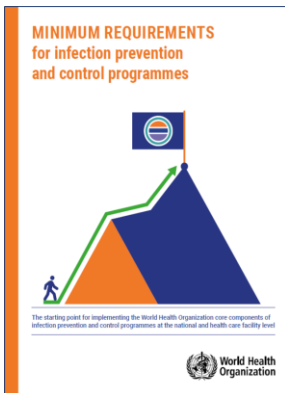
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## Global Database for the Tripartite Antimicrobial Resistance (AMR) Country Self-assessment Survey (TrACSS)



<https://amrcountryprogress.org/> **2020-21**

- **33%:** no national IPC programme (A) or not implemented (B) (LICs 8.3 times more likely)
- **35%:** IPC programmes properly implemented in healthcare facilities nationwide (D) and monitored (E)
  - **32%:** IPC programme implemented in selected health-care facilities (C)



# 2021 WHO global survey on IPC minimum requirements at the national level – preliminary results



Indicator	Total N	%	Low income	%	Lower-middle income	%	Upper-middle income	%	High income	%
Total countries participating (interim analysis)	65	-	9	-	14	-	24	-	18	-
Met <b>100%</b> of national IPC programme minimum requirements	2	<b>3%</b>	0	<b>0%</b>	0	<b>0%</b>	0	<b>0%</b>	2	<b>11%</b>
Met <b>75%</b> of national IPC programme minimum requirements	32	<b>49%</b>	6	<b>67%</b>	6	<b>43%</b>	11	<b>46%</b>	9	<b>50%</b>
Met <b>50%</b> of national IPC programme minimum requirements	52	<b>80%</b>	7	<b>78%</b>	11	<b>79%</b>	17	<b>71%</b>	17	<b>94%</b>

WHO confidential unpublished data

In 2020, **44%** of countries indicated **lack of IPC supplies and best practices** as a major reason for essential health services disruption (e.g., interruption of routine vaccination programmes) in the context of the COVID-19 pandemic

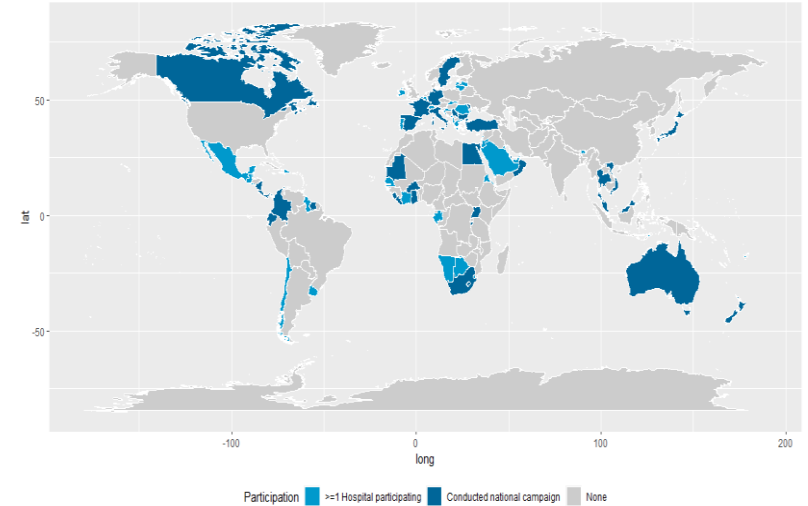
# 2019 WHO global survey on IPC in health

**care facilities:** 4440 facilities, 81 countries



## Overall implementation of IPC

- advanced: 50.7%
- Intermediate or basic: 47.3%
- Inadequate: 2%



- Only **16%** of HCFs met **ALL WHO IPC minimum requirements (MR)**,
  - **0% in LICs**
  - **27% of primary & 11% of secondary/tertiary HCFs in HICs**
- **69% met 75%** of IPC MR
- **93% met 50%** of IPC MR

Source: Tomczyk S, et al. *The Lancet Infectious Diseases* 2022

[https://doi.org/10.1016/S1473-3099\(21\)00809-4](https://doi.org/10.1016/S1473-3099(21)00809-4)



2020

**1.8 billion people** are using health care facilities that lack basic water services

**800 million people** are using facilities with no toilets



**1 in 4** health care facilities lack basic water

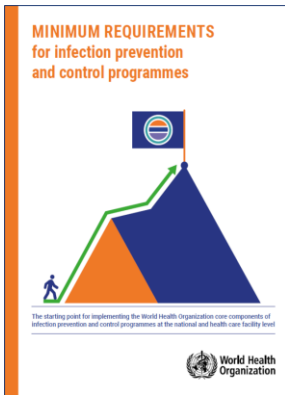


**1 in 3** health care facilities lack hand hygiene facilities at the point of care

**17%** of facilities have continuous availability of alcohol-based hand rub supplies in low-income countries (75% in HICs)

<https://www.who.int/publications/i/item/9789240017542>

<https://www.who.int/publications/i/item/9789240011618>



# 2021 global survey on IPC minimum requirements at the national level – comparison with 2018 in 35 countries



- Same proportion of countries having a national IPC programme: 62.9% in 2018 and 2021
- **Significant increases of key indicators**, i.e. proportion of countries:
  - that appointed a trained IPC focal point (25.7% vs 68.6%,  $p=0.004$ ).
  - having a dedicated budget (22.9% vs 48.6%,  $p=0.05$ )
  - having an in-service IPC curriculum (60% vs 85.7%,  $p=0.04$ ). But in 2021 only 36.9% of countries are able to provide training materials and support for these training activities.
  - promoting multimodal strategies for IPC interventions (54.3% vs 88.6%,  $p=0.006$ )

# Key messages

- Patients affected by HAI and sepsis have prolonged hospital stay, excess mortality, complications and long-term disabilities
- HAIs also add a significant burden to health systems, including increased workloads and costs
- HAI morbidity and mortality due to HAIs is 2-20 times higher in low- and middle-income countries
- Health care facilities can be amplifiers of outbreaks, involving both patients & health workers
- Antibiotic-resistant microorganisms are responsible for most of HAIs
- There is strong evidence on effectiveness and cost-effectiveness of IPC interventions
- While national IPC programmes may exist, they are often poorly funded & implemented (even in high-income countries), with much lower implementation in low- and middle-income countries
- In 2021, some significant progress has been made on a number of IPC indicators but shocking gaps still exist and sustainability should be ensured

# Member States Information Session on Infection Prevention and Control

## IMPACT OF IPC - WHO AREAS OF WORK AND CRITICAL GUIDANCE

Dr Benedetta Allegranzi, IHS department, UHC/LC, WHO HQ

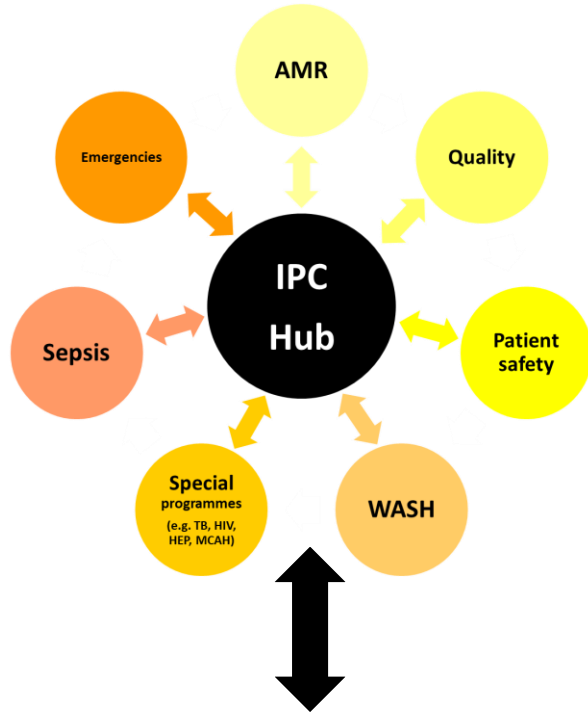
Dr Silvia Bertagnolio, SPC department, AMR, WHO HQ

Dr April Baller, CRS department, WHE, WHO HQ





# IPC work at WHO



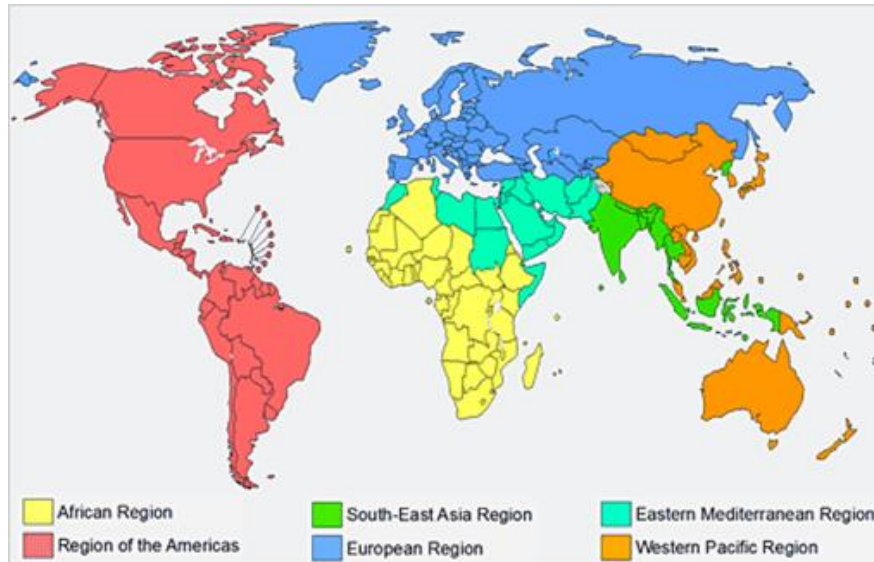
HQ IPC Task Force



Global IPC Network

IPC GUIDELINES & DEVELOPMENT RESEARCH GROUPS

HQ Sepsis Coordination Group





# IPC decreases risk of SARS-CoV-2 infection among health workers

## Decreased risk significantly associated with:

- **training** in IPC\*
- adequacy and appropriate **use of PPE\*\***
- **hand hygiene\*\***
- **universal masking** in health care facilities\*

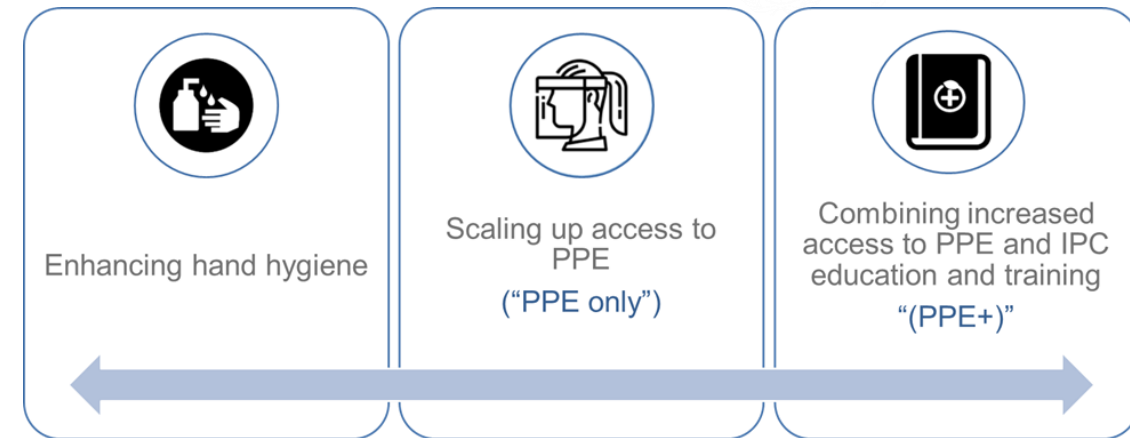
\*Chou R et al, living review, <https://pubmed.ncbi.nlm.nih.gov/32369541/>

\*\*Chou R et al & WHO multi-center case-control study

# IPC is cost-effective in response to outbreaks

## OECD/WHO Joint Project on the COVID-19 pandemic

- Cost-effectiveness model used with data regarding the first 180 days of the pandemic
- **Combining increased access to PPE with IPC training yields the greatest global health and economic gains**
  - **>50% of new infections among HCWs** in South-East Asia, Europe and the Americas, and approximately **one third of new infections** in other regions, **could have been averted**
  - **\$7.2 billion USD** net savings globally
  - **Hand hygiene also cost-effective** in most regions



# Evidence about IPC impact on infections and AMR as patient outcomes

**35-70%**  
HAI  
reduction

- Implementing IPC programmes and interventions

**50%**  
HAI  
reduction

- Improving hand hygiene compliance

**56%**  
MRSA  
reduction

- In England according to a national target over 4 years

**44%**  
SSI  
reduction

- In African countries, implementing a prevention programme combined with safety climate improvement



- Single-bed rooms
- ABHR at the point of care



- Multiple AMR patterns in health care

# IPC is cost-saving: proper IPC saves lives and allows facilities to MAKE money



- **HAI extra costs: US \$1,000-12,000**, depending on the country
- **US \$7.2-14.9 billion** spent on HAIs in the USA, in 2016

**When IPC and hand hygiene are implemented in combination with antibiotic stewardship programmes**

**2/3**  
**Reduction**  
IN FREQUENCY OF AMR  
INFECTIONS

**27,000**  
**Deaths avoided**  
IN EUROPE

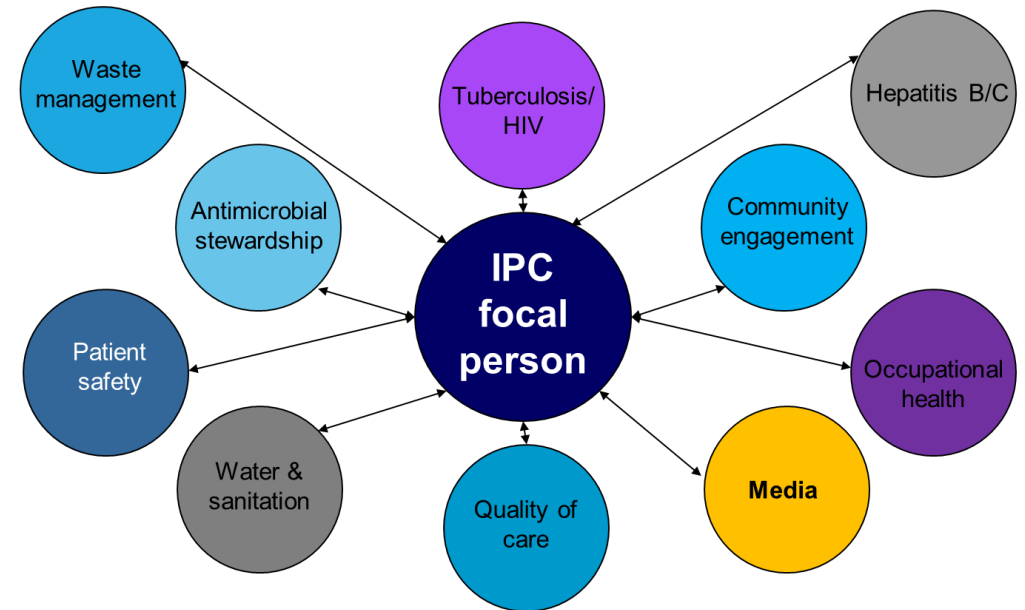
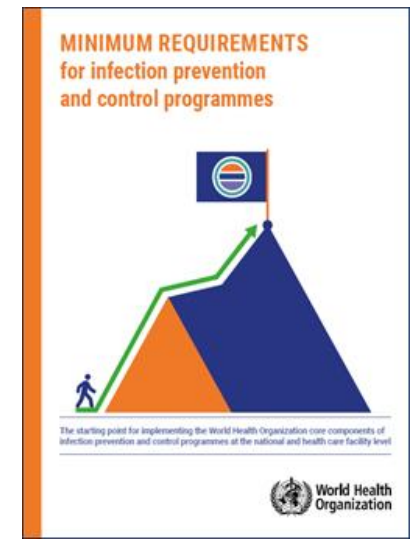
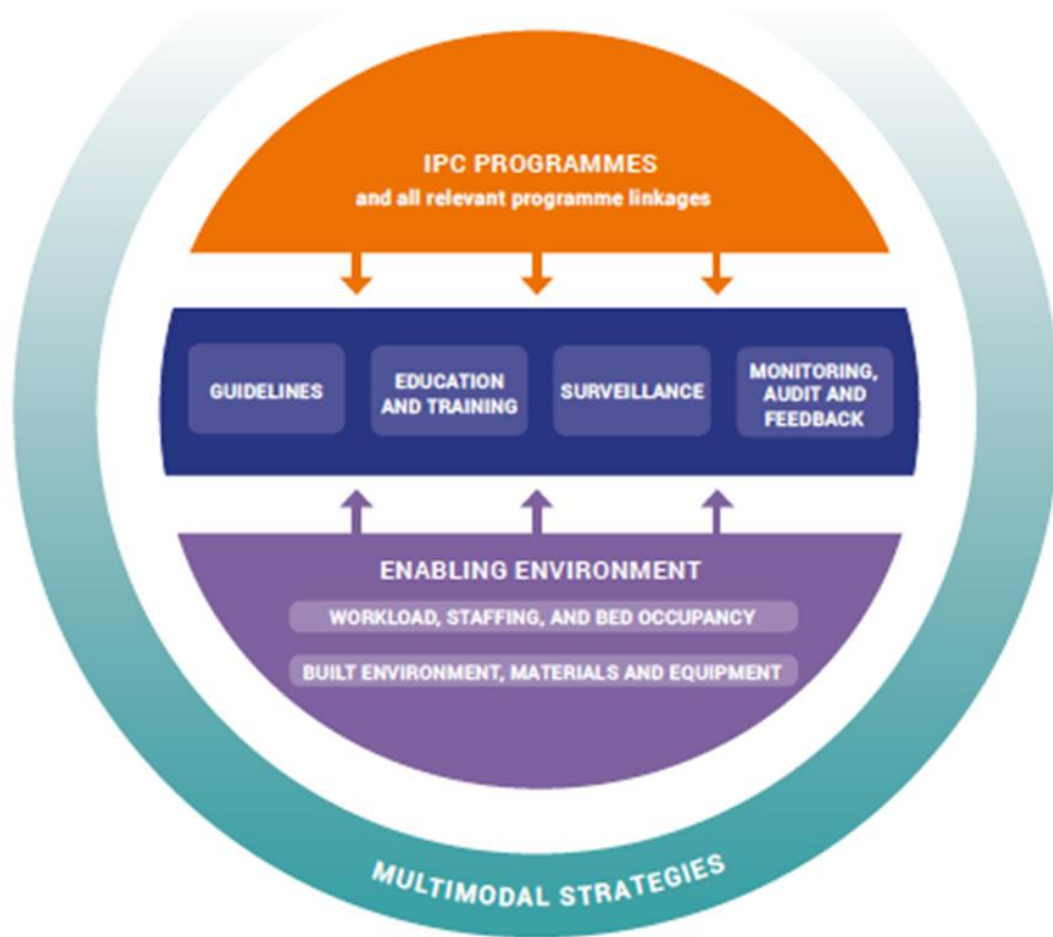
**85%**  
**Reduction**  
IN HEALTH BURDEN

**3€**  
**Per capita**  
SAVED EVERY YEAR

**Ensure the WHO core components for effective IPC are in place!!**

- OECD (2018), *Stemming the Superbug Tide: Just a Few Dollars More*. Available at [oe.cd/amr-2018](https://www.oecd.org/amr-2018)
- Forrester J, et al. *J Pat Saf* 2021; doi: 10.1097/PTS.0000000000000845

# WHO core components for effective IPC programmes



- <http://www.who.int/infection-prevention/publications/ipc-components-guidelines/en/>
- Zingg W et al. *TLID* 2015
- Storr J et al. *ARIC* 2017
- Price L et al. *TLID* 2017




# WHO IPC global guidelines




World Health Organization | Patient Safety  
A Ready Alliance for Safer Health Care

WHO Guidelines on Hand Hygiene in Health Care

First Global Patient Safety Challenge  
Clean Care is Safer Care



World Health Organization



INTERIM GUIDANCE

**Interim Infection Prevention and Control Guidance for Care of Patients with Suspected or Confirmed Filovirus Haemorrhagic Fever in Health-Care Settings, with Focus on Ebola**

December 2014

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WHO/EIS/2014.4/Rev.1

## GLOBAL GUIDELINES FOR THE PREVENTION OF SURGICAL SITE INFECTION



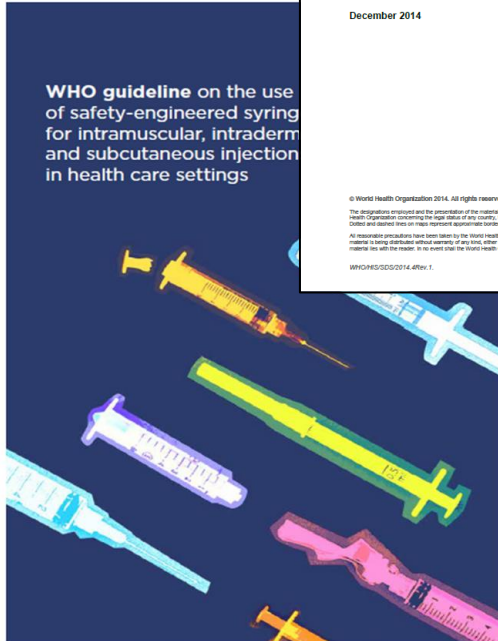
Decontamination and Reprocessing of Medical Devices for Health Care Facilities



Guidelines on Core Components of Infection Prevention and Control Programmes at the National and Acute Health Care Facility Level

World Health Organization

WHO guideline on the use of safety-engineered syring for intramuscular, intraderm and subcutaneous injection in health care settings



WHO guidelines on tuberculosis infection prevention and control  
2019 update

THE END TB STRATEGY

World Health Organization

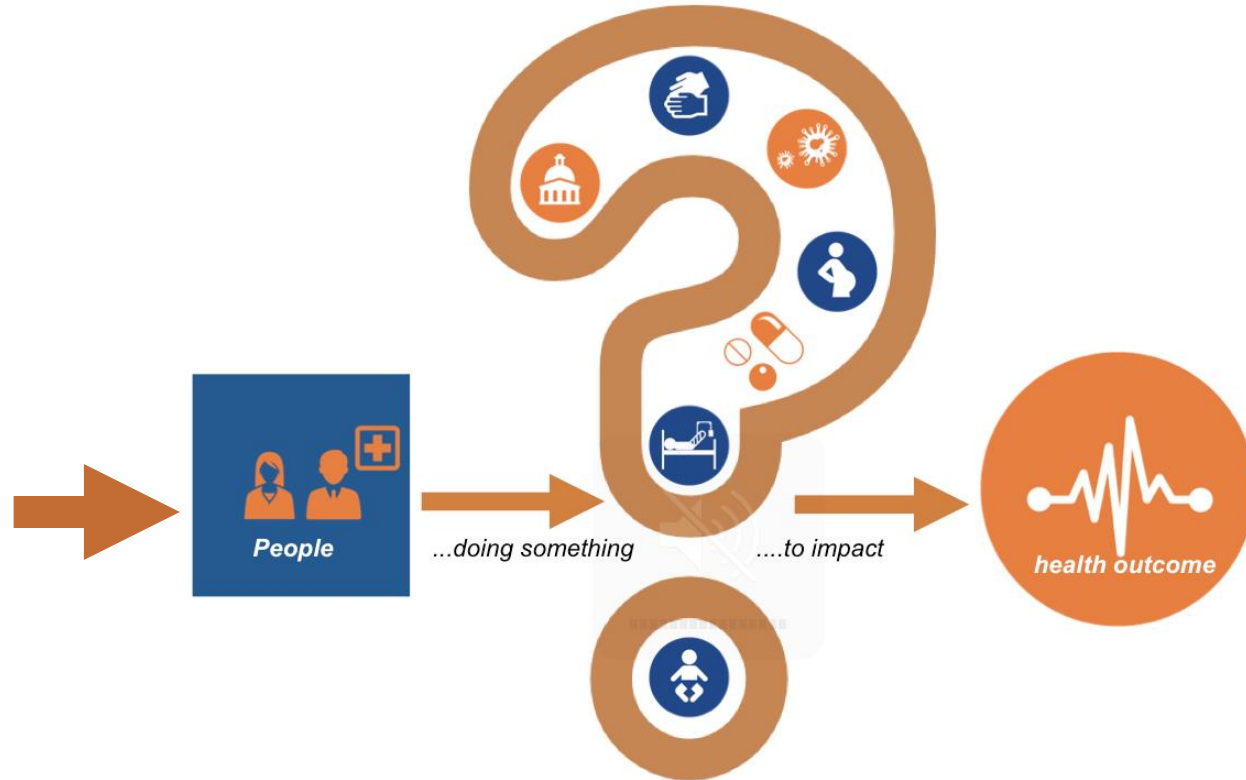


World Health Organization

Global guidelines for the prevention and control of carbapenem-resistant Enterobacteriaceae, *Acinetobacter baumannii* and *Pseudomonas aeruginosa* in health care facilities



# Translating guidelines to action






# Implementation manuals and resources


**SAVE LIVES**  
Clean Your Hands

**Guide to Implementation**

A Guide to the Implementation of the WHO Multimodal Hand Hygiene Improvement Strategy



**Interim Practical Manual supporting national implementation of the WHO Guidelines on Core Components of Infection Prevention and Control Programmes**



**PREVENTING SURGICAL SITE INFECTIONS: IMPLEMENTATION APPROACH FOR EVIDENCE-BASED RECOMMENDATIONS**




World Health Organization

**IPC**

**Response Preparedness Readiness**

**Infection prevention and control**

**Guidance to action tools**



RESPIRATORY AND HAND HYGIENE | PERSONAL PROTECTIVE EQUIPMENT | ENVIRONMENTAL CLEANING, WASTE AND LINEN MANAGEMENT

**FRAMEWORK AND TOOLKIT FOR INFECTION PREVENTION AND CONTROL IN OUTBREAK PREPAREDNESS, READINESS AND RESPONSE AT THE NATIONAL LEVEL**

World Health Organization

**PREVENT INFECTIONS SAVE LIVES IN HEALTH CARE**

HEALTH CARE WITHOUT AVOIDABLE INFECTIONS

WHAT'S THE PROBLEM? | WHAT'S THE SOLUTION?



**SURGICAL SITE INFECTIONS: Key facts on decolonization carriers of Staphylococcus aureus**

**THINGS YOU SHOULD KNOW**  
What does the World Health Organization (WHO) recommend?

The 2016 WHO Global guidelines for the prevention of surgical site infections recommend the following:

- cardiothoracic and orthopaedic surgery should be performed using intranasal applications of mupirocin 2% ointment with or without a combination of chlorhexidine gluconate (CHG) body wash (strong recommendation).
- other types of surgery should use intranasal applications of mupirocin 2% ointment with or without a combination of chlorhexidine gluconate (CHG) body wash (strong recommendation).

This recommendation applies to facilities where screening for S. aureus is feasible and easy. In facilities where screening is not feasible, the recommendation is not applicable to patients.

**WHAT should be done?**

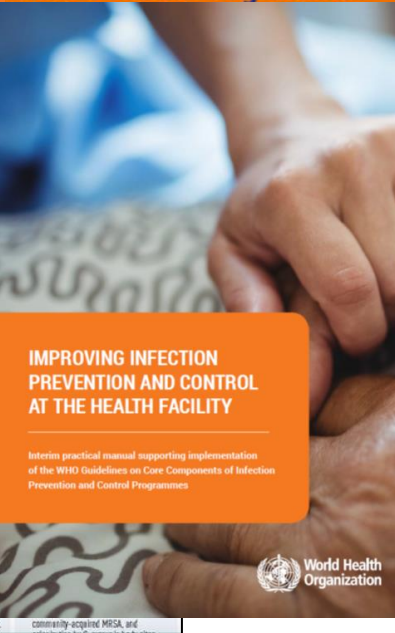
Preoperative bathing/showering

- Involve patients and ask for their collaboration and compliance with this recommendation.
- Delegated staff should provide clear instructions on how to correctly administer intranasal application of mupirocin 2% ointment. For more detailed information, refer to the WHO Guidelines on Core Components of Infection Prevention and Control Programmes.
- Support access to necessary products:
  - provide to patients any hair removal or depilatory in some countries
  - nasal mupirocin 2% ointment
  - CHG 2-4% soap body wash.
- For other types of surgery, evidence on the effectiveness of mupirocin 2% ointment and how to apply this recommendation is limited. Particular attention should be given to the feasibility of carrying out this recommendation in a broader surgical population, priority of this intervention over other preventive measures should be considered, as well as cost effectiveness.

World Health Organization

**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 Programmes



**IMPLEMENTATION MANUAL to support prevention of surgical site infections at the facility level TURNING RECOMMENDATIONS INTO PRACTICE (INTERIM VERSION)**



World Health Organization

**Implementation manual to prevent and control the spread of carbapenem-resistant organisms at the national and health care facility level**

Interim practical manual supporting implementation of the WHO Guidelines for the prevention and control of carbapenem-resistant Enterobacteriaceae, Acinetobacter baumannii and Pseudomonas aeruginosa in health care facilities



World Health Organization

**DO THE RIGHT THING AT THE RIGHT TIME TO STOP SURGICAL SITE INFECTION**  
Recommendations for safe surgical care

PREOPERATIVE | INTRAOPERATIVE | POSTOPERATIVE



**Practicing the 5 Moments for hand hygiene**

**↓ 50% INFECTION**

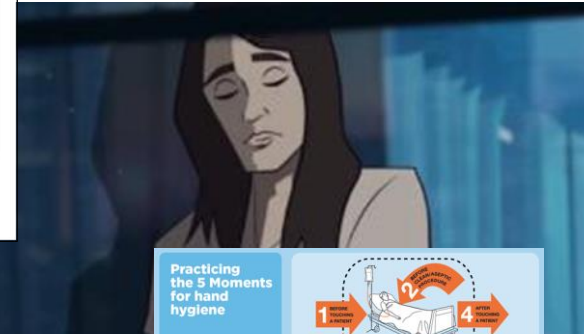
A clean, well-functioning environment and equipment

Safe water and sanitation

Infection prevention and control programmes and teams

**↓ 30% INFECTION**

Infection prevention measures



# IPC national & facility level assessment tools



World Health Organization

### Core components for infection prevention and control programmes

#### National level assessment tool\*

For instructions on how to use this assessment tool, refer to the Updated instructions for the national infection prevention and control assessment tool 2 (IPCAT2)

Country: \_\_\_\_\_  
National health authority: \_\_\_\_\_

Details of person responding to the questionnaire:

Name: _____	Details of person completing the questionnaire (leave blank if self-assessment):
Title/position: _____	Name: _____
Workshop: _____	Title/position: _____
E-mail: _____	Institution: _____
	E-mail: _____

Date(s) of assessment: [DOB/YY] \_\_\_\_\_  
Date(s) of previous assessment: [DOB/YY] \_\_\_\_\_

Assessment mode: (Choose from dropdown list) \_\_\_\_\_

Self-assessment? (Yes/No) \_\_\_\_\_

## World Health Organization

Assessment tool of the  
**Minimum requirements for infection prevention and control programmes**  
at the National level

**Infection prevention and control health-care facility response for COVID-19**

A module from the suite of health service capacity assessments in the context of the COVID-19 pandemic

INTERIM GUIDANCE  
20 October 2020

## World Health Organization

Assessment tool of the  
**Minimum requirements for infection prevention and control programmes**  
at the facility level

INTERNATIONAL HEALTH REGULATIONS (2005)

### JOINT EXTERNAL EVALUATION TOOL

THIRD EDITION (2021)

INFECTION PREVENTION AND CONTROL ASSESSMENT FRAMEWORK AT THE FACILITY LEVEL



# New WHO IPC monitoring portal



Log in Sign up FAQs Get help About

## Welcome to the WHO Global IPC Portal

The WHO Global IPC Portal is a resource and tool to help healthcare and other professionals working in the field of IPC, from facility through to national and international level. It is:

- Anonymous – we do not verify your identity unless you want to share your data
- Safe – you can learn from the resources and interact freely with the tools without fear of tracking
- Private – your data can be discarded or, if you store it, kept confidential
- Useful – there are tools, resources and data to help you improve your IPC program performance
- Easy to use – the tool is accessible via mobile or desktop app with a simple and clear layout and intuitive navigation logic
- Evolving – new tools and featured will be added as they become available
- User-moulded – well-used features will be enhanced, unused features will be dropped

## WHO 2021 IPC Global Survey IPC **Minimum Requirements** at the **National Level**

28 July – 28 January 2022

Prepare:  
read the  
tools and  
documents

Take part in WHO  
webinars, hear  
more about using  
the tools and how  
to take part in the  
global survey

July 2021 - Jan 2022  
Complete IPCAT-MR  
tool and submit your  
results to WHO  
online

Jan onwards -  
act on your  
results and  
make your plans

<https://ipcportal.who.int/>

**Please contact your national IPC focal point  
and encourage your country's participation!**



# IPC and WASH



## HAND HYGIENE FOR ALL INITIATIVE

World Health Organization

**Improving access and behaviour in health care facilities**

**Purpose of the brief**

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

**Introduction and background**

Access to quality health care for all is a human right. As clearly recognized by the United Nations (UN) Sustainable Development Goals 3, 6 and 8, it is impossible to succeed in providing quality health care. Shockingly, many HCFs still lack WASH and, by default, cannot implement good IPC practices.

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

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

\*WHO/UNICEF, April 2021. <https://www.who.int/news-room/fact-sheets/detail/hand-hygiene-for-all>.  
\*Reference: World Bank, 2019. <https://www.worldbank.org/en/indicators/SH.UVS.SRVSVS>.  
\*Reference: WHO, 2019. <https://www.who.int/news-room/fact-sheets/detail/maternal-and-neonatal-mortality>.

**GLOBAL PROGRESS REPORT ON WASH IN HEALTH CARE FACILITIES**

**Fundamentals first**

World Health Organization | unicef

**State of the World's HAND HYGIENE**

A global call to action to make hand hygiene a priority in policy and practice

World Health Organization | unicef

**Hand Hygiene for All**

A whole of society approach to achieving universal hand hygiene and stopping the spread of COVID-19

[https://www.who.int/water\\_sanitation\\_health/sanitation-waste/sanitation/hand-hygiene-for-all/en/](https://www.who.int/water_sanitation_health/sanitation-waste/sanitation/hand-hygiene-for-all/en/)

**Costing tool for estimating the cost of interventions to improve hand hygiene in domestic settings**

Cover note  
3 September 2021

**RESOURCE CONSIDERATIONS FOR INVESTING IN HAND HYGIENE IMPROVEMENT IN HEALTH CARE FACILITIES**

World Health Organization

# IPC & quality of care, patient safety and primary care

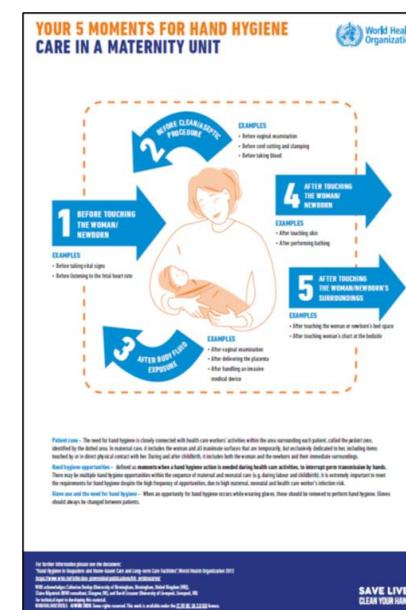
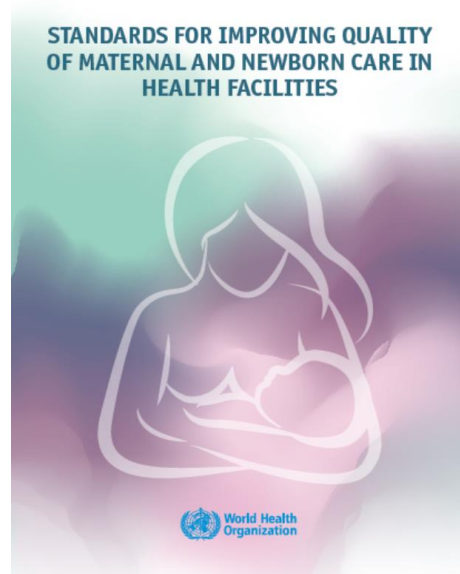
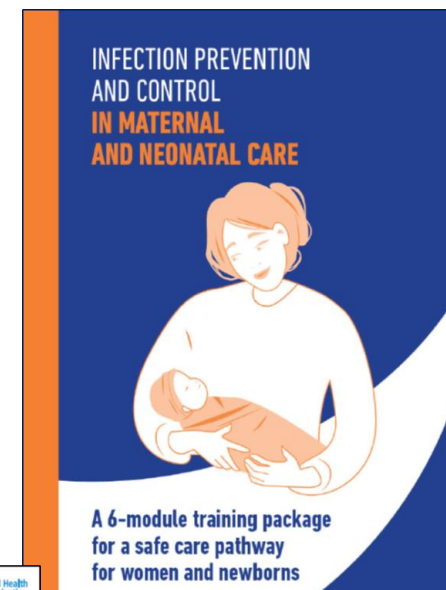


<https://www.who.int/teams/integrated-health-services/quality-health-services>  
<https://www.who.int/teams/integrated-health-services/patient-safety>  
<https://www.who.int/teams/integrated-health-services/infection-prevention-control>

# IPC & maternal, newborn, child adolescent health and ageing care



- **IPC training package for maternal & neonatal care**
- **Interprofessional Midwifery Education Toolkit**
- **WHO IPC recommendations for small and sick newborns**
- **IPC guidance for long term care facilities in the context of COVID-19**



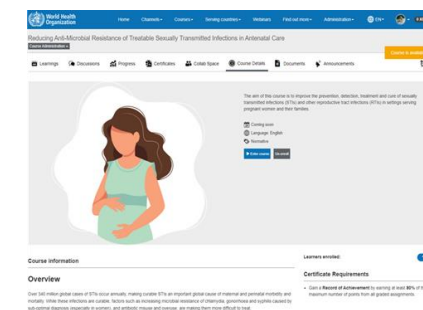
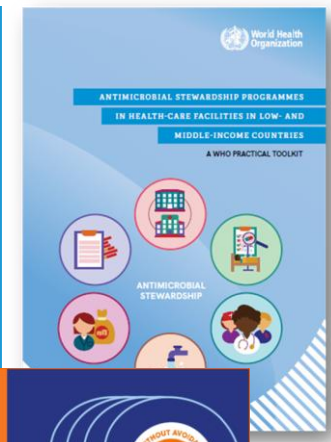
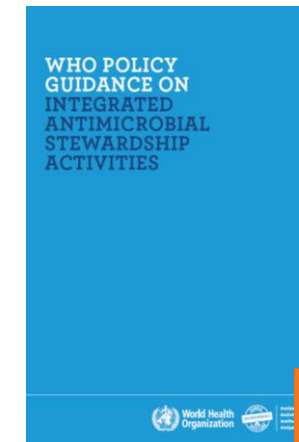
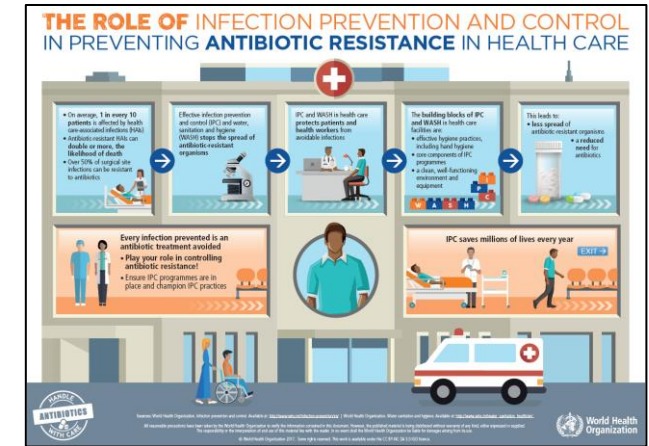
- <https://www.who.int/teams/maternal-newborn-child-adolescent-health-and-ageing/covid-19>
- [https://www.who.int/teams/sexual-and-reproductive-health-and-research-\(srh\)/overview](https://www.who.int/teams/sexual-and-reproductive-health-and-research-(srh)/overview)



# IPC and antimicrobial resistance (AMR)

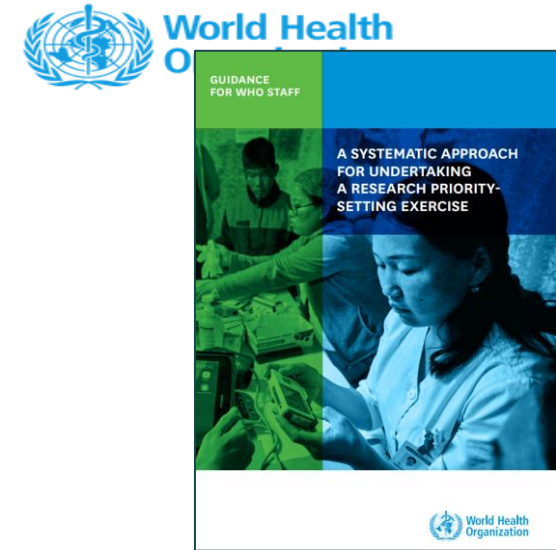
- **Implementation of Objective 3** of the Global Action Plan on AMR
- **Indicator 3.d.2 for AMR:** reducing the percentage of **bloodstream infections due to selected antimicrobial-resistant organisms**
- **Tripartite AMR Country Self-Assessment Survey (TrACSS)**
- **Global Antimicrobial Resistance and Use Surveillance System**
- **IPC competencies and curriculum**
- IPC integration with **antimicrobial stewardship**
- **Training package:** leadership skills to implement multisectoral AMR NAPs
- **OpenWHO course:** Reducing antimicrobial resistance of treatable sexually transmitted infections in antenatal care

<https://www.who.int/teams/integrated-health-services/infection-prevention-control/ipc-and-antimicrobial-resistance>  
<https://www.who.int/teams/surveillance-prevention-control-AMR>



# Global AMR research agenda

## Priority questions (including IPC) to curb AMR



### ➤ 4 cross-cutting domains

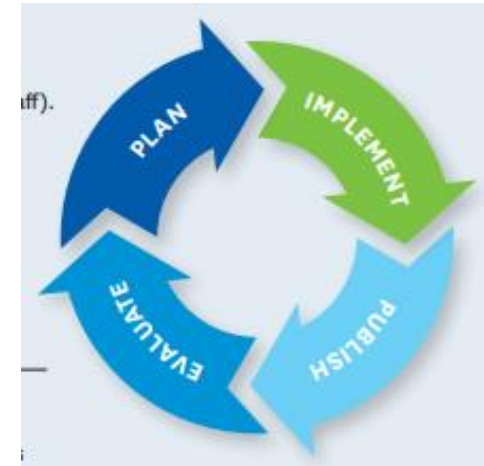
- **Descriptive** of AMR burden and drivers
- **Delivery** of existing interventions with better quality
- **Development** of improved interventions (reduce costs, optimize impact and feasibility)
- **Discovery** and demonstration of new tools and interventions

### ➤ A ranking methodology developed by WHO (CHNRI)

### ➤ In collaboration with WHO technical teams

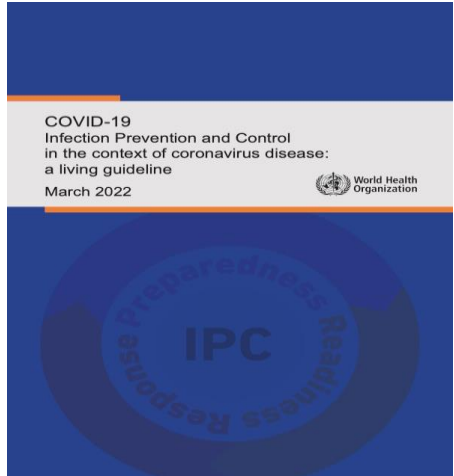
### ➤ Based on scoring from large global panel of experts

### ➤ Ensuring research triggers effective and actionable interventions





# IPC during COVID-19 pandemic: Thematic areas of work



### Technical Guidance

- 15 guidance & policies developed and/or updated
- Country Implementation evaluation
- Dissemination strategies and Regional support
- Global learning platform

### Training and Communication

- New courses OpenWho
- Training evaluations
- Global IPC webinar series
- Risk communication



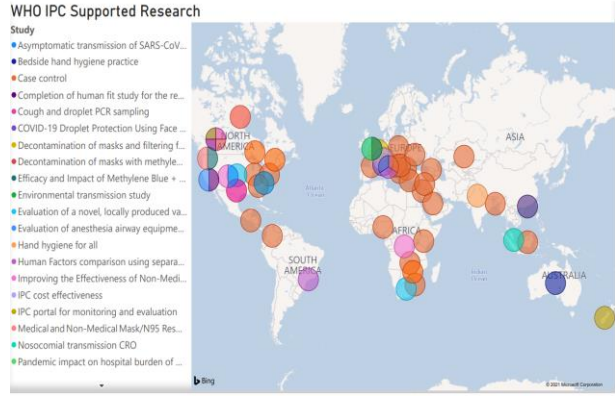
### Research and development

- 45 research projects
- Health worker infections
- PPE innovations
- AMR & COVID-19
- Modes of transmission

### Cross cutting work

- PPE ecosystem
- Ventilation
- WASH
- Essential health services
- Vaccination
- SHW

Coordination
WASH Working Group
Normative role
WHO/UNICEF joint guidance
Country support
Guinea (EVD, MVD), Ivory Coast (suspected EVD), Madagascar (Plague) and Tigray (Humanitarian response)



# WHO IPC Basic, Advanced and COVID-19 Training



## Infection Prevention & Control

Health care without avoidable infections



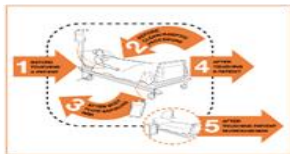
Infection Prevention and Control (IPC) for Novel Coronavirus (COVID-19)



How to put on and remove personal protective equipment (PPE)



Long-term care facilities in the context of COVID-19



Standard precaution s: Hand hygiene



Standard precautions: Environmental cleaning and disinfection



Basic microbiology



Standard precautions: Waste management



Decontamination and sterilization of medical devices



IPC core components and multimodal strategies

**WHO IPC Advanced Training Package**

- 10 E-learning modules
- Slides deck
- Trainer's manual
- Student's handbook
- Videos

## 5 COVID-19 courses

- 1,317,000 enrollments
- 74% completion rate

## 11 basic IPC courses

- 629,000 enrollments
- 64% completion rate

<https://openwho.org/>



# COVID-19 Operational readiness and Country support in Fragile, Conflict, Vulnerable (FCV) States



## Infection Prevention and Control (IPC) in health-care facilities in the event of a surge or resurgence in cases of COVID-19

**Target audience** - Emergency operations centre focal persons for health facilities, incident managers, health care managers and administrators, and infection prevention and control focal persons

### GOALS

- 1 To reduce transmission of health-care associated infections and thereby to enhance the safety of all who are present in a health-care facility, including patients, staff and visitors.
- 2 To enhance the ability of a health-care facility to respond to an outbreak.
- 3 To lower or eliminate the risk of the health-care facility itself amplifying the outbreak.

### IMMEDIATE ACTIONS – WITHIN 2 WEEKS OF IDENTIFICATION OF SURGE/RESURGENCE AND ONGOING

#### STEP 1

##### COORDINATE INCIDENT COMMAND GROUP TO DIRECT ACTIONS AND CASCADE COMMUNICATIONS

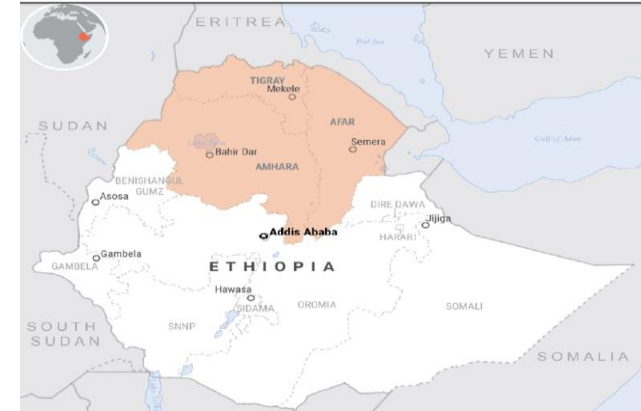
The Incident Command Group identifies and coordinates key actions and risk communications to staff, external services, and referral networks to mitigate risks associated with increased need for care capacity within the health-care facility.

- Include representation in Incident Command Group from hospital administration, triage/screening, clinical teams, occupational health and safety, environmental services, building/facilities, logistics and supply coordination, and all other relevant stakeholders.
- Assess current capacities to perform care safely, manage expected surge influx, and existing or expected barriers to safe case management.
- Plan for recruitment of additional staff across all areas to safely manage increased caseload, coverage for paid sick leave and breaks, and additional human resources for contingency capacities during emergency situations.

Checklist for health facility level IPC in the event of a surge of COVID-19



Yemen COVID-19 response



Northern Ethiopia(Tigray):  
PPE supplies  
WASH and IPC specialists

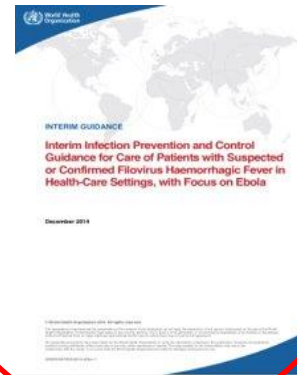
Scaling Up IPC Capacity In Cox's Bazar In Response To Covid-19 Pandemic Furthers Streamlining Of Best Practices In General Health Facilities

Year	Monthly IPC Scorecard (12 months)- SARI ITC "X", Cox's Bazar Refugee Camp											
	2020				2021							
Months	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
Screening, waiting and triage area	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
PPE donning area	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Patient wards	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Laboratory	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
PPE doffing area	Red	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Staff resting area	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Kitchen/dining	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Toilets and shower room	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Decontamination area	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Storage area	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Pharmacy/pharmacy store	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Waste management area	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Staff health & safety	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Personal protective equipment (PPE) and supplies	Red	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green

# Other outbreak responses: Ebola and Marburg Virus Disease and IPC Technical Guidance development



2014



2016

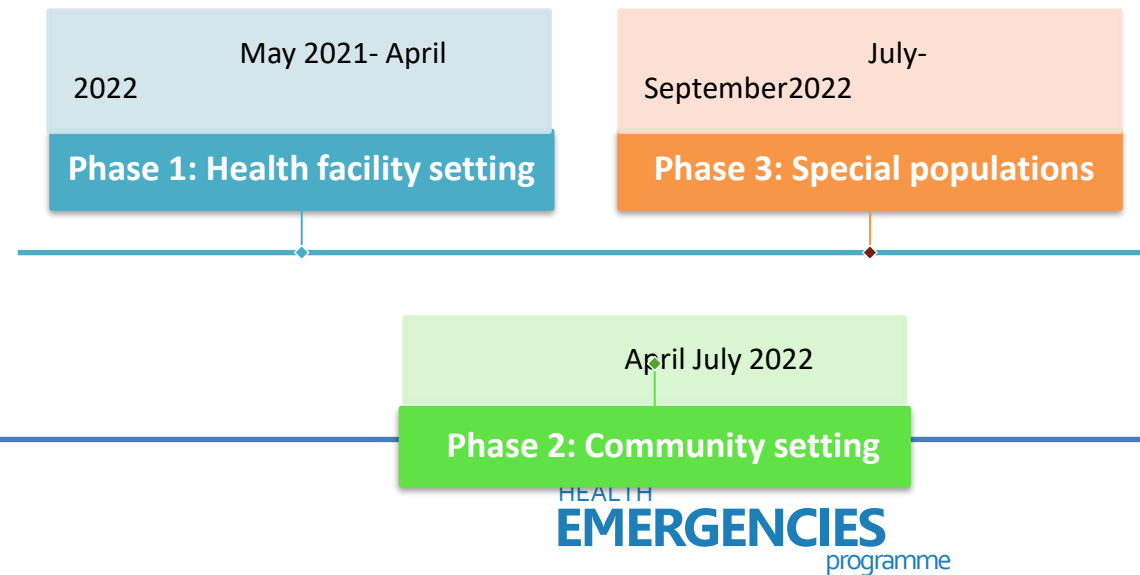


2018

Preferred Product Characteristics for Personal Protective Equipment for the Health Worker on the Frontline Responding to Viral Hemorrhagic Fevers in Tropical Climates



- Technical support to the field teams in Guinea, DRC, Ivory Coast
- IPC EVD training package updates and adaptation of packages for Marburg Virus Disease
- IPC/WASH preparedness and readiness webinars in French and English for surrounding countries:  
Côte d'Ivoire, Guinée Bissau, Liberia, Mali, Sierra Leone and Senegal >200 participants over 2 days

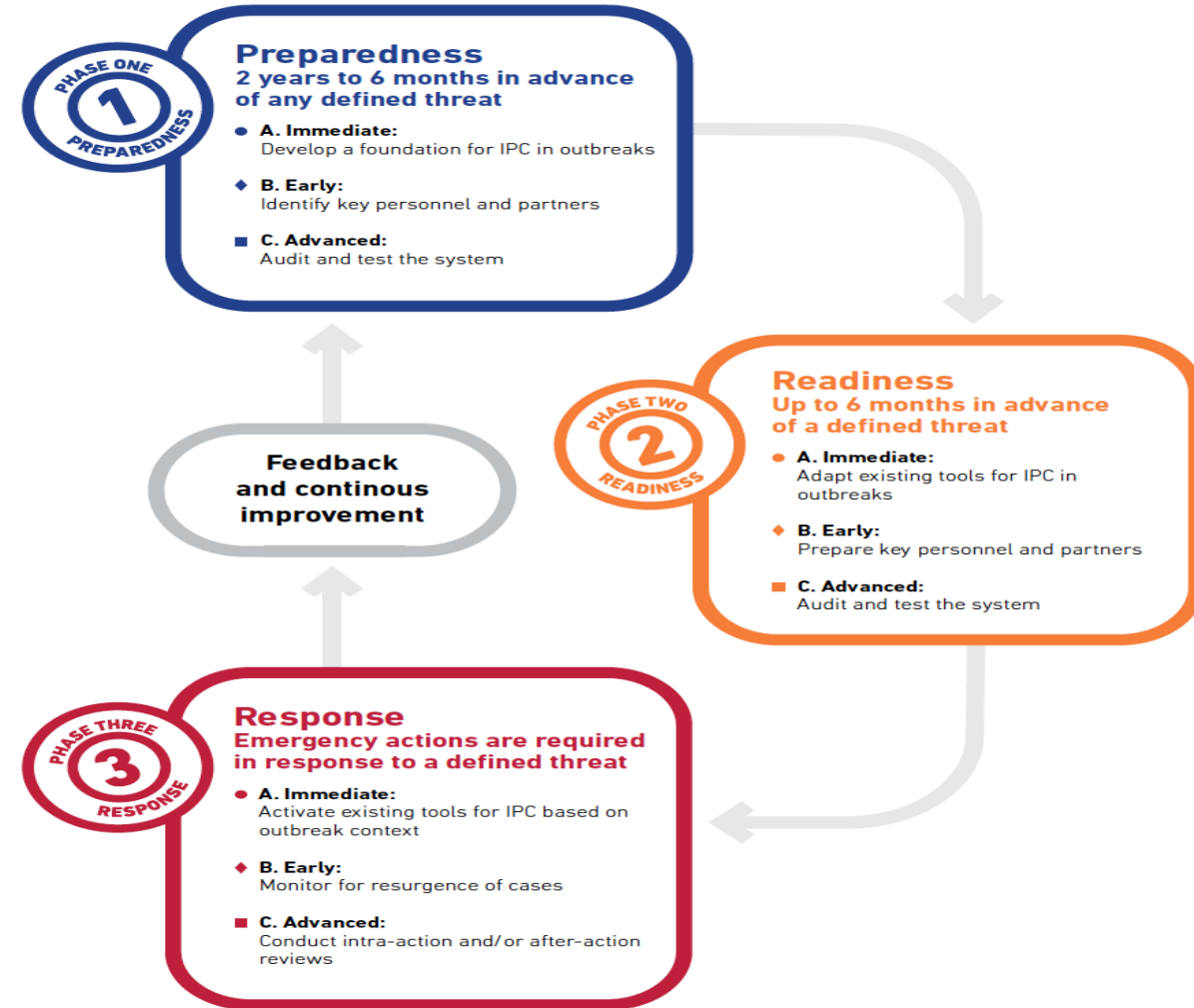


# Framework and Toolkit for IPC Outbreak Preparedness, Readiness and Response



To provide national and subnational authorities with:

1. A practical **framework** of actions for strengthening IPC outbreak preparation, readiness and response.
2. A **toolkit** that provides resources to assist in the development of local contingency or action plans to strengthen IPC outbreak preparedness, readiness and response.





# THANK YOU and to WHO IPC colleagues!



Alessandro Cassini  
Nita Bellare  
Claire Kilpatrick  
Aimee Ramos  
Paul Rogers  
Julie Storr  
Ermira Tartari  
Joao Toledo  
Anthony Twyman  
Sara Tomczyk

April Baller  
Mandy Deeves  
Hannah Hamilton  
Lauretha Madumere  
Patrick Mirindi  
Madison Moon  
Pierre Yves Oger  
Maria Clara Padoveze  
Leandro Pecchia  
Paul Schumacher  
Vicky Willet



<https://www.who.int/teams/integrated-health-services/infection-prevention-control>

**IPC regional focal points:** G. Avortri, AP Coutinho Rehse, L. Cihambanya, P. Kariyo, M. Letaief, B. Ndoeye, N. Prasopa-Plaizier, A. Shah Singh, H. Sobel, M. Talaat Ismail, B. Zayed

**Member States Information Session on  
Infection Prevention and Control**

# **COUNTRY CAPACITY BUILDING SUPPORTED BY REGIONAL OFFICES**

Dr Maha Talaat, IPC focal point, Eastern  
Mediterranean Regional Office



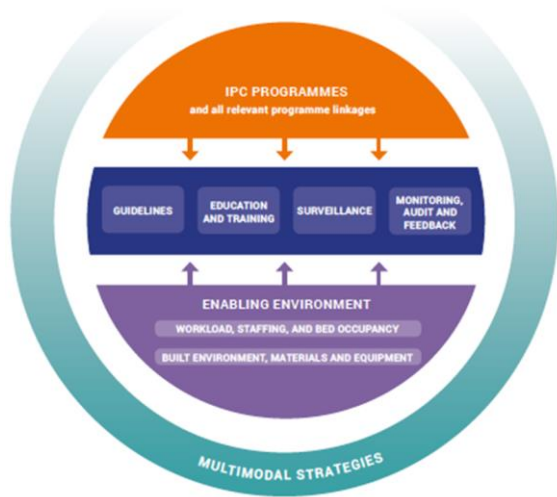
7 March 2022



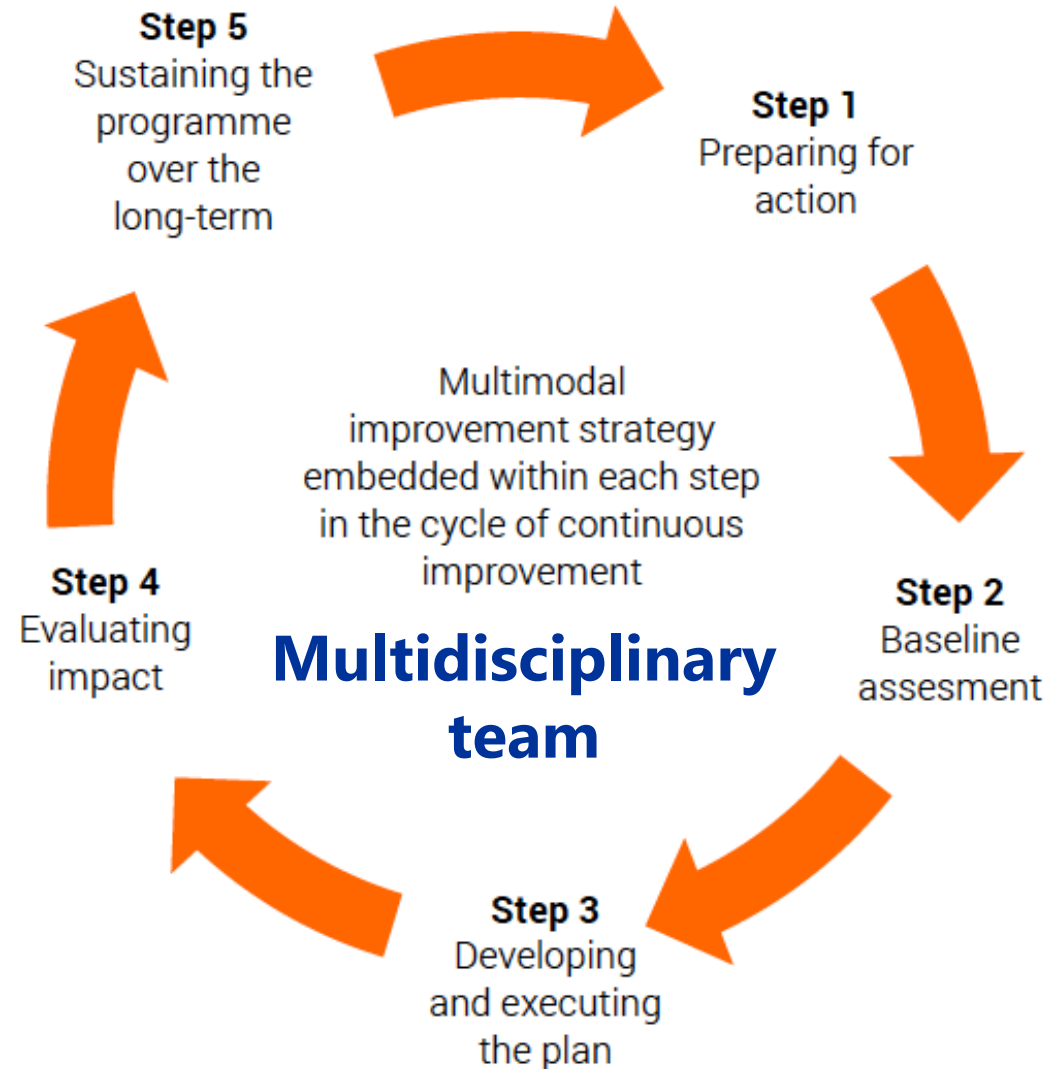
# A stepwise approach for implementation



# Supporting countries with a tailored, stepwise implementation approach



## Implementation cycle



# Assessments in a spirit of improvement



- Regular assessments of IPC programmes are essential for **continuous quality improvement**.
- Assessment helps to identify **existing strengths** and take stock of achievements made so far to convince decision-makers that success and **progress is possible**.
- Assessment also helps to identify **gaps** and create a **sense of urgency** for the changes needed to improve IPC
- Data are of value, **ONLY** if they are used **for action**, i.e. to elaborate and implement **targeted and feasible improvement plans** and to **track progress**



**Member States Information Session on  
Infection Prevention and Control**

# **PRIORITIES AND STRATEGIC DIRECTIONS FOR IPC**

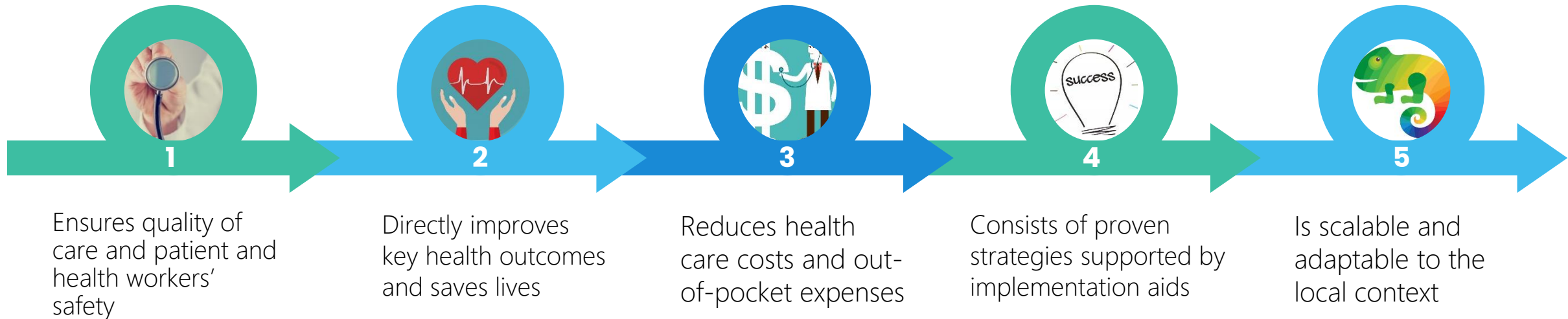
**Dr Zsuzsanna Jakab, Deputy Director-  
General and ExD a.i., UHC/LC division**

7 March 2022



# IPC is a tried-and-true approach that is effective and cost-saving

## 5 reasons to invest in IPC



# Critical priorities for IPC in national and international health agendas (1)



## 1. Functional IPC programmes

- Dedicated budget
- Trained IPC professionals

## 2. IPC minimum requirements

- At national and facility levels in all countries
- Demonstrated by M&E of key IPC and WASH indicators

## 3. Decisive and visible political commitment and leadership engagement

- At the highest levels
- Allocation of national and local health budgets
- Establishing targets for IPC investment

## 4. Regulations and legal framework

- To enforce IPC requirements and policies through accreditation and accountability systems
- Reporting of key IPC performance indicators and targets

# Critical priorities for IPC in national and international health agendas (2)



## 5. Integration and alignment with other programmes

- Specific IPC programme that horizontally integrates/aligns with existing ones

## 6. Embedding IPC within the patient pathway and clinical care

- Tools and SOPs to support IPC understood and practiced at the point of care in all clinical areas
- Workflow, human factors, ergonomics to be considered

## 7. IPC training and education at all levels

- Implementation of accredited IPC curricula (pre- & postgraduate, in-service)
- Based on the WHO IPC core competencies

## 8. Human resources and career pathway for IPC

- IPC professionals:
- with a recognized career pathway
  - empowered with a clear mandate and authority
  - accountable for implementation and reporting impact



# Critical priorities for IPC in national and international health agendas (3)



## 9. Surveillance of HAIs and AMR in health care

- Connected with existing platforms (e.g. GLASS)
- Existing standardized surveillance protocols (e.g. ECDC PPS)
- Data must be used locally for action

## 10. Monitoring IPC programmes

- Using standard M&E approaches
- Regular assessments and feedback to health workers
- Data must be used locally for action
- WHO Global IPC Portal is a protected and confidential solution

## 11. IPC and communications

- Tailored & consistent communications
- Authoritative source, based on science
- Multiple target audiences

# IPC part of other health priorities & resolutions



1995: WHA resolution 48.7 on IPC as part of IHR

2015: WHA resolution 72.6 on IPC as crucial part of quality of care

2019: WHA resolution 72.6 on IPC as part of patient safety

2015: WHA resolution 58.27 on IPC as 3rd objective of GAP AMR

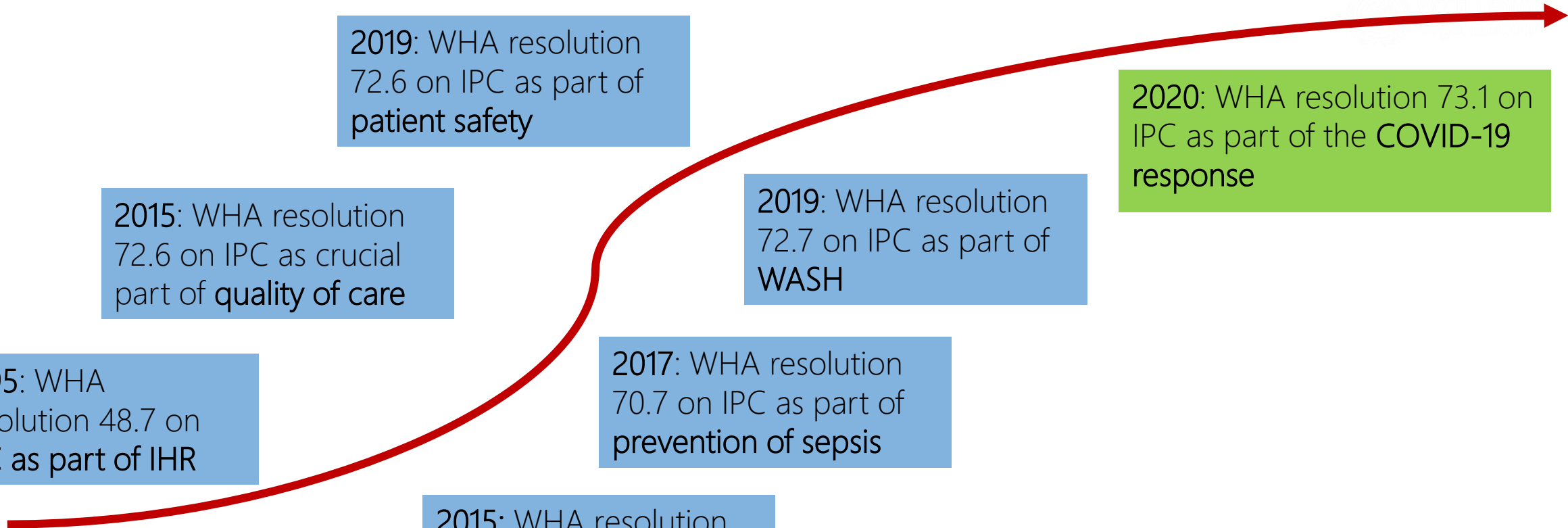
2017: WHA resolution 70.7 on IPC as part of prevention of sepsis

2019: WHA resolution 72.7 on IPC as part of WASH

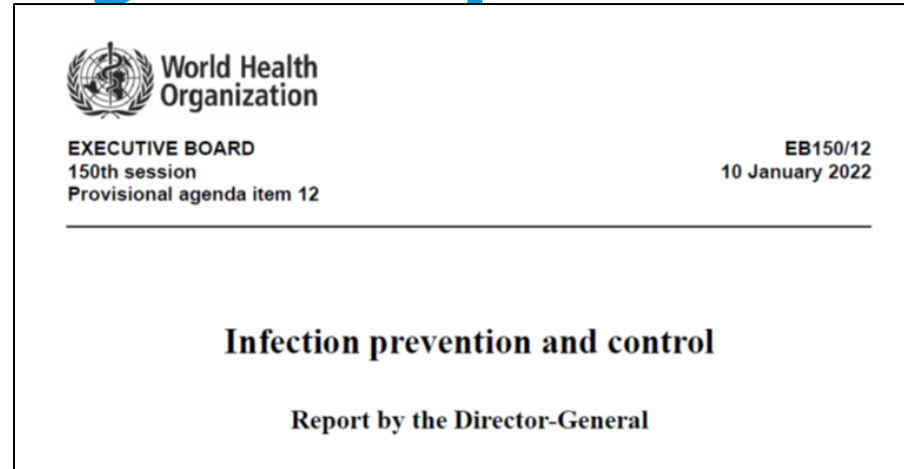
2020: WHA resolution 73.8 on IPC as part of strengthening IHR

2021: WHA resolution 74.7 on IPC as part of preparedness and response

2020: WHA resolution 73.1 on IPC as part of the COVID-19 response



# Elevating the importance of IPC



**WHO advocacy  
&  
MS highlights of  
IPC  
at WHA/EB 2021**

**IPC on EB150  
agenda**

**EB report**

**MS information  
session 1**

**EB150  
discussions**

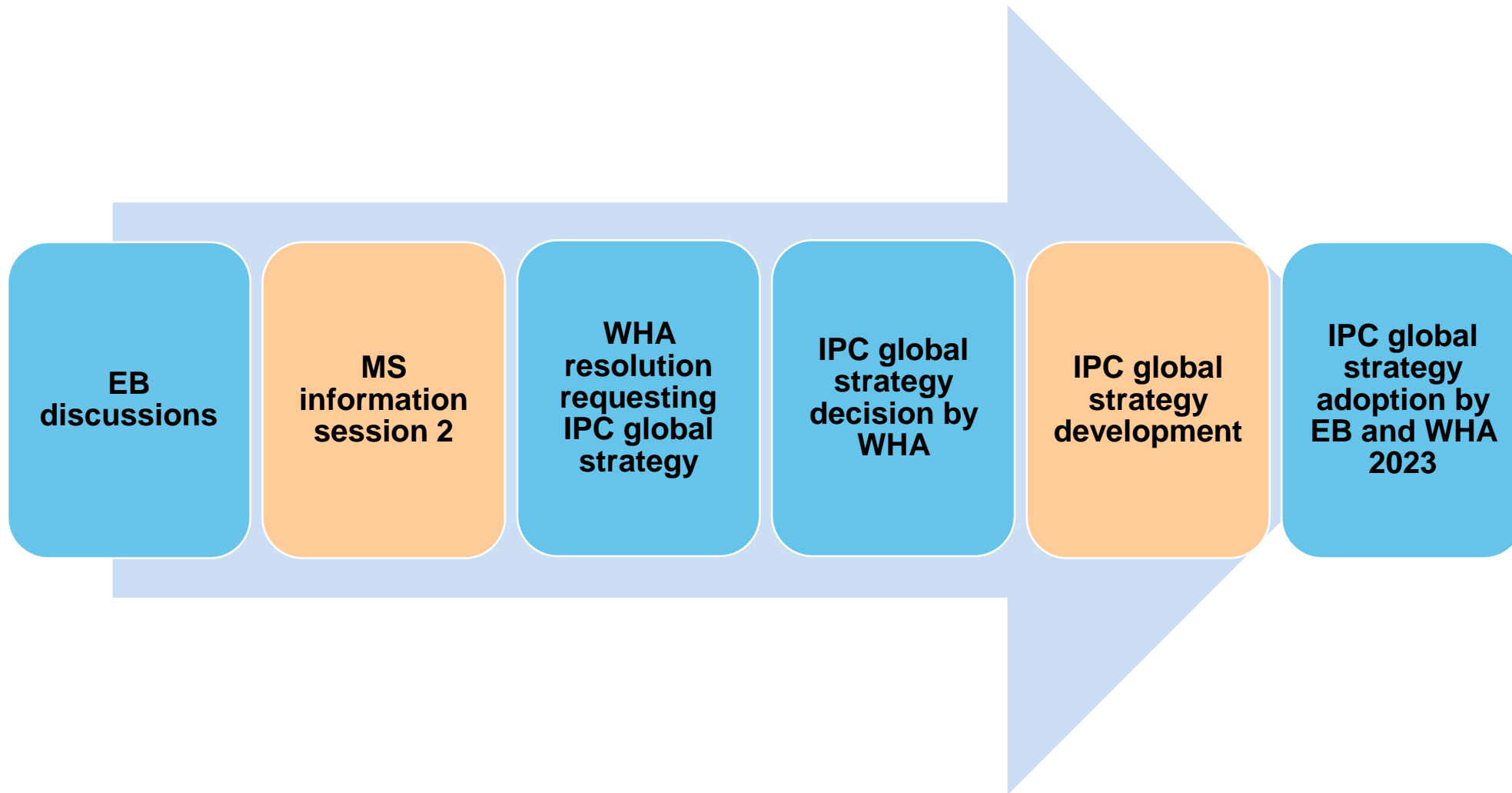
# Thanking all Member States (MS) intervening at EB150



- **Interventions were made by the following MS; France for the EU, Colombia, Malaysia, Singapore, Tajikistan, Denmark, UK, Republic of Korea, Japan, Kenya, USA, Canada, Thailand, Spain, China and Brazil, Guinea Bissau on behalf of the African region, Oman, Philippines, Singapore, Syria on behalf of the Easter Mediterranean region and Timor Leste**
- **MS consistently highlighted the importance of IPC in addressing:**
  - the widespread concern about the silent burden of AMR and health care-associated infections (HAI) but also its
  - infectious hazard health emergency preparedness and response
  - health worker and patient safety
  - provision of high-quality and safe health care through
  - health systems strengthening with a primary health care approach.
- **MS fully recognized the gaps in IPC programmes highlighted by the pandemic**
- **MS highlighted that the COVID-19 pandemic response also presents a unique opportunity to**
  - strengthen IPC programmes at all levels
  - save lives and money
  - help restore communities' trust in health care
- **Guinea Bissau on behalf of the African region, Oman, Philippines, Singapore, Syria on behalf of the Easter Mediterranean region and Timor Leste called for WHO to develop a global IPC strategy**



# Ideal next steps for IPC



# Conclusions:

## Preventing HAI and AMR is Now!



- **Harm** acquired where healthcare is provided should no longer be accepted.
- Several countries have been able to introduce IPC standards despite limited resources and constrained situations.
- A **global strategy** would support a wider implementation of the WHO core components for IPC and WASH.
- This will **save patient and health worker lives** and health care **costs**.

# Thank you for your attention



<https://www.who.int/teams/integrated-health-services/infection-prevention-control>