

THE GLOBAL SITUATION OF INFECTION PREVENTION AND CONTROL (IPC) AND ITS IMPACT ON HEALTH

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World Health
Organization

www.webbertraining.com

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<https://www.who.int/publications/i/item/9789240103986>



Coming soon

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

The investment case for IPC



1. The harm and burden caused by infections acquired in health care
2. The global situation of IPC
3. The health and economic return in IPC investment

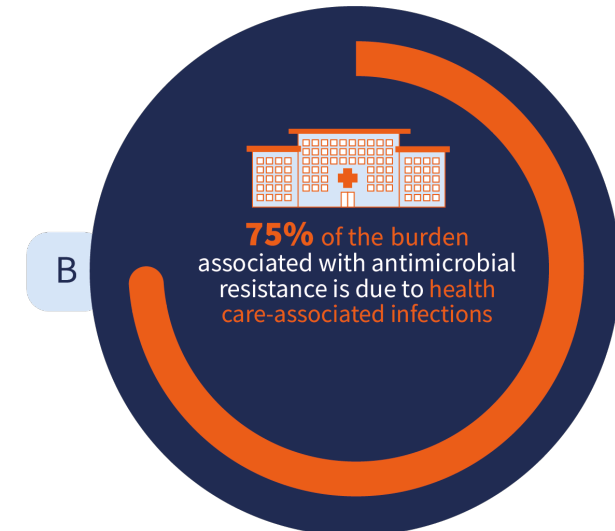
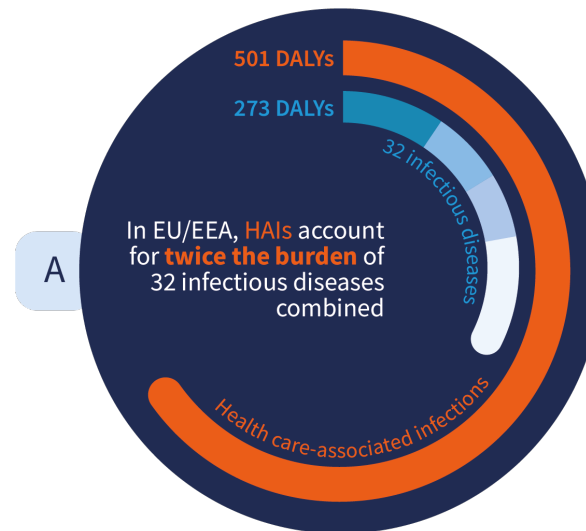
1. The harm and burden caused by infections acquired in health care

The AMR burden is predominantly associated to health care



136 million* hospital-associated antibiotic resistant infections per year, globally

- HAI frequency is significantly higher in low- and middle-income than in high-income countries.
- It varies from about **10%** in the Americas and Eastern Mediterranean regions to up to **27%** in Africa.



*(95% credible interval (CI) 26-246 million)

Balasubramanian R, et al; PLoS Med 2023
<https://doi.org/10.1371/journal.pmed.1004178>

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

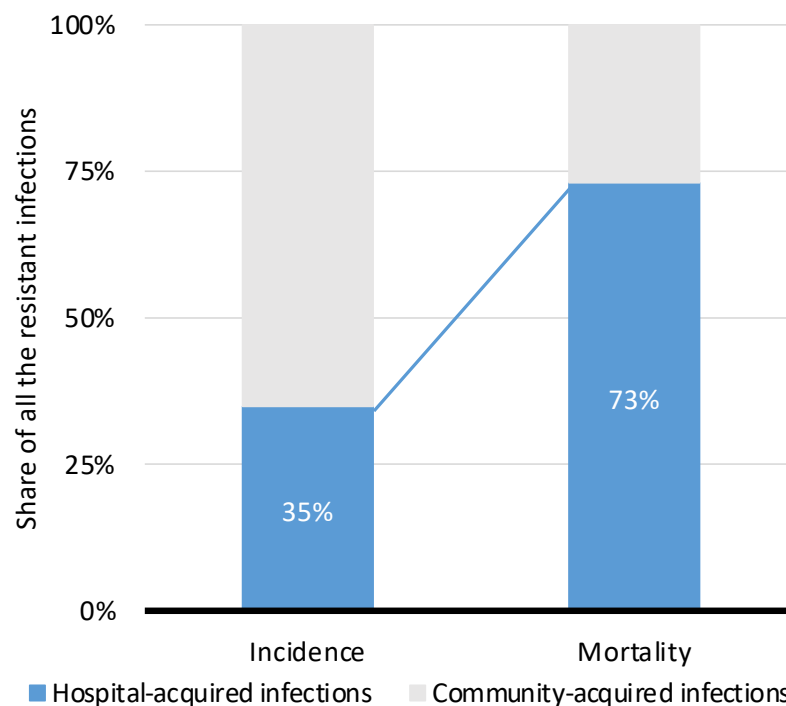
Cassini A, et al. Eurosurveillance 2018;23(16):pii=17-00454

Cassini A, et al. Lancet Infect Dis. 2019 Jan;19(1):56-66. doi: 10.1016/S1473-3099(18)30605-4.

OECD estimates: among the AMR infections, HAI share the highest burden

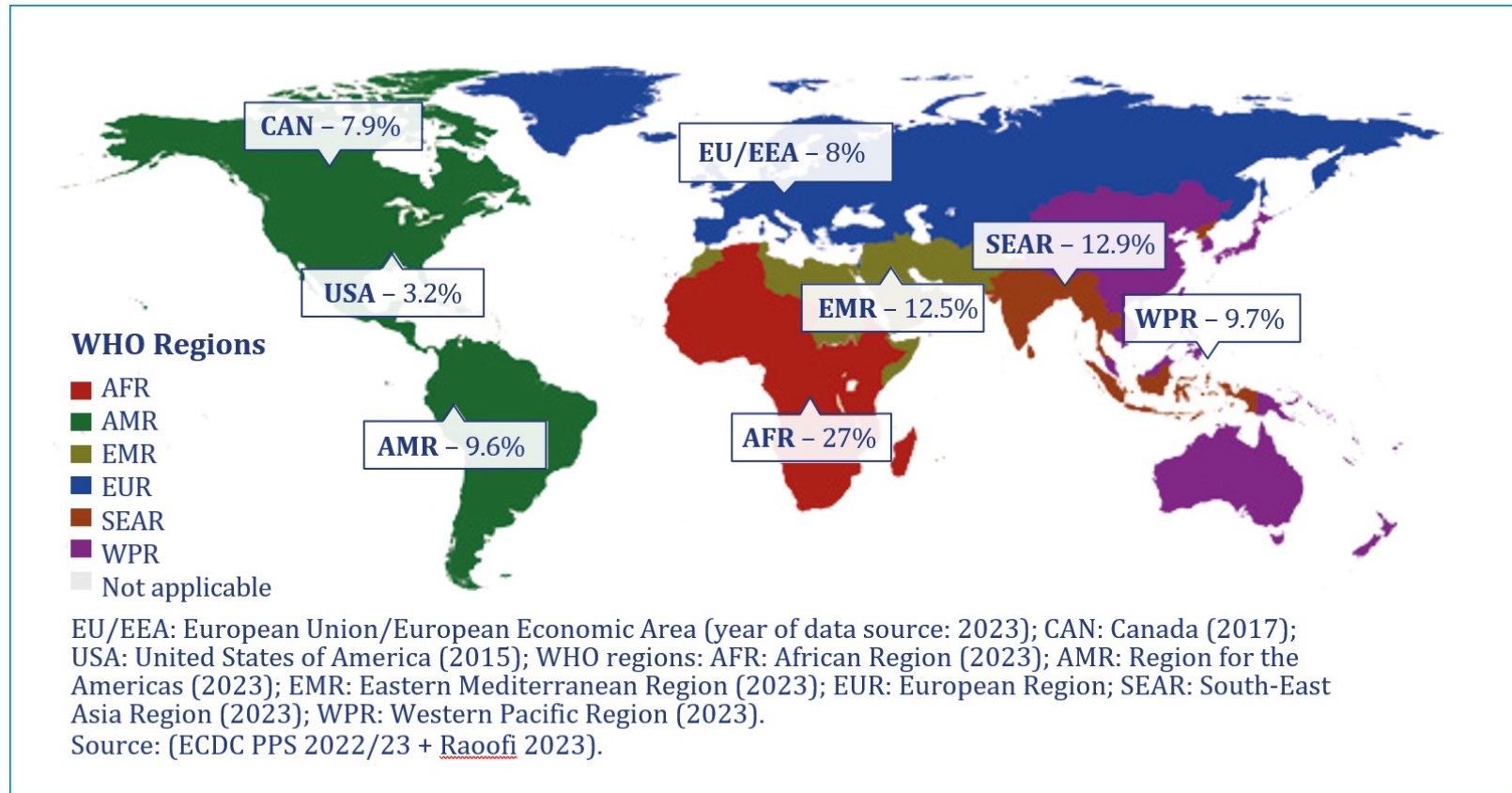


HAIs pose a high health burden



Source: OECD (2023), *Embracing a One Health Approach to Fight Antimicrobial Resistance*, available at: oe.cd/amr-onehealth.

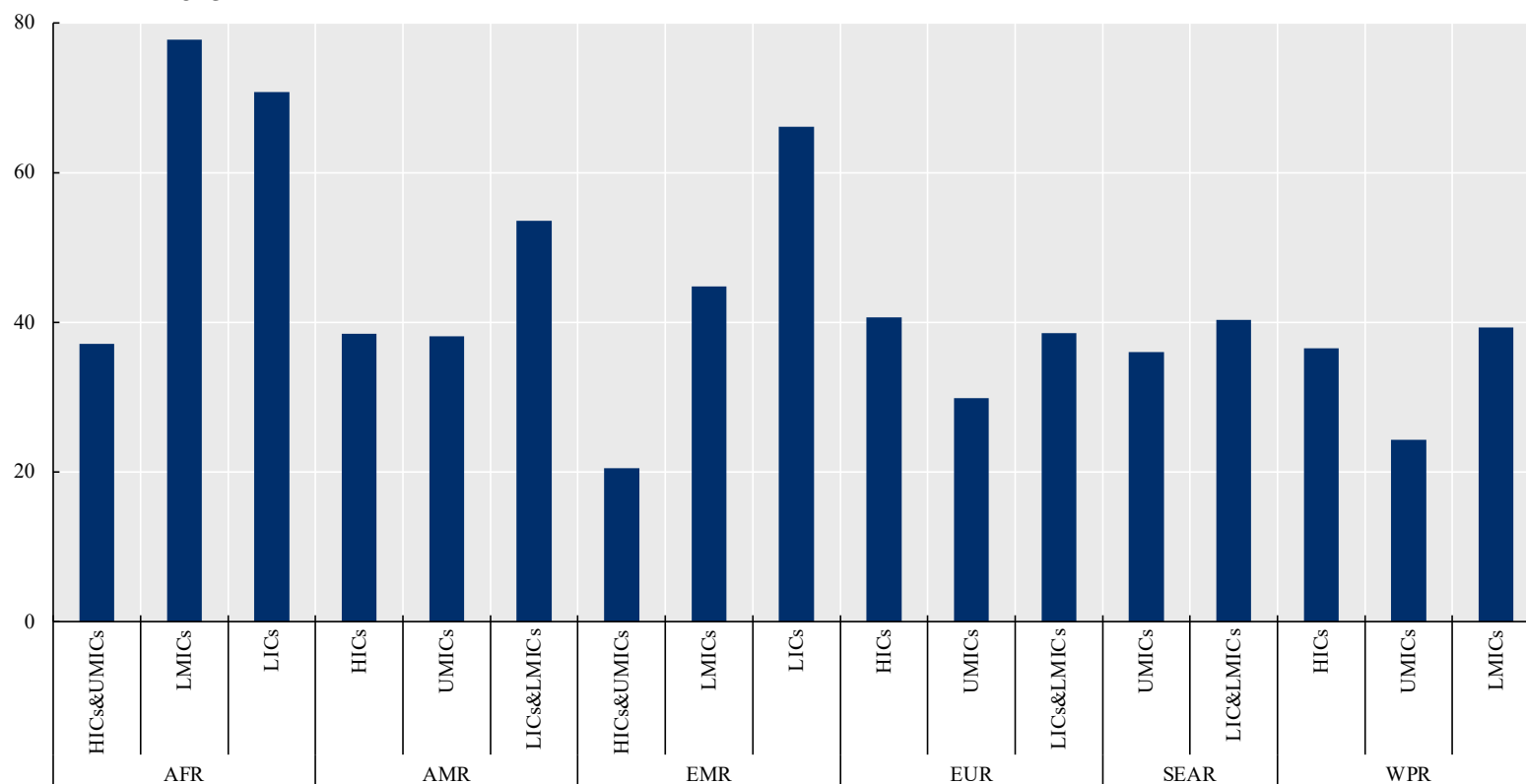
HAI prevalence among hospitalized patients



Significant regional & income-based disparities in annual mortality rates attributable to HAIs



Age-adjusted mortality
per 100 000 persons
2023-24



OECD/WHO study, unpublished data

Healthcare-associated infections – a threat to patient safety in Europe

In 2022 and 2023, ECDC coordinated the third point prevalence survey of healthcare-associated infections (HAIs) and antimicrobial use in European acute care hospitals. Although some HAIs can be treated easily, others may more seriously affect a patient's health, increasing their stay in the hospital and hospital costs. HAIs in hospitals alone cause more deaths in Europe than any other infectious disease under surveillance at ECDC.

On any given day:



Hospitals

1 / 14
hospital patients have
at least one HAI.

93 000
patients have at least
one HAI.

Facts

Over 4 million HAIs were estimated to occur each year in European hospitals.

The most frequent HAIs in acute care hospitals are respiratory tract infections (including pneumonia and COVID-19), urinary tract infections, surgical site infections, bloodstream infections, and gastrointestinal infections

At least 20% of HAIs are considered preventable.



Microbiological samples

HAIs are frequently treated without taking microbiological samples or samples remain negative.



Microorganisms

The responsible microorganism was identified in 65% of HAIs in hospitals.



Resistance to antibiotics

1 in 3 bacteria associated with HAIs, in hospitals, was resistant to antibiotics.

Measures to prevent healthcare-associated infections:



Infection prevention and control, including hand hygiene ensuring availability of alcohol-based hand rub dispensers at the bed side.



An adequate number of specialised infection control staff, having even up to 1 infection prevention and control nurse per 100 hospital beds.



Appropriate use of antibiotics through well-established antimicrobial stewardship programmes.



Improved information for patients, residents and their relatives about what they can themselves do to prevent HAIs and to use antibiotics prudently.



Screening for carriage of infection with multidrug-resistant bacteria and proper isolation capacity for patients with microorganisms resistant to antibiotics and other microorganisms posing a risk when transmitted to other patients, by ensuring a sufficient number of single rooms in each hospital.



Improved regular monitoring of healthcare-associated infections.



Training for all healthcare staff.

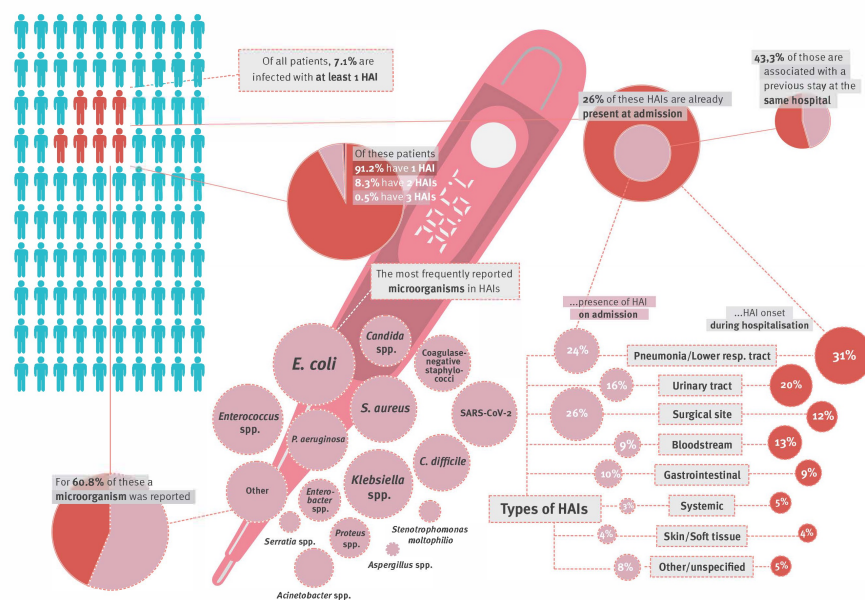


Improved microbiological laboratory support in hospitals.

Healthcare-associated infections (HAIs) in European hospitals



In 2022 and 2023, ECDC coordinated the third point prevalence survey (PPS) to collect data on healthcare-associated infections (HAIs) and on antimicrobial use in European hospitals.



Source: www.ecdc.europa.eu/en/publications-data/healthcare-associated-infections-european-hospitals, ECDC, 2024

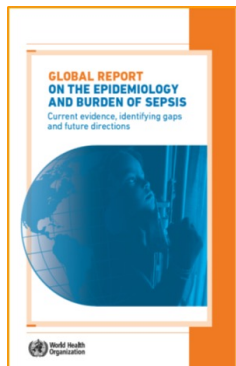
<https://www.ecdc.europa.eu/en/healthcare-associated-infections-acute-care-hospitals/facts/infographics>



ecdc.europa.eu
antibiotic.ecdc.europa.eu

#KeepAntibioticsWorking
 #EAAD

Health care-associated (HA) sepsis mortality



Hospital-acquired sepsis cases

1 in 4 cases of sepsis were acquired in the hospital

Patients with hospital-acquired sepsis had a longer length of stay and high AMR rates, which can significantly impact on patient outcomes.

Sepsis and mortality

24.4% mortality of patients with HA-sepsis

52.3% mortality among ICU-treated patients with HA-sepsis

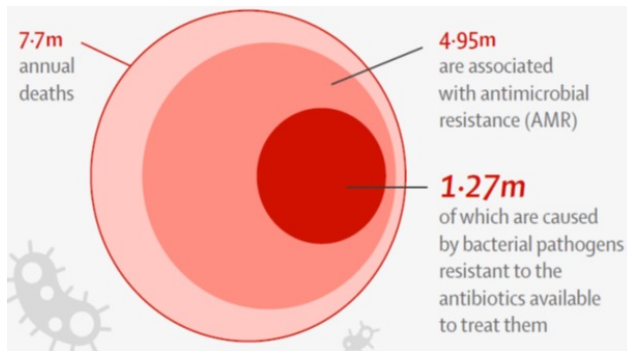
2x to 3x higher median length of stay of patients with HA-sepsis compared to community-acquired sepsis

Up to one third of HA-sepsis cases were caused by drug-resistant bacteria

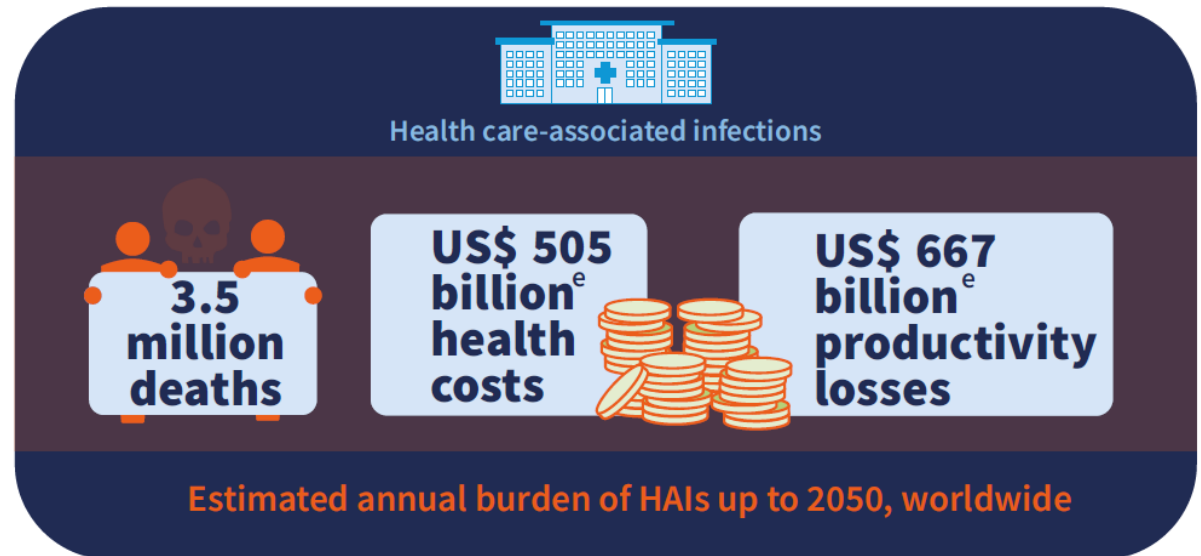
Markart R, et al. Intensive Care Med 2020, <https://doi.org/10.1007/s00134-020-06106-2>

WHO Global Report on the Epidemiology and Burden of Sepsis, 2020, <https://www.who.int/service/safety/areas/sepsis/en/>

HAIs have huge consequences on people lives and health systems



The Lancet Series on Antimicrobial Resistance, 2024.
https://www.thelancet.com/series/antibiotic-resistance?dgcid=tlcom_infographic_amr2024_lancet

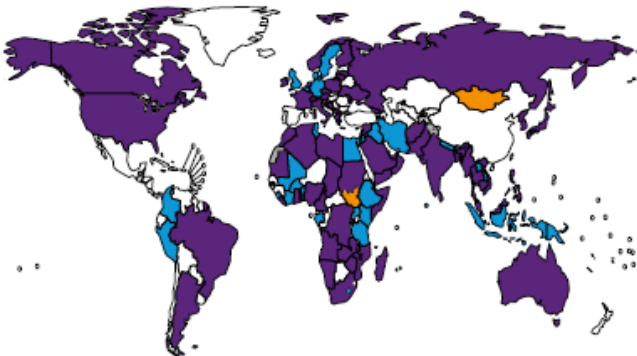


^eAdjusted to purchasing power parity

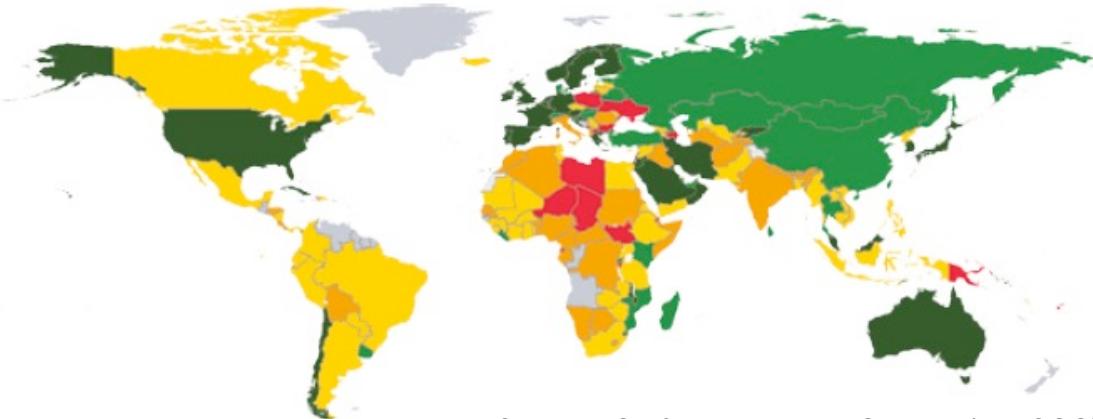
WHO global report 2024 and investment case on IPC.
<https://www.who.int/publications/i/item/9789240103986>

2. The global situation of IPC

Existing monitoring systems used to draw the IPC MF indicators



WHO Global Antimicrobial Resistance and Use Surveillance System (GLASS)



Tripartite Antimicrobial Resistance Country Self-assessment Survey (TrACSS)

JMP service ladders for WASH in health care facilities

SERVICE LEVEL	WATER	SANITATION	HYGIENE	WASTE MANAGEMENT	ENVIRONMENTAL CLEANING
BASIC SERVICE	Water is available from an improved source* on the premises.	Improved sanitation facilities* are usable, with at least one toilet dedicated for staff, at least one sex-separated toilet with menstrual hygiene facilities, and at least one toilet accessible for people with limited mobility.	Functional hand hygiene facilities (with water and soap and/or alcohol-based hand rub) are available at points of care, and within five metres of toilets.	Waste is safely segregated into at least three bins, and sharps and infectious waste are treated and disposed of safely.	Protocols for cleaning are available, and staff with cleaning responsibilities have all received training.
LIMITED SERVICE	An improved water source is available within 500 metres of the premises, but not all requirements for a basic service are met.	At least one improved sanitation facility is available, but not all requirements for a basic service are met.	Functional hand hygiene facilities are available either at points of care or toilets but not both.	There is limited separation and/or treatment and disposal of sharps and infectious waste, but not all requirements for a basic service are met.	There are cleaning protocols and/or at least some staff have received training on cleaning.
NO SERVICE	Water is taken from unprotected dug wells or springs, or surface water sources, or an improved source that is more than 500 metres from the premises; or there is no water source.	Toilet facilities are unimproved (e.g. pit latrines without a slab or platform, hanging latrines, bucket latrines) or there are no toilets.	No functional hand hygiene facilities are available either at points of care or toilets.	There are no separate bins for sharps or infectious waste, and sharps and/or infectious waste are not treated/disposed of.	No cleaning protocols are available and no staff have received training on cleaning.

* Improved water sources are those that by nature of their design and construction have the potential to deliver safe water. These include piped water, boreholes or tubewells, protected dug wells, protected springs, rainwater, and packaged or delivered water. Improved sanitation facilities are those designed to hygienically separate human excreta from human contact. These include wet sanitation technologies – such as flush and pour-flush toilets connecting to sewers, septic tanks or pit latrines – and dry sanitation technologies – such as dry pit latrines with slabs, and composting toilets.

FIGURE 1 JMP service ladders for global monitoring of WASH in health care facilities

WHO/UNICEF Joint Monitoring Programme for WASH in HCFs

2022				
Capacity 9				
Infection prevention and control (IPC)				
Score per indicator				Total
9.1	C.9.2	C.9.3		C.9
AVG Global Capacity	64	59	62	62
AFRO	53	40	44	46
AMRO	61	63	58	61
EMRO	67	57	65	63
EURO	71	72	77	74
SEARO	62	56	60	59
WPRO	75	65	72	71

WHO IPC portal

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

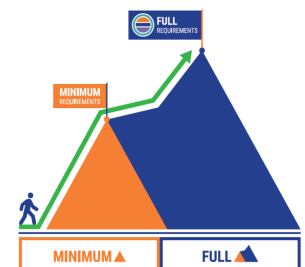
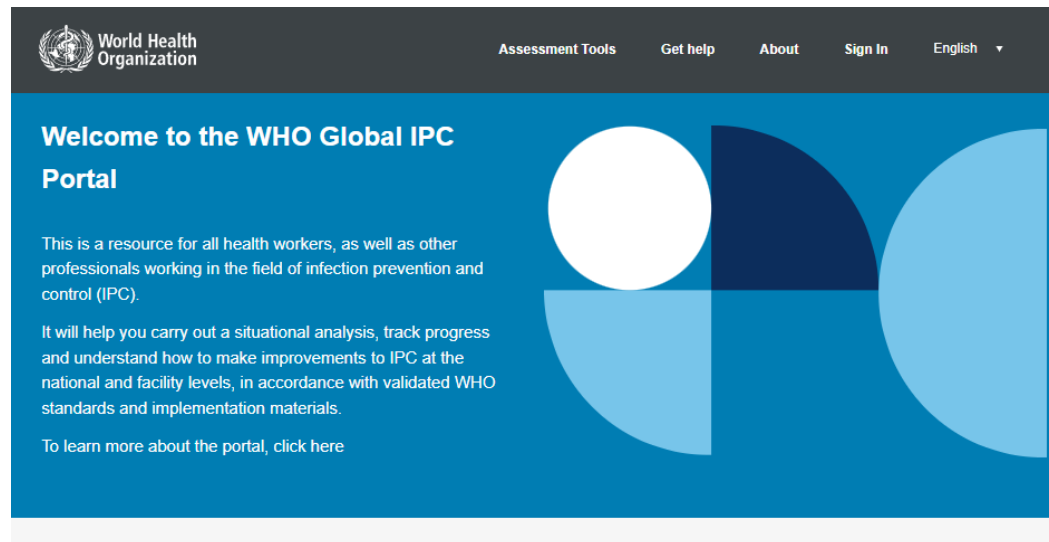


What is the portal?

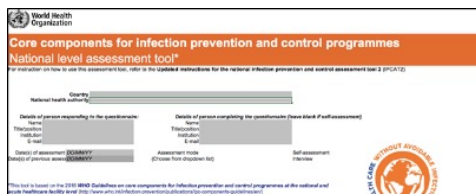
The WHO Global IPC Portal is a new WHO resource to support situation analysis, tracking progress and making improvements to IPC programmes and/or activities at the national and facility levels, in accordance with WHO standards and associated implementation materials.

Who is it for?

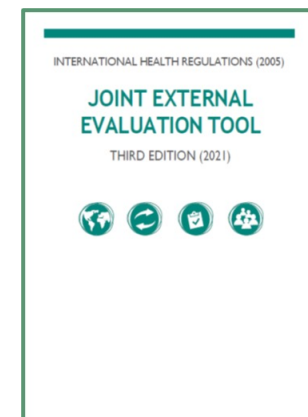
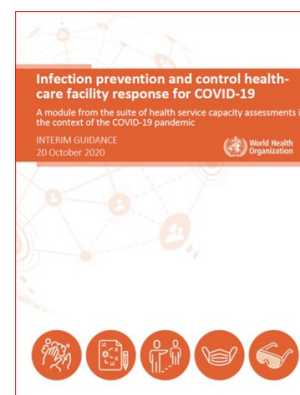
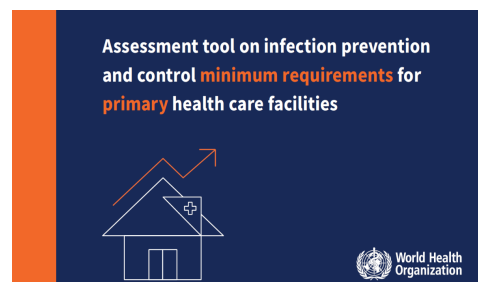
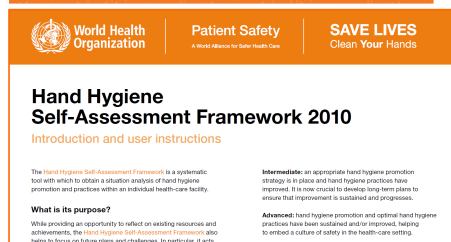
All health-care and other professionals working in the field of IPC



Existing national & facility level assessment tools used to draw the IPC MF indicators



Assessment tool of the minimum requirements for infection prevention and control programmes at the national level



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

Tripartite AMR Country Self-Assessment Survey



Box 3.2. The five levels (A to E) of classification of IPC programmes in TrACSS

- A. No national infection prevention and control (IPC) programme or operational plan is available.
- B. A national IPC programme or operational plan is available. National IPC and water, sanitation and hygiene (WASH) and environmental health standards exist but are not fully implemented.
- C. A national IPC programme and operational plan are available and national guidelines for health care IPC are available and disseminated. Selected health facilities are implementing the guidelines, with monitoring and feedback in place.
- D. A national IPC programme available, according to the WHO IPC core components guidelines and IPC plans and guidelines implemented nationwide. All health care facilities have a functional built environment (including water and sanitation), and necessary materials and equipment to perform IPC, per national standards.
- E. IPC programmes are in place and functioning at national and health facility levels, according to the WHO IPC core components guidelines. Compliance and effectiveness are regularly evaluated and published. Plans and guidance are updated in response to monitoring.

Abbreviations: TrACSS, Tracking AMR Country Self-Assessment Survey; IPC, infection prevention and control; WASH, water, sanitation and hygiene.

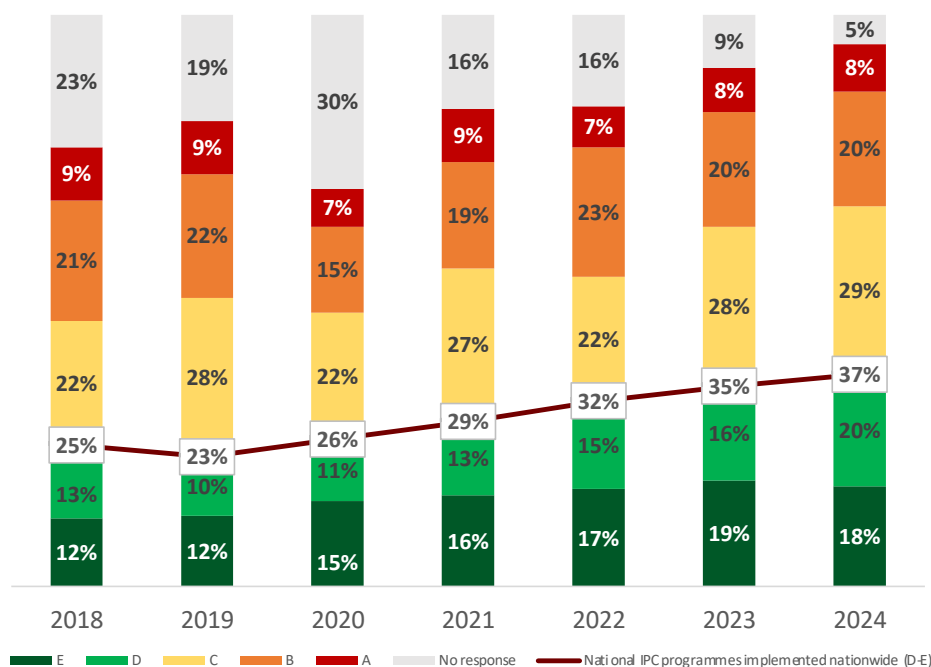
Source: (124).

National implementation of IPC programmes



Tripartite AMR Country Self-Assessment Survey

7-year trend: National IPC programmes (% of N=194)



- **93%:** countries reporting to have **IPC programme/plan**
- **44%:** have a dedicated **budget**
- **38%:** are **implementing** the IPC programme **nationwide**

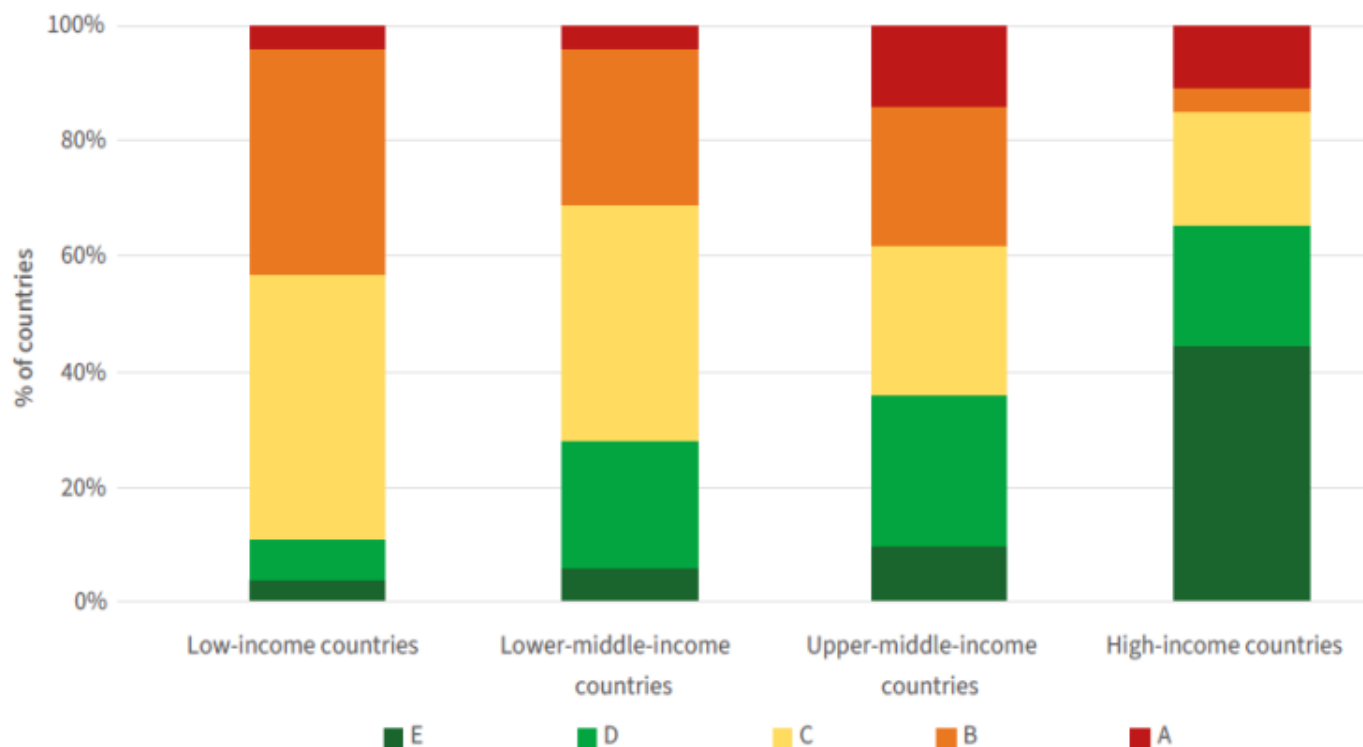


Country progress with developing national IPC programmes and implementing them (level D-E) has been slow but steadily growing

<https://amrcountryprogress.org/>

Note: A - No national IPC programme/operational plan is available. B - A national IPC programme/operational plan is available with national IPC and WASH and environmental health standards but are not fully implemented. C - A national IPC programme/operational plan and national guidelines for health care IPC are available and disseminated, but selected health facilities are implementing the guidelines, with monitoring. D - National IPC programme available according to the WHO IPC core components guidelines* and IPC plans and guidelines implemented nationwide. E - IPC programmes are in place and functioning at national and health facility levels according to the WHO IPC core components guidelines; compliance and effectiveness are regularly evaluated and published, plans and guidance are updated in response to monitoring.

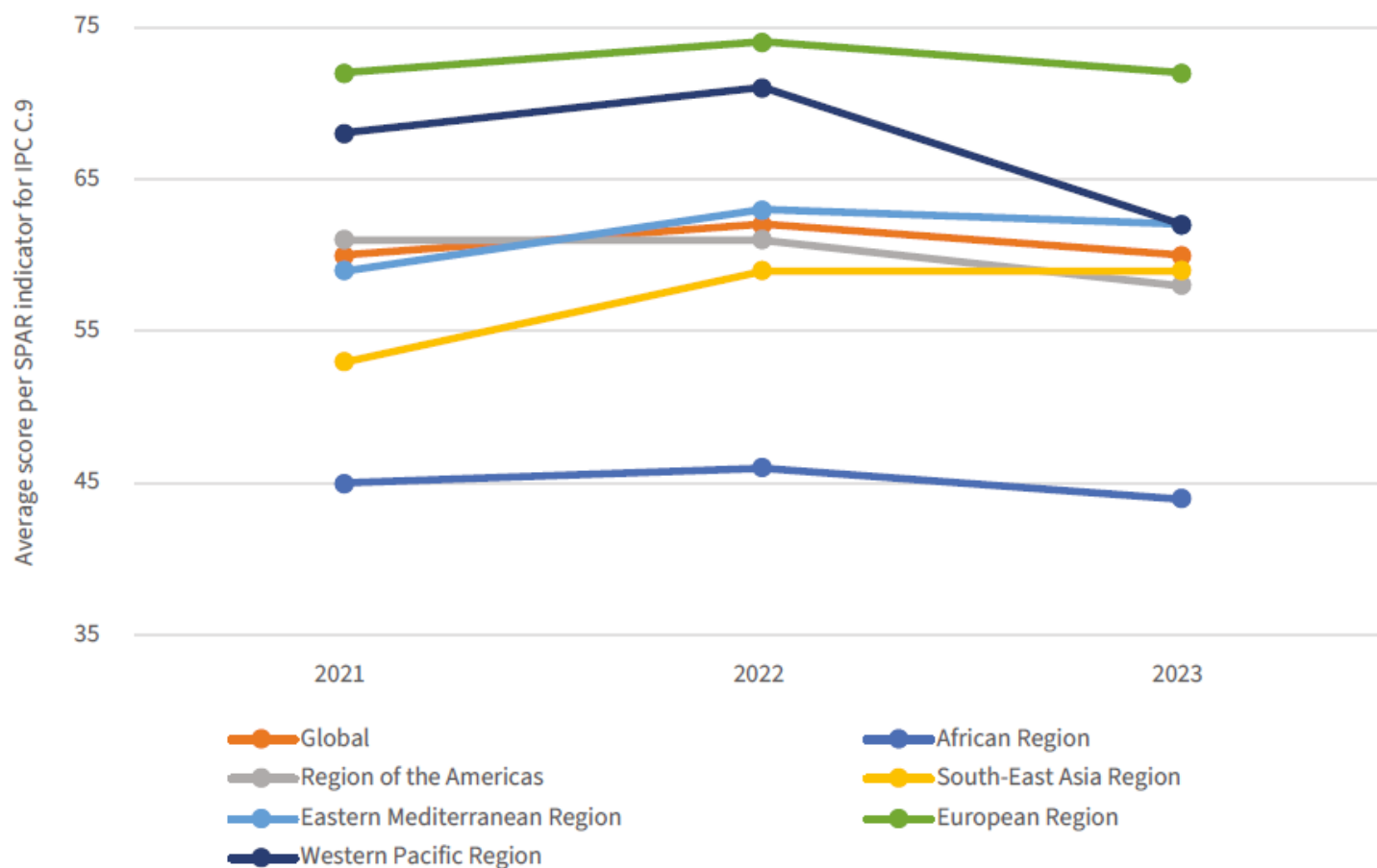
Tripartite AMR Country Self-Assessment Survey 2024 by income level



TrACSS results by level and income, percentage of countries (total N=184)

<https://amrcountryprogress.org/>

IHR implementation assessment 2021-23 – IPC component for outbreaks preparedness



WHO global survey on minimum requirements for IPC programmes at the national and facility levels – 2023-24

22 November 2023 – 31 May 2024

Participation of **150 countries and 5537 facilities**
from all regions and type of facility

Globally, major WASH and IPC gaps persist: 2024 global reports



WATER

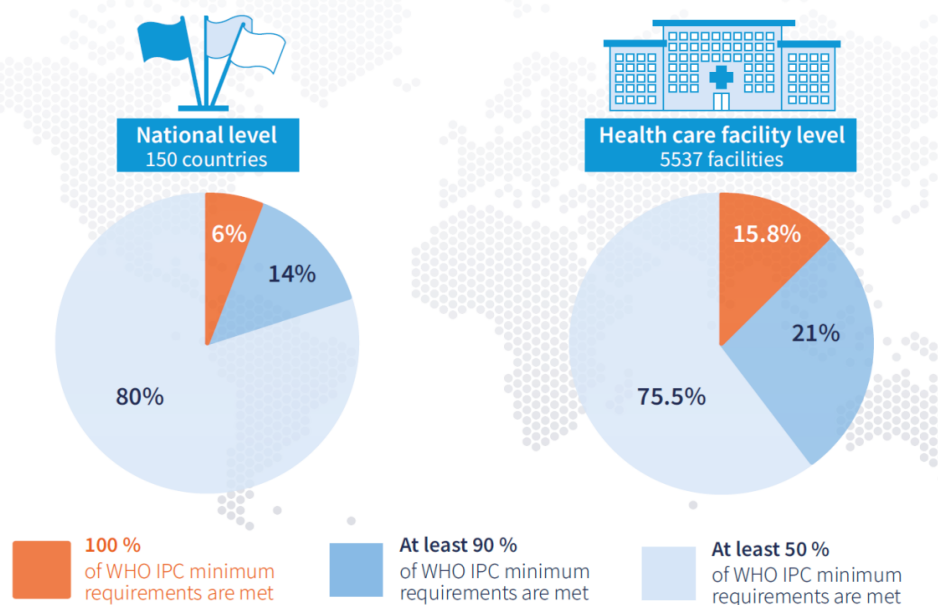
1 in 4 HCFs lacks **basic water**—facilities serving 1.7 billion people



HAND HYGIENE

2 in 5 HCF lacks basic **hand hygiene** (at points of care and toilets)

WHO Global survey on IPC, 2023–2024



Source: WASH in health care facilities 2023 data update: special focus on primary health care. WHO/UNICEF, 2024; <https://washdata.org/reports/jmp-2024-wash-hcf>; WHO Global report on IPC 2024

High level of implementation at the national level



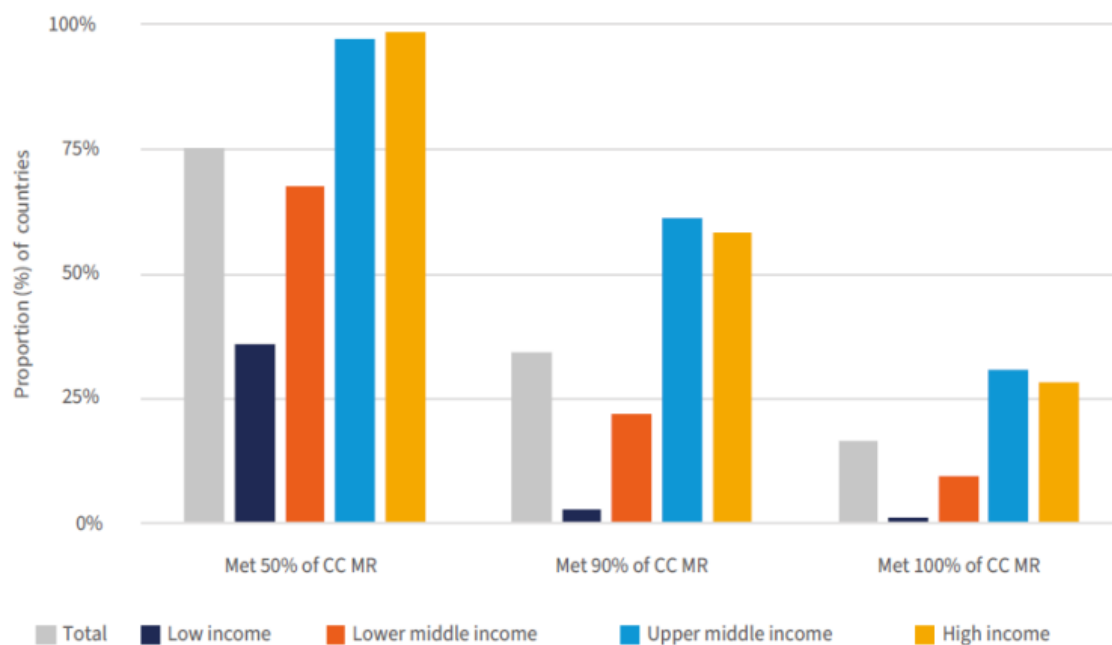
- **Guideline development:** approximately 9 out of 10 countries (90.7% [136 of 150]) have mandates to produce guidelines for preventing HAIs. Among these, 88% of countries (132 of 150) reported to use evidence-based, scientific knowledge in the development of IPC guidelines and 82% (123 of 150) actively addressed guideline adaptation to local conditions.
- **Multimodal improvement strategies (MMIS):** approximately 7 out of 10 countries (71.3% [107 of 150]) have trained IPC focal points and 75.3% (113 of 150) promote MMIS.
HICs show high implementation, with 72.9% (35 of 49) having trained IPC focal points and 83.3% (40 of 49) promoting MMIS.

Lowest level of implementation at the national level



- **Budget allocation:** fewer than one half (44% [66 of 150]) of countries have a dedicated IPC budget and only 33% in LICs (8 of 24).
- **Training and education:** while in more than 8 out of 10 countries (81.3% [122 of 150]) the national IPC programme provides content for IPC training, only 38% (57 of 150) have a national IPC curriculum.
- **HAI surveillance:** just over one half (53.3% [80 of 150]) of countries have a multidisciplinary technical group for HAI surveillance, but LICs lag notably, with only 25% (6 of 24) having it
- **Monitoring and evaluation:** slightly more than one half (51.3% [77 of 150]) of countries have a strategic plan and system for IPC monitoring, with HICs leading at 58.3% (28 of 49) and lower proportions in LICs (45.8% [11 of 24]).

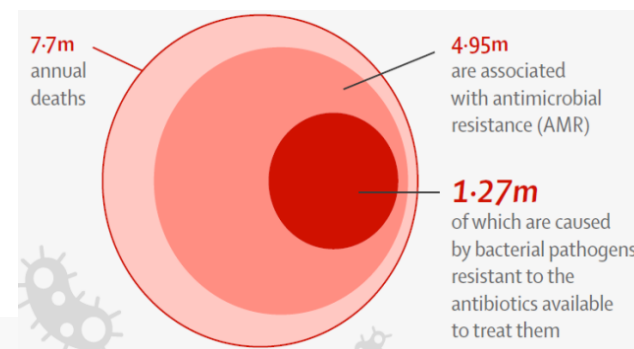
IPC implementation at the facility level, 2023-24



- HICs more advanced in the implementation of all IPC core components, while
- LICs had a notably limited implementation of IPC guidelines, training and education, monitoring, audit, feedback and HAI surveillance.
- Particularly in LMICs, the facilities lacked full-time IPC professionals, an allocated IPC budget, routine microbiological laboratory support, and appropriate workload, staffing and bed occupancy.
- 65.6% of primary facilities, 75.4% of secondary facilities, and 83.2% of tertiary facilities reported having sufficient personal protective equipment, with significant differences across income levels.

3. The health return in IPC investment

Prevention first: existing interventions can have a significant impact in LMICs



Existing interventions can have a significant impact in LMICs

Findings of the *Lancet* AMR Series indicate that reducing global AMR-associated deaths by 10% by the year 2030 is achievable with existing interventions. These findings provide robust evidence to guide countries in prioritising public health interventions, offering the greatest potential to mitigate AMR burden. For example:

Aligning IPC standards



-337 000 deaths

Aligning infection prevention and control (IPC) standards in LMIC healthcare settings with those of HICs could prevent up to 337 000 AMR-associated deaths annually

Access to WASH services



-247 800

Achieving universal access to water, sanitation, and hygiene (WASH) services could prevent up to 247 800 AMR-associated deaths annually

High-priority paediatric vaccines



-181 500

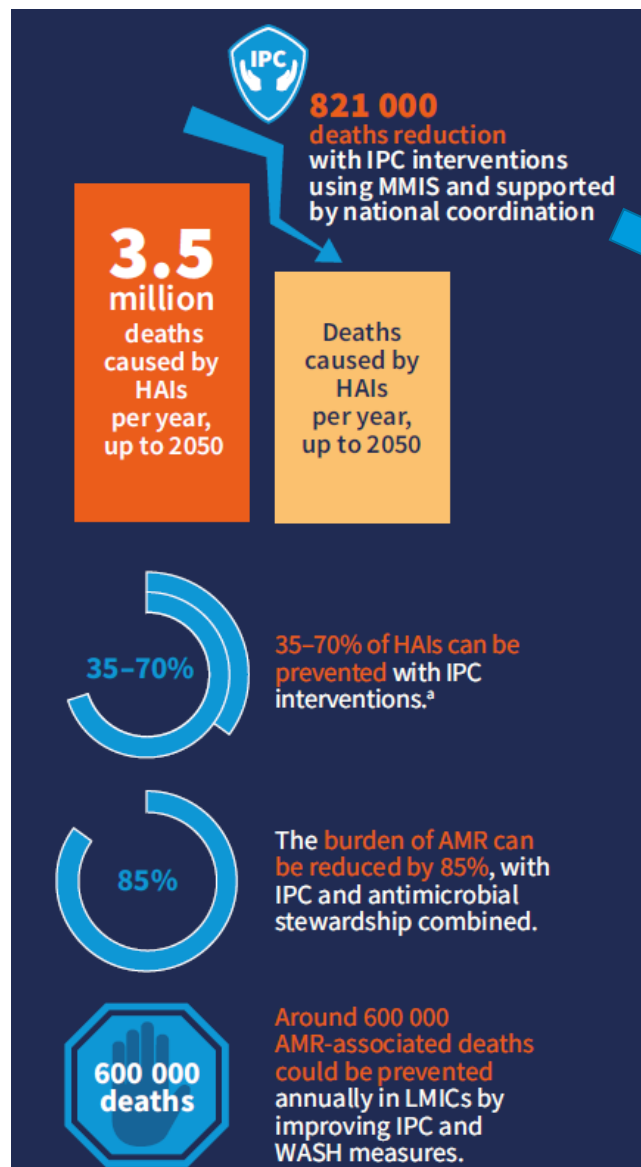
Achieving universal coverage of high-priority paediatric vaccines—such as those against rotavirus, pneumococci, and RSV—could prevent up to 181 500 AMR-associated deaths annually



- 10%

LMICs=low-income and middle-income countries; HICs=high-income countries; Image credits: Tima Miroshnichenko; PICHA Stock; ER Productions Limited

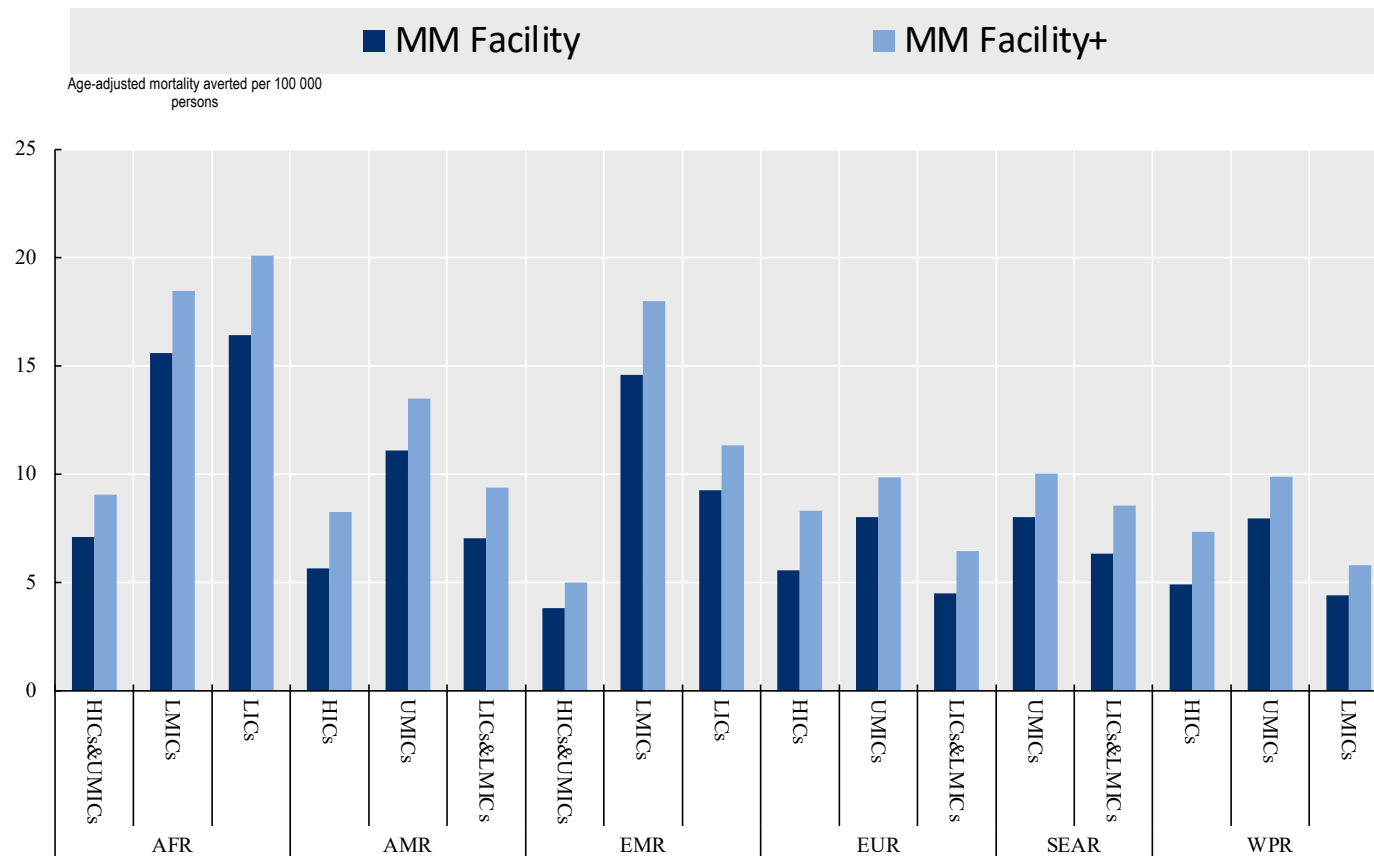
The Lancet Series on Antimicrobial Resistance, 2024. https://www.thelancet.com/series/antibiotic-resistance?dgcid=tlcom_infographic_amr2024_lancet



Implementation of MMIS at the HCFs to reduce targeted HAIs, supported by national or subnational coordination

^a WHO global report on IPC 2022 (<https://www.who.int/publications/i/item/9789240051164>)

Scaling up MMIS interventions could lead to significant reductions in annual mortality rates attributable to HAIs



OECD/WHO study, unpublished data

Country story



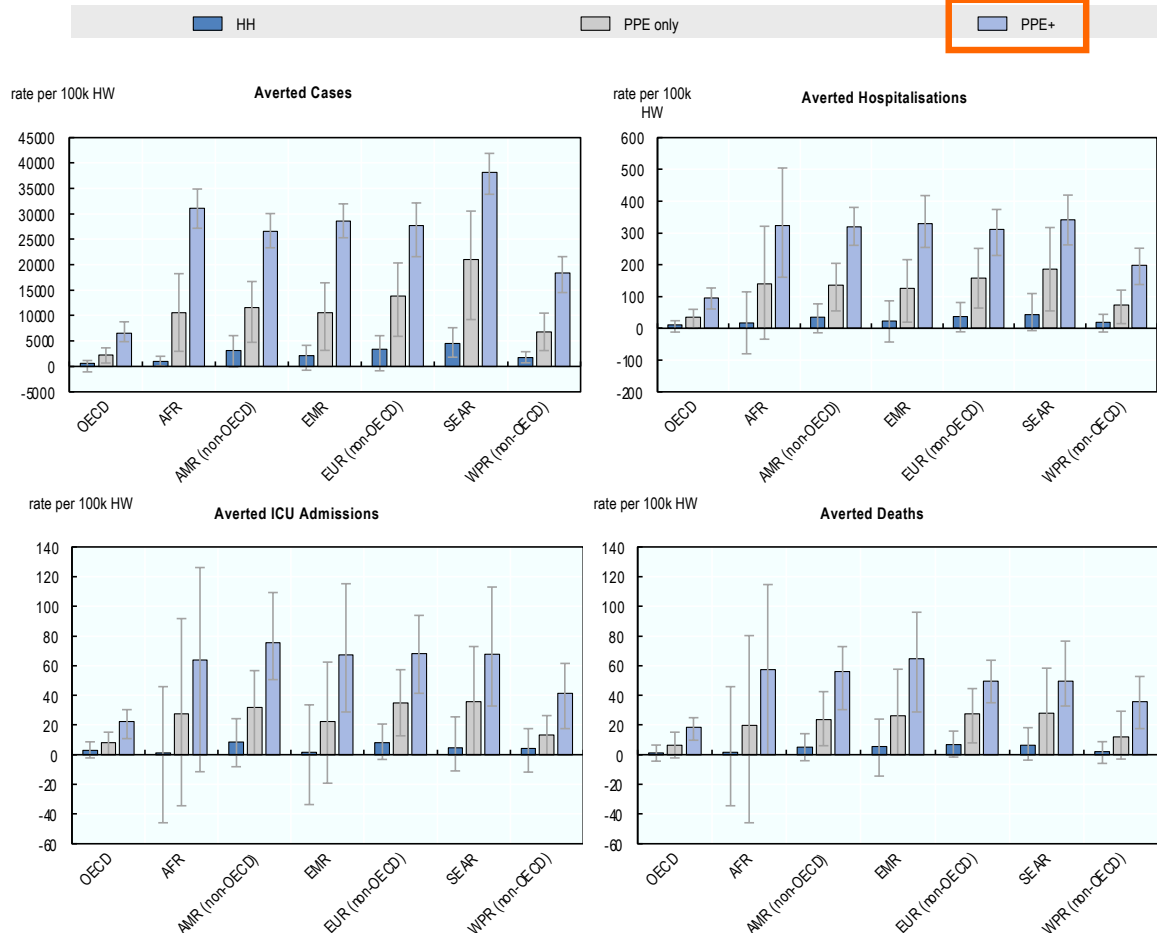
Leading with excellence: Saudi Arabia's national initiative to reduce central line-associated bloodstream infections

<https://www.who.int/news-room/feature-stories/detail/infection--prevention-and-control-excellence-in-the-kingdom-of-saudi-arabia--reducing-central-line-associated-bloodstream-infections>

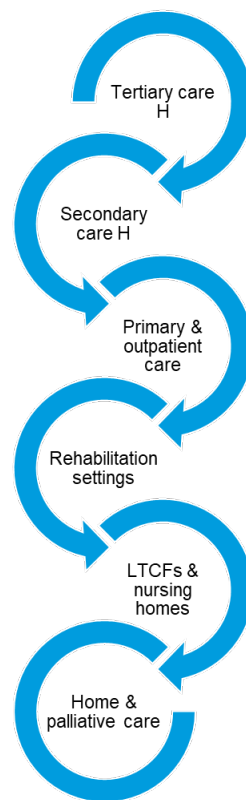
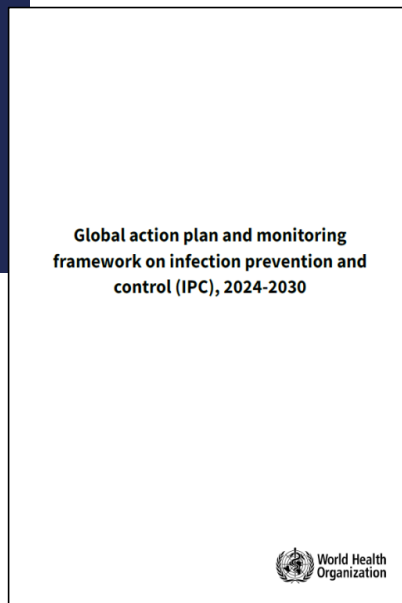
Return on investment of IPC interventions in healthcare settings for preparing against SARS-CoV-2 among health workers



Combining increased access to PPE and IPC education and training (PPE+) could have averted 9.8 million new infections in health workers



IPC 2024-2030: a new global strategy and action plan

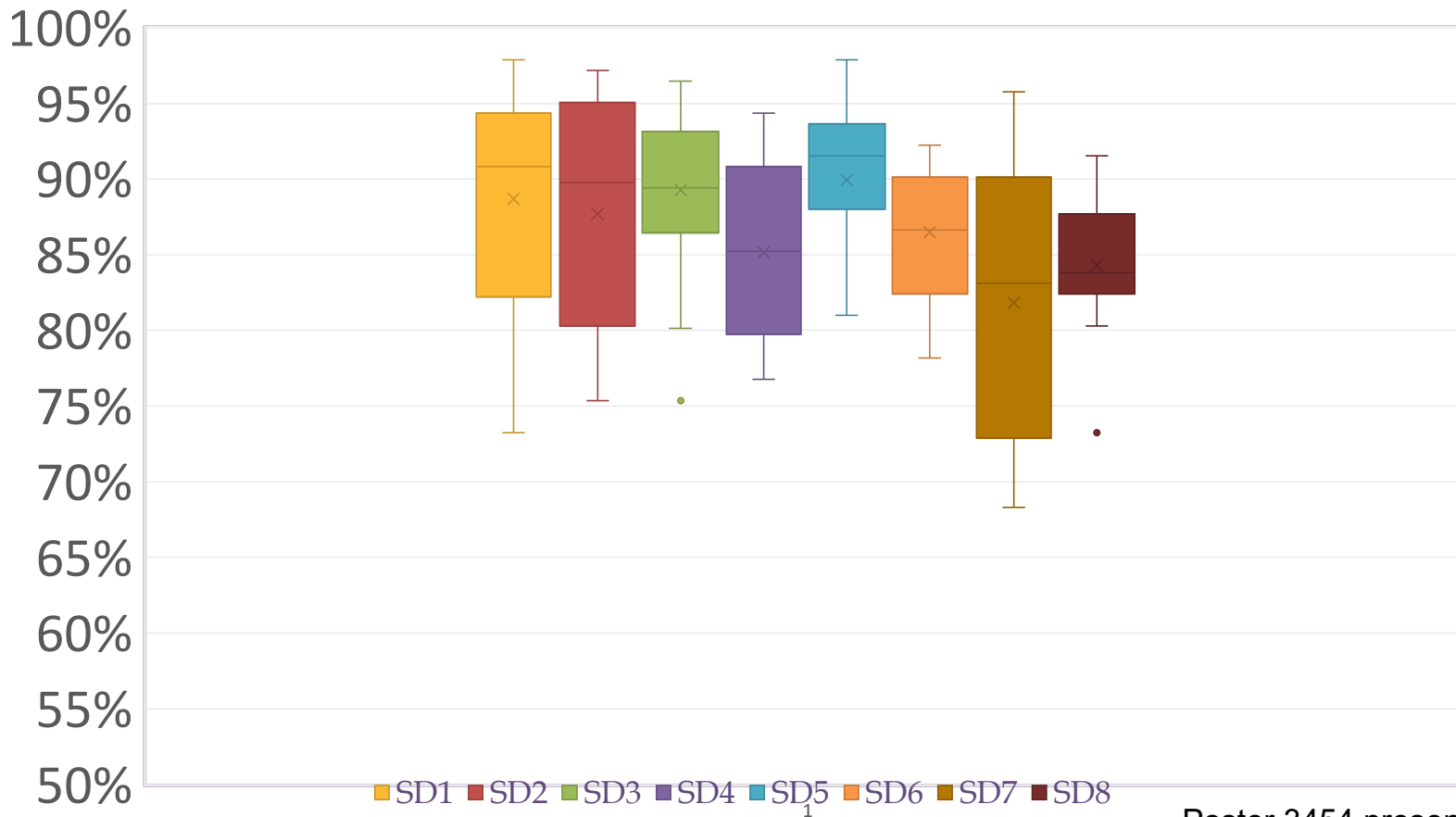


By 2030, everyone
accessing or
providing health
care is safe from
associated
infections



<https://www.who.int/publications/m/item/global-strategy-on-infection-prevention-and-control>

WHO IPC monitoring framework: 131 indicators and 27 targets with high level of consensus through a Delphi study



Poster 3454 presented at ECCMID 2024

IPC monitoring framework: global priority targets*, 2024-2030



Increase** of proportion of countries:

1. with a **costed and approved national action plan and monitoring framework** on IPC
2. with an identified **dedicated budget** allocated to fund the national IPC programme and action plan
3. with **legislation /regulation** to address IPC
4. meeting **all WHO IPC Minimum Requirements** for IPC programmes at national level
5. with national IPC programmes at Level 4 or 5 in SPAR 9.1 and Level D or E in TrACSS 3.5 (**highest levels**)
6. with basic **water (1), sanitation (2), hygiene (3), and waste services (4)** in all health care facilities
7. with a national **HAI and related AMR surveillance system**
8. that have achieved their **national targets on reducing HAIs**

*Monitoring framework identified through a Delphi survey including 142 experts & MS IPC national focal points; **up to 80-100%

IPC monitoring framework: national priority targets*, 2024-2030



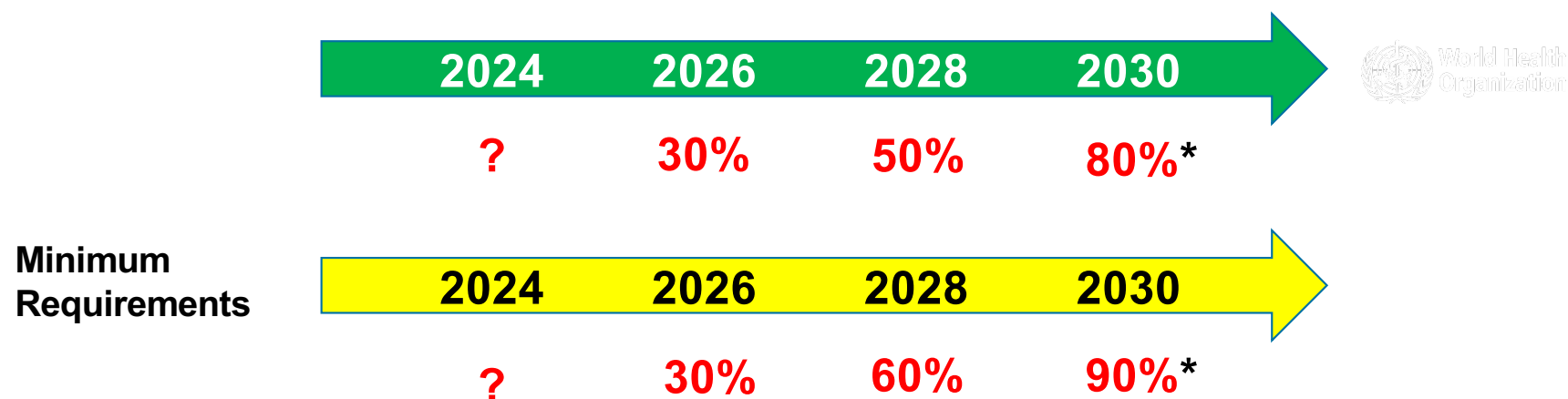
Increase** of proportion of health care facilities:



1. meeting **all WHO IPC Minimum Requirements** for IPC programmes
2. **with a dedicated and sufficient funding for WASH services and activities**
3. **providing and/or requiring IPC training to all frontline clinical and cleaning staff and managers**
4. having an **HAI and related AMR surveillance system**

*Monitoring framework identified through a Delphi survey including 142 experts & MS IPC national focal points; **up to 80-100%

Measuring targets over time



*with a view of evaluating status in 2030, and setting new target (likely to be 100%) for 2035

Examples of baseline situation vs GAP targets by 2030 (1)

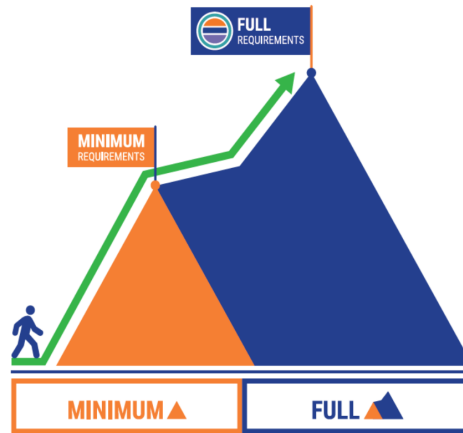
Priority area	2022–2024 key data: national level	National target by 2030	2022–2024 key data: facility level	Facility target by 2030
Political commitment	44% of countries (66 of 150) have a dedicated budget for the IPC programme.	Increase of the proportion of countries with an identified dedicated budget allocated to the national IPC programme and action plan to: 50% by 2026 75% by 2028 >90% by 2030	43.1% of health care facilities (751 of 1742; secondary and tertiary) have a dedicated budget for IPC activities.	Increase of the proportion of health care facilities with an adequate dedicated budget for IPC to: 30% by 2026 50% by 2028 >80% by 2030
	<i>No data currently exist on the proportion of countries with legislation/regulations to address IPC.</i>	Increase of the proportion of countries with legislation/regulations for IPC to: 30% by 2026 50% by 2028 >80% by 2030		

Examples of baseline situation vs GAP targets by 2030 (2)



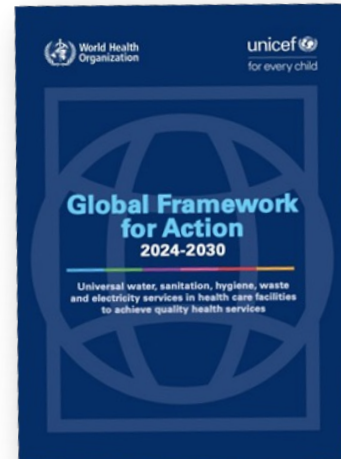
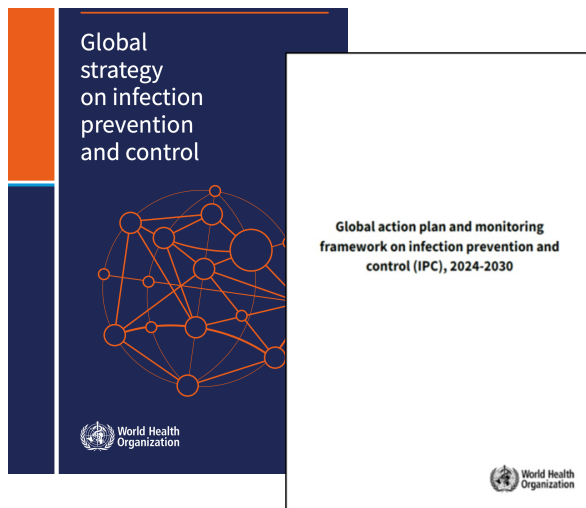
Priority area	2022–2024 key data: national level	National target by 2030	2022–2024 key data: facility level	Facility target by 2030
HAI surveillance	50% of countries (75 of 150) have a national strategic plan for HAI surveillance. 51% of countries (47/108) have a national system for HAI surveillance.	Increase of the proportion of countries with a national surveillance system for HAIs and related AMR to: 30% by 2026 50% by 2028 >80% by 2030	70.6% of health care facilities (1230 of 1742; secondary and tertiary) with a HAI surveillance system.	Increase of proportion of tertiary/secondary health care facilities having a surveillance system for HAIs and related AMR to: 30% by 2026 50% by 2028 >80% by 2030
	31% of countries (29/108) established national targets on reducing HAIs.	Increase of the proportion of countries with a national target on reducing HAIs to: 50% by 2026 75% by 2028 100% by 2030		





We need

1. Local investment case & implementation
2. Global & local leadership and advocacy
3. Financing and investment
4. Global & local monitoring



9 September 2024

Political Declaration of the High-level Meeting on Antimicrobial Resistance

We, Heads of State and Government and representatives of States and Governments, are assembled at the United Nations on 26 September 2024, in accordance with General Assembly resolution 78/269, to review progress on global, regional and national efforts to tackle antimicrobial resistance, to identify gaps and invest in sustainable solutions to strengthen and accelerate multisectoral progress at all levels, through a One Health approach, with a view to scaling up the global effort to build a healthier world based on equity and leaving no one behind, and in this regard we:

**Thank you very much for your attention
& thanks to the WHO IPC Unit team**



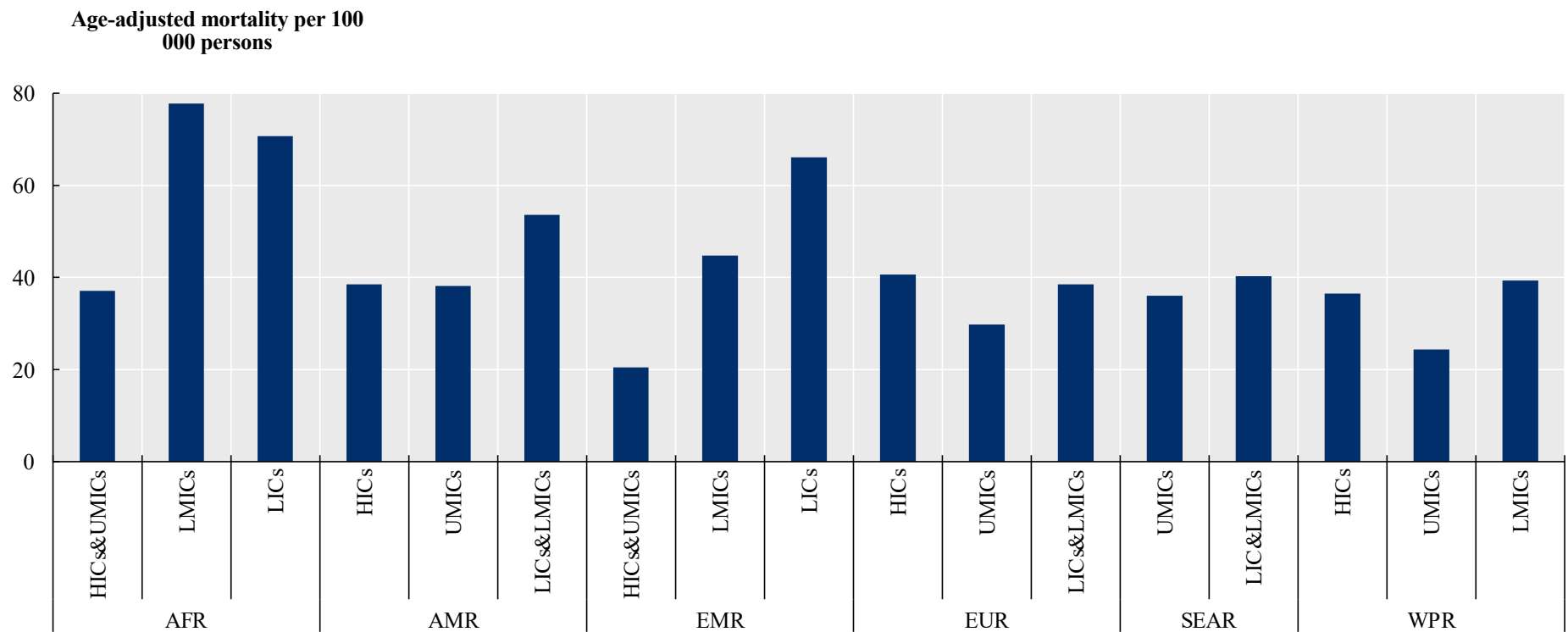
<https://www.who.int/teams/integrated-health-services/infection-prevention-control>



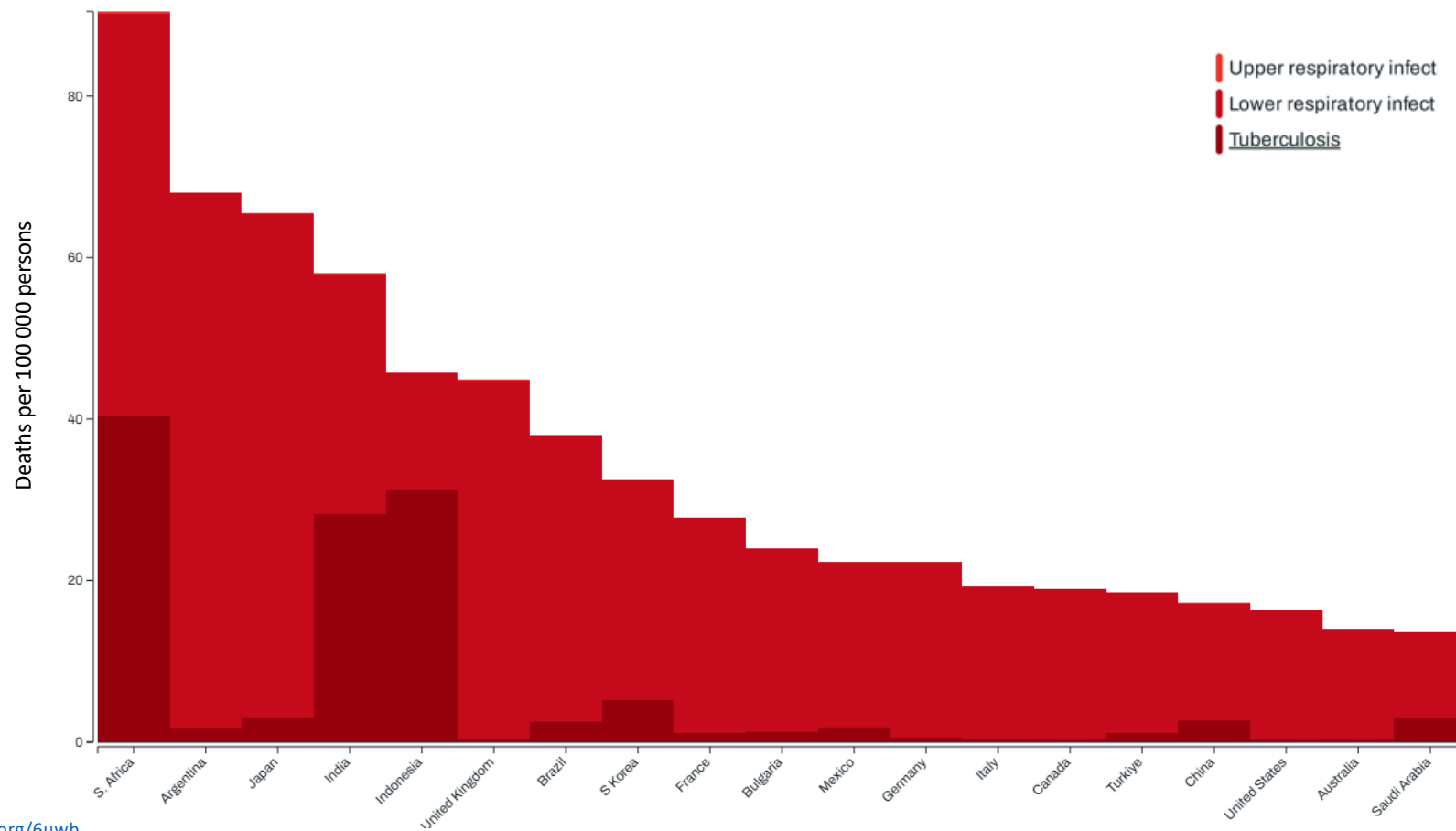
THE COST OF HAIS AND AMR AND THE ECONOMIC CASE FOR INVESTING IN IPC

Michele Cecchini
Head of Public Health
OECD

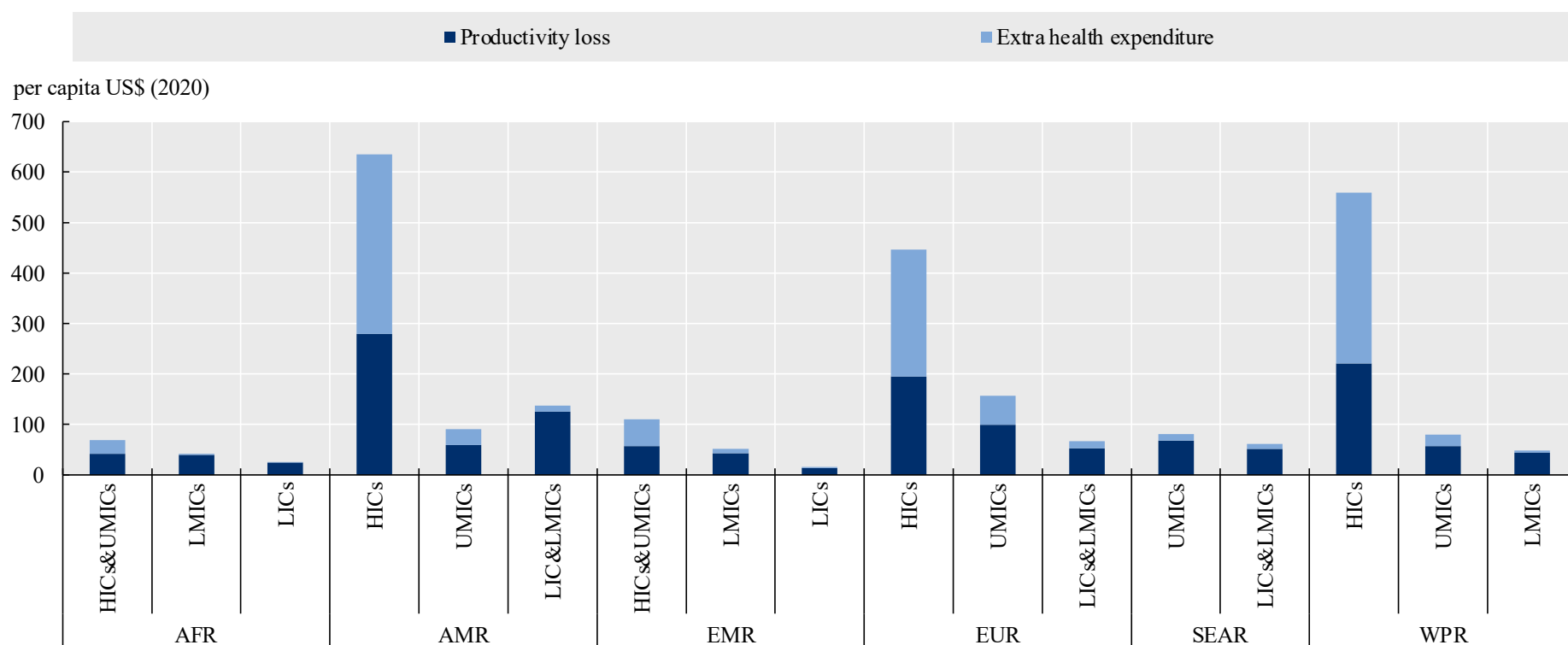
Healthcare-associated infections (HAIs) are a significant cause of burden



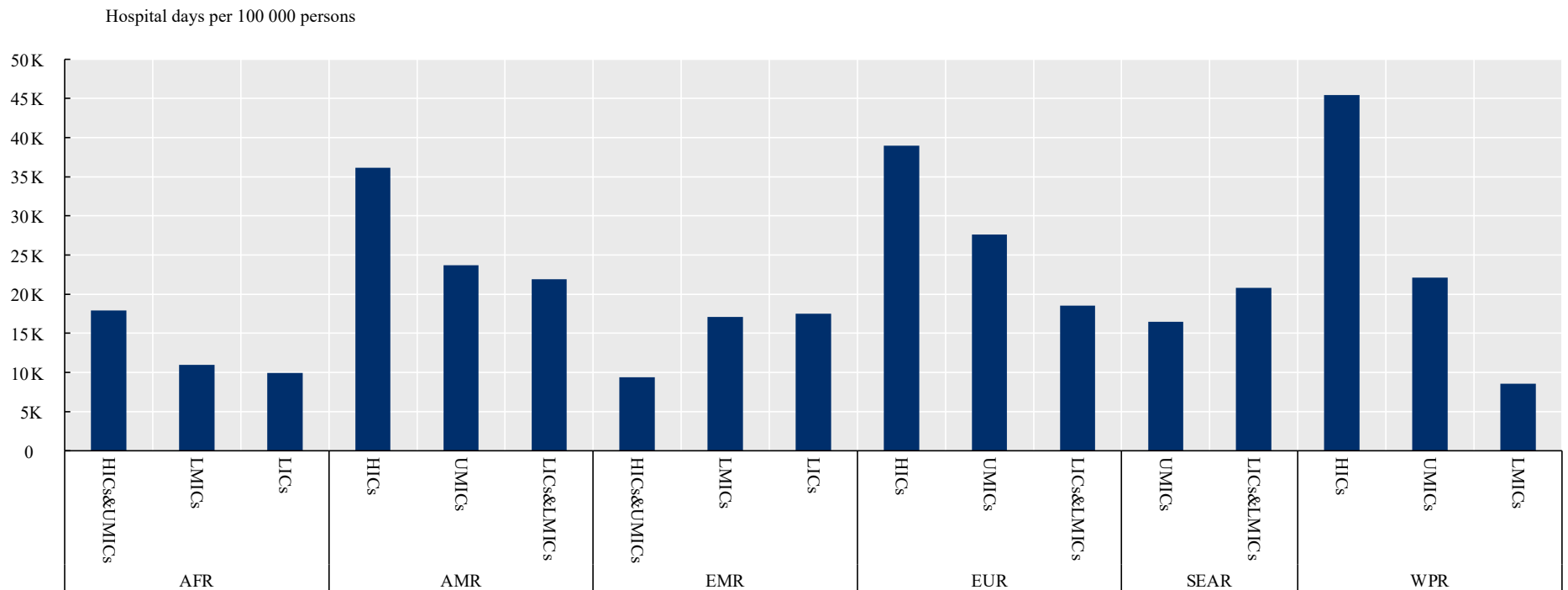
HAIs claim a number of lives comparable to those lost to tuberculosis and respiratory infections



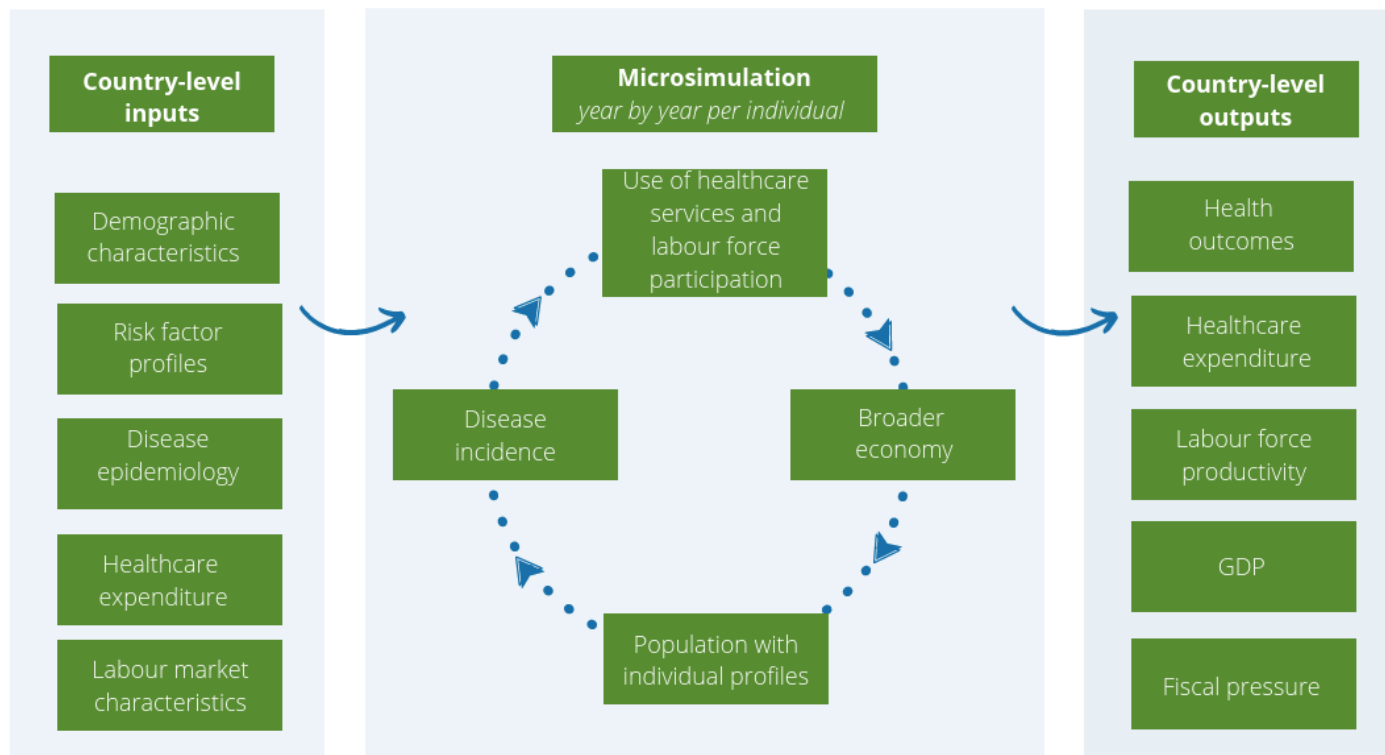
HAIs cost almost 1.2 trillion USD PPP worldwide, an amount comparable to Colombia's GDP



Globally, more than 1.8 billion extra days are estimated to be spent in hospitals for treating HAIs each year

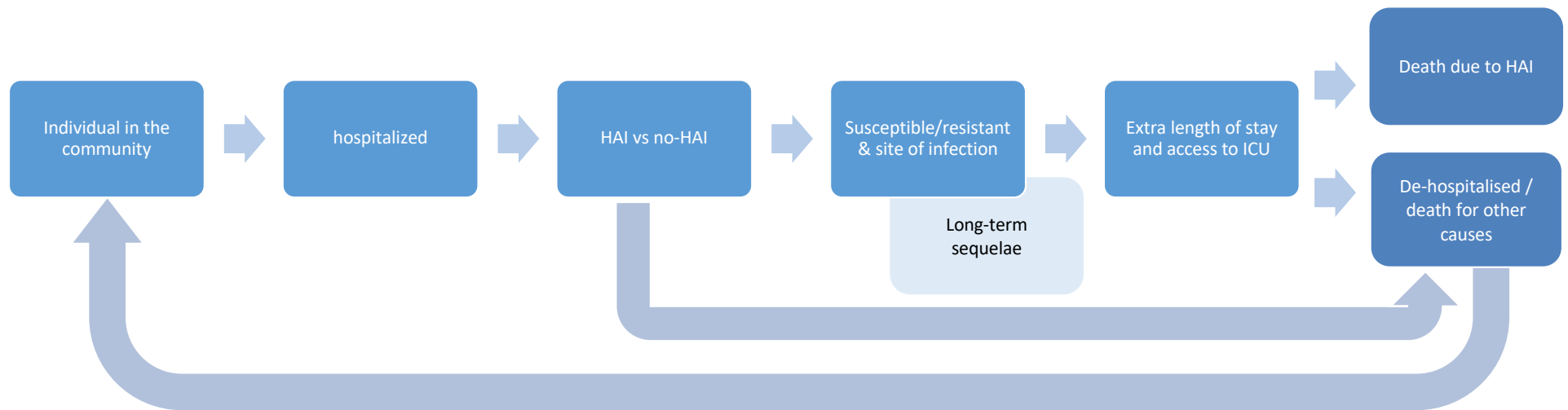


The OECD-SPHeP model is used to carry out the analyses



- Time horizon: 2023-2050
- 17 regions based on geography and income level
- 7 highly-prevalent bacteria and 21 resistance combinations

The HAI Module: simplified structure and data overview

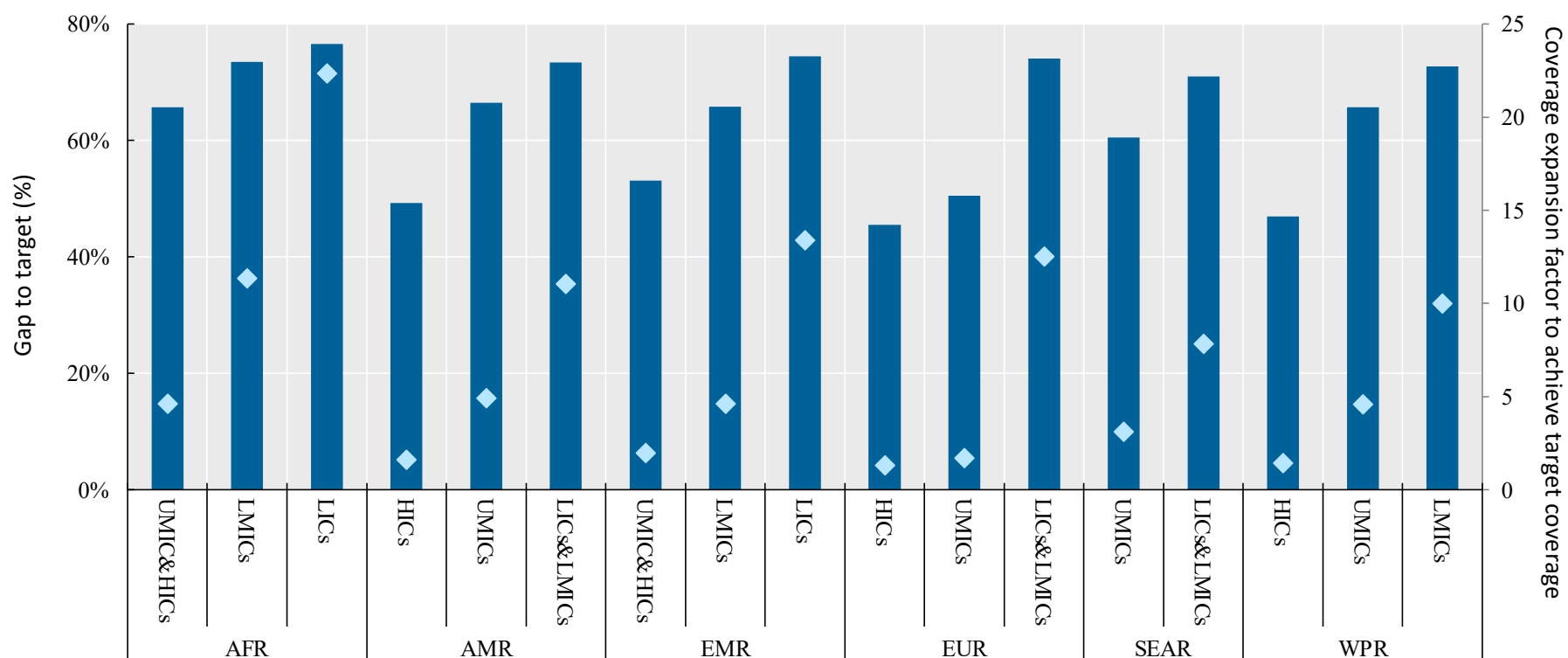


- Data to feed the model come from international statistics (e.g. hospitalization rates)
- Data on infection rates replicates outcomes from GBD 2021 AMR collaborators [https://doi.org/10.1016/S0140-6736\(24\)01867-1](https://doi.org/10.1016/S0140-6736(24)01867-1)
- Data on outcome trees for infections are from Cassini et al., [https://doi.org/10.1016/S1473-3099\(18\)30605-4](https://doi.org/10.1016/S1473-3099(18)30605-4)

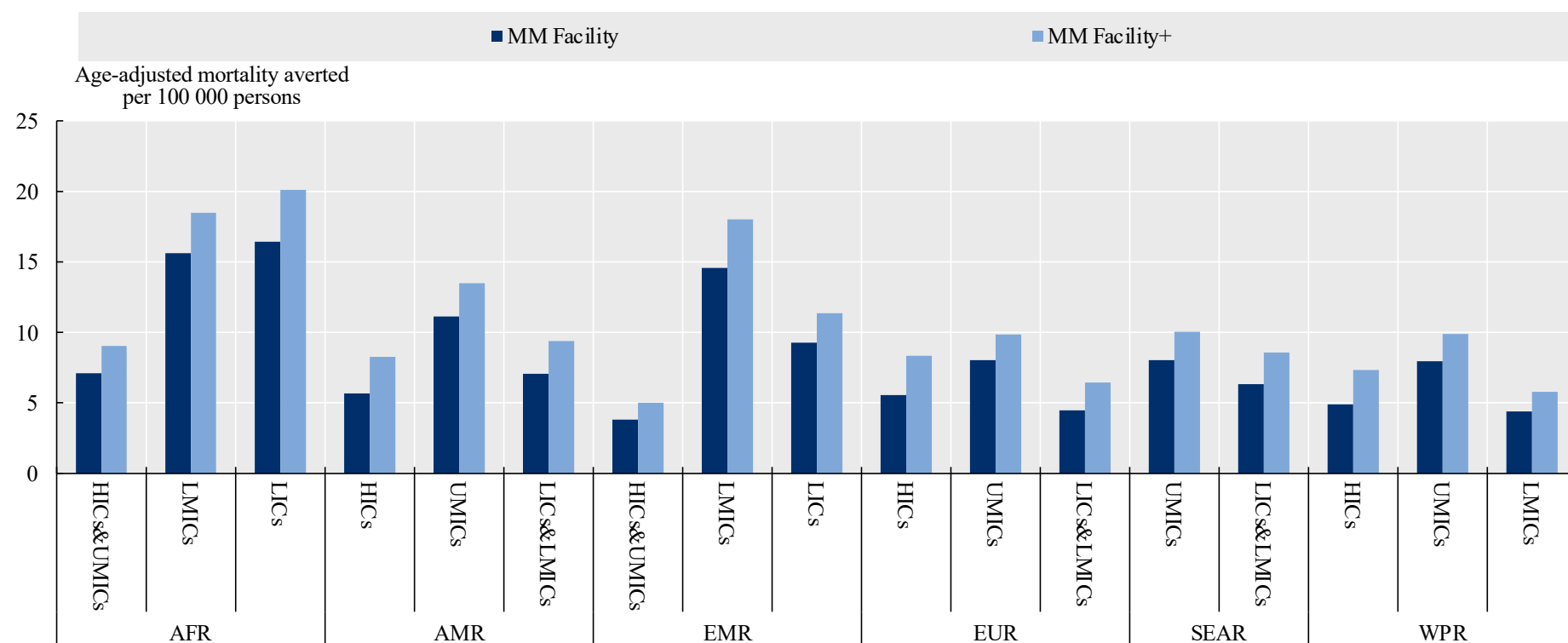
Overview of key design elements of the MM Facility and MM Facility+ interventions

	MM Facility	MM Facility+
Estimated effect size for risk of infection	MM Facility vs. business-as-usual: RR = 0.73 (95%CI 0.63-0.85)	MM Facility+ vs. business-as-usual RR = 0.69 (95%CI 0.57-0.84)
Intervention coverage at baseline	Varies by region: 3.4%-34.5%	Varies by region: 1.7%-17.3%
Target coverage	80%	80%
Time to maximum effectiveness and effectiveness over time	Scaled up from baseline to target coverage before the simulation commenced and effectiveness remains constant over the simulation period.	Scaled up from baseline to target coverage before the simulation commenced and effectiveness remains constant over the simulation period.

Significant efforts are required to increase coverage of IPC interventions from current levels to the 80% target

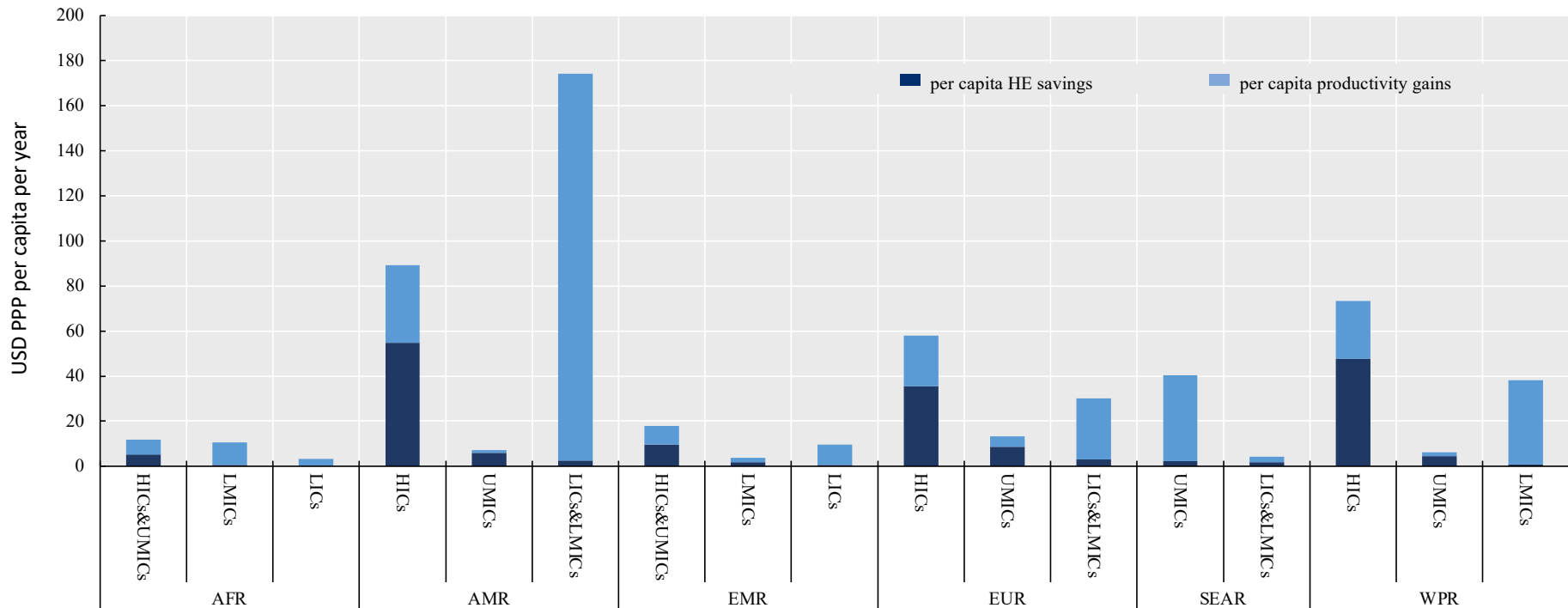


MM and MM+ can prevent $\approx 20\%$ and $\approx 25\%$ of HAI-related deaths, respectively



Total gains (healthcare & productivity) are significant: 171B and 236B USD PPP, for MM and MM+ respectively

Savings produced by the MM intervention, savings for MM+ are $\approx 31\%$ higher (21% to 50%)



IPC is a low-hanging fruit in the fight against AMR



Hospital-acquired infections, the main target of IPC, account for around three in five deaths from antibiotic-resistant infections



IPC reduces both resistant and susceptible infections and delivers results faster than other interventions, helping us to 'buy' time for investments in stewardship and R&D to deliver results

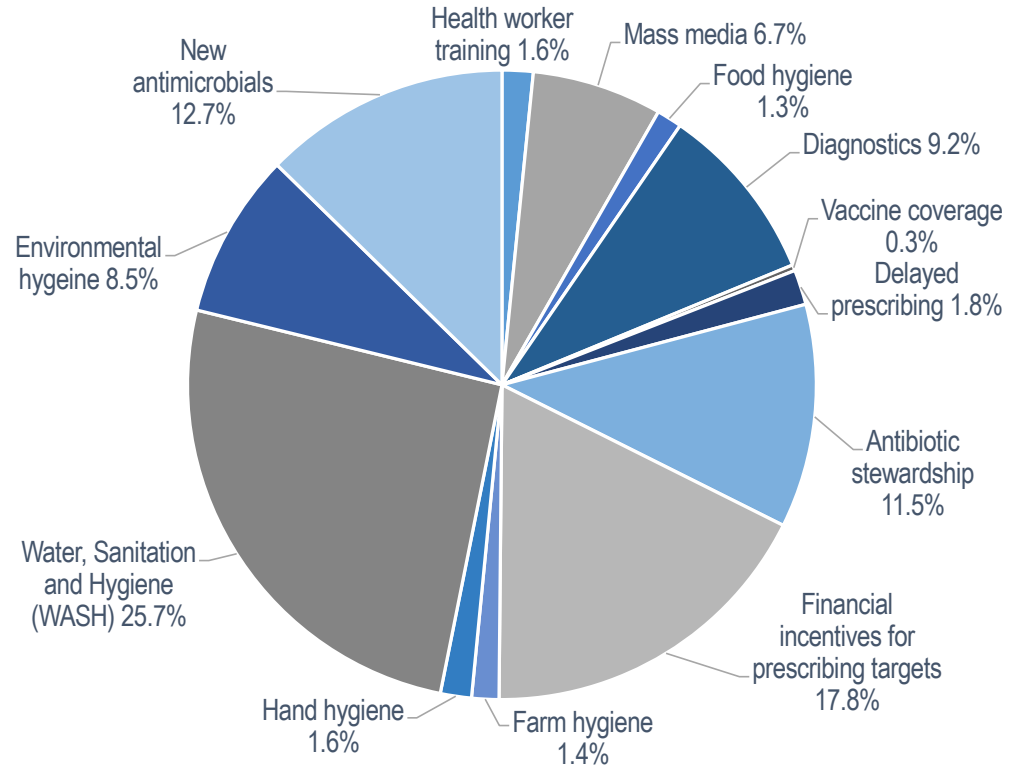


IPC helps the most vulnerable populations, such as newborns and hospitalised patients

An Investment of USD PPP 52 Billion Per Year Is Needed to Tackle AMR

- USD PPP 52 billion per year represents less than 0.5% of what we spend on health globally
- Priority areas for intervention include:
 - WaSH
 - R&D for new antibiotics
 - Infection prevention and control
 - Stewardship
- The package will pay big dividends by significantly reducing the adverse health and economic impact of AMR;
- The package generates a net return of approximately USD 10 for every USD invested

A one health policy package would fill many of the current policy gaps in tackling AMR

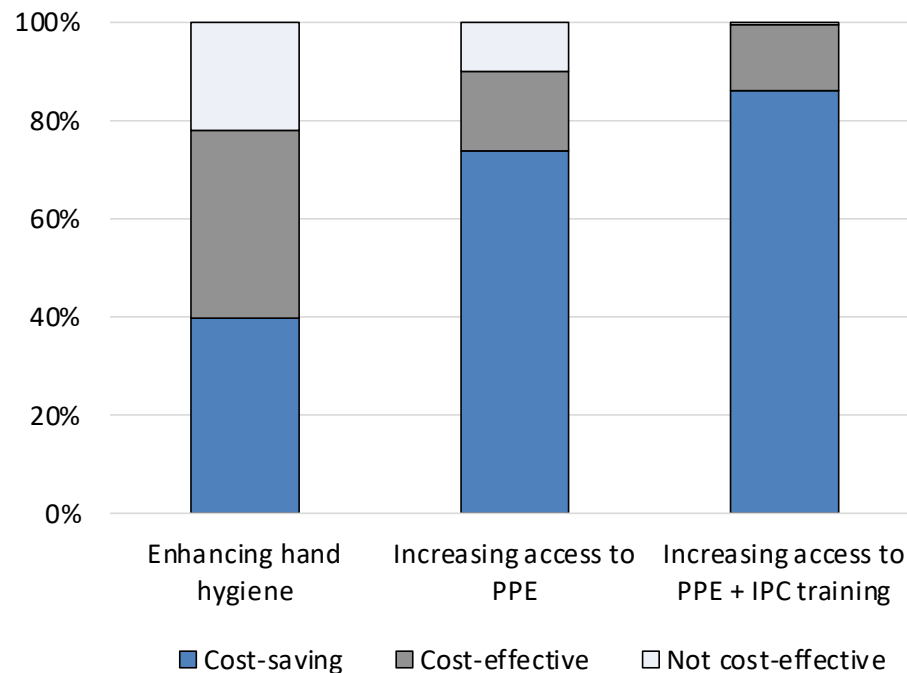


IPC interventions in healthcare settings for preparing against SARS-CoV-2 among health workers

Combining increased access to PPE and IPC education and training (PPE+)

- **IPC training and education**
(2hr-training at health facility by IPC focal point with dedicated time per 250 beds)
- **IPC guidelines and visual reminders**
- **Feedback** mechanism
- **Health workers have access to PPE** at target coverage levels

Probability of cost-effectiveness, average across the 7 regions by intervention



- PPE+ could have averted **9.8 million** new infections in health workers
- Scaling up IPC interventions is an excellent cost-effective investment for all countries, independently from their income

Policy implications

- HAIs impose a significant health and economic burden on countries across all income levels;
- Effective strategies include IPC training and education for healthcare staff, promoting multidisciplinary collaboration, fostering strong leadership and a culture of safety, all supported by robust surveillance and feedback systems;
- However, substantial efforts and investments are badly needed to ensure predictable and sustainable resource mobilization and to scale up IPC practices that work best;
- Scaling up IPC can significantly reduce the burden of HAIs by up to 25% and enhance the resilience of health systems;
- IPC can also play a critical role in our fight against AMR, improving the resilience of health services during epidemic outbreaks.

2025 Teleclass Education Topics

(most of them at least)

MARCH

- Afro-European
Teleclass** 4 ... Preventing MRSA Bacteraemia: An Achievable Outcome Even in High Endemic Hospitals
With Prof. Michael Borg, Malta
- 13 ... The Next Pandemic - Are We Prepared?
With Prof. Michael Klompas, US
- 20 ... Frugal Innovation for Low-Resource Settings
With Prof. Davide Piaggio, UK

APRIL

- 3 ... Assessment of Mould Remediation in a Healthcare Setting Following Extensive Flooding
With Manjula Meda, UK
- 10 ... Use of Artificial Intelligence for Healthcare-Associated Infection Surveillance
With Prof. Ruth Carrico, US
- Afro-European
Teleclass** 22 ... Cost Analysis of a Hand Hygiene Improvement Strategy in Long-Term Care Facilities
With Dr. Anja Haenen, Netherlands
- 24 ... What's Lurking in Your Sinks? Past Problems, Present Challenges, and Future Technologies
With Dr. Mark Garvey, UK
- Australasian
Teleclass** 30 ... The Impact of Sink Removal and Other Water-Free Interventions in Intensive Care Units on Water-Borne
Healthcare-Associated Infections
With Jia Ming Low, Singapore

MAY

- 5 ... Special Lecture for World Hand Hygiene Day
With Prof. Didier Pittet (and friends), Switzerland
- 15 ... Non-Ventilator Hospital Acquired Pneumonia
With Prof. Michael Klompas, US
- 22 ... COVID-19 Preparedness – What Went Wrong? What Are the Next Steps? The Point of View of a Biomedical Engineer

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