## COMBATTING ANTIMICROBIAL RESISTANCE

through WATER, SANITATION
AND HYGIENE and
INFECTION PREVENTION
AND CONTROL in
HEALTH CARE

THIS BRIEF HIGHLIGHTS THE BENEFITS OF COMBINED EFFORTS IN ADOPTING NOVEL AND EFFECTIVE WAYS OF COLLABORATIVE WORKING

#### **KEY MESSAGES**

- Keeping health care clean, including through adequate water, sanitation and hygiene (WASH) in health care facilities (HCFs), is one of WHO's 13 urgent global health challenges for the 2020s.
- Providing safe care will not happen without addressing the current sub-optimal investment in WASH and infection prevention and control (IPC) in HCFs, which results in over-reliance on antibiotics, driving antimicrobial resistance (AMR).
- Working together to deliver common solutions at the community and facility level will help drive advocacy, strengthen learning and support the case for investment and action.

WASH in Health Care Facilities

WASH in HCFs requires functioning, safely managed water and sanitation services, hygiene facilities, products and practices, health care waste management and environmental cleaning products and behaviors.



Infection prevention and control (IPC) is a practical, evidence-based approach which prevents patients and health workers from being harmed by avoidable infections.



Prevention of the emergence and spread of AMR in HCFs requires a comprehensive package of interventions. This includes early detection of AMR; application of WASH and IPC principles; and implementation of antimicrobial stewardship guidelines to ensure appropriate use of antibiotics, antivirals and antifungals.

# A SHOCKING PROBLEM

- In too many low and middle-income countries (LMICs), WASH is non-existent or inadequate.
- Health care associated infections (HAI) are a constant risk to care seekers, health staff and communities. AMR infections kill.
- Unhygienic environments are usually the result of chronic, sub-optimal investment, lack of and under-resourced water and sanitation services, cleaning and action.
- Weak, poorly functioning WASH and IPC programmes result in a vicious cycle of widespread infection, antibiotic use and misuse and spread of AMR.
- Antibiotics are sometimes used as a quick fix for unhygienic environments they cannot replace WASH and IPC to prevent infections.



Up to 90% of health workers do not adhere to recommended hand hygiene practices due to many factors including lack of an enabling environment.



Up to 1 million mothers and newborns die from preventable infections linked with unclean births.



In Africa, up to 20% of women get a wound infection after a caesarean section.



Hospital-born babies in low-income settings are at a higher risk of being affected by neonatal sepsis, with infection rates 3 to 20 times higher than in high-income settings.



On average 15% of patients in LMICs will acquire at least one infection in acute care hospitals. Globally, drug resistant infections kill more people than susceptible

infections.



Number of HCFs globally with no hand hygiene materials at the point of care



Number of people using HCFs with no water service



- 1/3" of sepsis-related neonatal deaths worldwide, yearly, are attributable to resistant pathogens
- 90% of women giving birth vaginally receive antibiotics in some countries
- 25% anticipated increase in health expenditure in low-income countries due to AMR by 2050



Effective WASH and IPC will reduce the spread of all types of infections – including resistant ones.

WASH and IPC also reduce overall antibiotic demand, use, misuse and waste, and reduce the opportunity for resistant strains to emerge.

Fewer resistant infections saves money which can be invested, serving the most vulnerable and improving overall community health.

Better WASH and IPC and less AMR allows for higher quality, safe care.



#### REDUCE RESISTANT MICROBES

Antimicrobial stewardship, targeted AMR services, less emergence and spread Enable IPC, stop deadly infections Hand hygiene, general hygiene

Hand hygiene, general hygiene & environmental cleaning/decontamination services

# WASH AND IPC STOP AMR, SAVE LIVES AND MONEY

- ✓ Investing in hygiene is a best buy for the prevention of AMR.
- WASH and IPC action improves the quality of HCFs, including hand hygiene and overall hospital hygiene.
- Hygiene measures in health care decrease AMR and the associated disease burden, protecting health workers, patients and all HCF users.

1 year

Time it would take for investment in WASH to pay for itself & produce savings for every dollar invested thereafter.

Up to 60%

Reduction in annual AMR mortality by upscaling stewardship programmes, improved hand hygiene and environmental hygiene policies to national levels.

## SELLING THE BENEFITS OF COMBINED EFFORTS

#### **Advocacy**

Amplify consistent, compelling messages across the WASH, IPC and AMR communities. Look for, and act on, opportunities to influence the strategic agenda, to raise the profile of the issue and to address it. Make sure joint plans are delivered.

#### **Collaboration and leadership**

Engage leaders and communities to invest and act on WASH and IPC in HCFs. Align with AMR plans, as well as other health plans and prevention activities, such as quality universal health coverage, patient safety and maternal, newborn and child health. Hold each other to account.

#### Learning

Research and share what works, including innovative technologies and approaches. Engage leaders in putting learning into action and share key messages with collaborators.

#### Global



Address the threat of AMR alongside the need for WASH and IPC in HCFs in campaigns to reduce unnecessary antibiotic use and hospital admissions.

Embed WASH and IPC monitoring, investments and actions in all AMR global plans, accountability frameworks, policies, and financing mechanisms.

Use champions who share compelling, joined up messages to engage global leaders. In turn, leaders advocate for increased investment, finance mechanisms and action frameworks and policies.

Jointly, track commitments and report on combined efforts and progress on implementing the global action plan on AMR, the 2019 World Health Assembly WASH in HCFs Resolution and other initiatives such the Hand Hygiene For All campaign.

#### **National**



Include WASH and IPC experts and focal points within all relevant health programmes e.g. AMR multisectoral coordination groups.

Support programmatic champions to collaborate by using local/national data, tools and compelling messages.

Reflect WASH and IPC in AMR national action plans, and comprehensively support and invest in key WASH and IPC activities (including conducting national assessments and analyses, setting targets and standards, and empowering the health workforce).<sup>1</sup>

Jointly develop action plans and track implementation progress on complementary WASH, AMR and IPC guidelines and interventions.

Share plans and learning on costing and investing, surveillance & monitoring.

### **Facility**



Support joint working, training and mentoring between focal points/specialists and facility-level leadership to support and sustain immediate and long-term improvements on, for example, routine hand hygiene and cleaning practices, safe management of water and sanitation supplies and health care waste and antibiotic stewardship.

Share learning and encourage healthy competition on implementation of WASH & IPC standards² as well as antibiotic stewardship programmes among peer facilities.

Monitor efforts to improve and sustain, for example, hand and environmental hygiene infrastructure and practices, as well as safe waste management and reducing the presence of antibiotics in wastewater.

Generate and disseminate the evidence base for effective programmes and approaches for AMR prevention, IPC and WASH in HCFs.

- For details on key national WASH in HCFs and IPC actions refer to WHO/UNICEF "Eight practical steps" and WHO IPC "Core Component
- Tools and guidance for making improvements include Water and Sanitation for Health Facilities Improvement Tool (WASH FIT), the IPC Core Components /IPC Minimum Requirements

## More information on WHO, UNICEF & WaterAid's work on WASH, IPC & AMR

#### **WHO AMR**

https://www.who.int/health-topics/antimicrobial-resistance

#### WHO IPO

https://www.who.int/infection-prevention/en/

WHO & UNICEF WASH in HCF www.washinhcf.org

WHO WASH

https://www.who.int/water\_sanitation\_health/en/

#### UNICE

https://www.unicef.org/wash/

#### WaterAid

https://washmatters.wateraid.org/

Joint Monitoring Programme www.washdata.org

#### **Further reading**

**AMR Global Action plan:** states the need to reduce the incidence of infection through effective sanitation, hygiene and infection prevention measures (AMR GAP objective 3) and calls on countries to develop national action plans (NAP).

**WHO Core Component Guidelines and minimum requirements:** state that patient care activities should be undertaken in a clean and hygienic environment, supported by the right infrastructure and services, which facilitate practices related to the prevention and control of HAI and AMR.

WHO UNICEF WASH: Practical steps to achieve universal access to quality care: describes how to improve WASH and strengthen IPC and AMR prevention.

Hand Hygiene for All initiative: The initiative aims to implement WHO's global recommendations on hand hygiene to prevent and control the COVID-19 pandemic and to ensure lasting infrastructure and behavior.

**Technical brief on WASH and wastewater management to prevent infections and reduce the spread of AMR:** provides a summary of evidence and rationale for WASH and wastewater actions within AMR NAPs and sector specific policy to combat AMR.





