

Prevention first

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Why clean water and hygiene are the best medicine against the spread of drug-resistant infections

Executive summary



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Antimicrobial resistance (AMR) occurs when germs, such as bacteria or fungi, are no longer affected by drugs designed to kill them. Resistance to antibiotics is a large part of this problem, which is **already a major cause of death worldwide, contributing to around 5 million lost lives a year**. It has been described as a significant threat to humanity, one that most threatens the lives of young children under five, and those living in low- and middle-income countries (LMICs) – particularly in sub-Saharan Africa.

The COVID-19 pandemic has exposed the devastating economic and societal consequences of infectious disease spreading unchecked – risks that are expected to increase significantly over the course of the century because of climate change. A 2016 World Bank report shows that a high-case scenario of AMR could push up to 28 million people, mostly in developing countries, into poverty by 2050. Global increases in healthcare costs may range from \$300 billion to more than \$1 trillion per year by 2050. And **the wider economic costs could be as high as \$100 trillion by 2050**.

Infection prevention and control (IPC) is of critical importance to containing and controlling antibiotic resistance. Yet in low-income countries, **a lack of water, sanitation and hygiene (WASH) services in healthcare facilities (HCFs) is creating environments where harmful bacteria can thrive**.

A lack of WASH in HCFs not only drives the spread of resistant infections by exposing patients and health workers but also by encouraging the overuse of antibiotics to prevent and treat infections.

Based on the relative economic power of the most credible grouping of donor countries, WaterAid research and analysis shows that the G7 countries have by far the largest share of annual funding required at \$470 million, or 78% of total funding needed. At \$34.5 million annually, the UK's fair share is 6% of the total annual funding needed – which is just 0.3% of its overseas aid budget.

Polling by YouGov for WaterAid indicates that:¹

53% of the British public list WASH as one of their top three most important ways of spending UK official development assistance.

“Improving WASH in healthcare facilities is central. We catch infections either from the environment we are in or from our own bodies. We need to reduce that risk.” – Dame Sally Davies, UK Special Envoy on AMR

1. All figures, unless otherwise stated, are from YouGov Plc. Total sample size was 1,781 adults. Fieldwork was undertaken between 11th – 12th August 2022. The survey was carried out online. The figures have been weighted and are representative of all GB adults (aged 18+).

Half of the world's HCFs do not have basic hand hygiene services – rising to two thirds across the 46 least developed countries (LDCs). In 2021, 3.85 billion people used HCFs without basic hand hygiene services, 1.7 billion used facilities that lack basic water services, and 780 million used facilities with no sanitation services.

This means that doctors and nurses are unable to wash their hands before and after touching patients, new mothers are unable to clean themselves or their babies, and health workers and patients alike have no safe and hygienic toilet. This is causing repeated disease outbreaks and the need to treat them with antibiotics, contributing to the increase in antibiotic resistance around the world.

The provision of WASH in HCFs is therefore crucial to reduce the spread of many life-threatening infectious agents, from multidrug-resistant bacteria to viral pathogens like Ebola and COVID-19. It stops the spread of antibiotic resistance by reducing infections acquired in HCFs and reducing the need to use antibiotics to prevent or treat them. According to the WHO, **70% of healthcare-acquired infections (HCAIs) could be prevented through good hand hygiene and other cost-effective healthcare practices facilitated by WASH.**

Targeted investment in WASH in HCFs in the world's poorest countries offers an immediate, affordable and achievable high-impact option for tackling antibiotic resistance. The estimated cost of achieving universal access to WASH in existing HCFs in the world's 46 least developed countries is around \$9.6 billion – an average of just \$0.65 per person per year. To make this a reality, catalytic funding of \$601 million annually up to 2030 would meet the external financing needs and complement efforts by LDCs to mobilise resources domestically – a modest fraction of what is currently being spent on aid for global health and WASH aid. **These investments would not only yield benefits of up to 16 times their value, but also start paying for themselves within a year and produce savings of around \$1.50 for every dollar invested thereafter, through a range of immediate and long-term cost savings.**

Stepping up investment in WASH in healthcare facilities has the potential to help save lives from day one, and to continue delivering returns for decades to come.

In addition to the economic arguments, there is a moral imperative to ensure patients and health workers have access to universal, sustainable and safe services. Maternity services are severely impacted by the lack of adequate and safe WASH. In fact, women also account for the majority of health and care workers globally, so are disproportionately affected by the lack of WASH in HCFs in LDCs.

That said, there is a very clear imperative for the UK to act on antibiotic resistance and AMR to protect our own health and economy. **HCAIs already cost the NHS at least £2.1 billion a year – a cost that will go up if these infections become increasingly resistant to antibiotics.**

Yet, while the UK is recognised as a world leader in its approach to tackling antibiotic resistance domestically – with innovative approaches to research and the use of antibiotics – most resistant infections treated by the NHS originated elsewhere in the world. Gains made by UK efforts

The first step in reducing the need for antibiotics is to get the basics of prevention right. Yet, **half of the world's healthcare facilities do not have basic hand hygiene services** – rising to two thirds across the 46 least developed countries.

to tackle antibiotic resistance will be undermined if it does not do more on this internationally.

The Government has recognised the necessity of improved WASH services globally, particularly in HCFs, to slow the spread of antibiotic resistance. However, **the steep decline in UK bilateral aid for WASH raises concerns about the UK's commitment to the sector and to the fight against antibiotic resistance.** This retreat from our role at the forefront of the WASH sector puts our national health security at risk.

The UK should ensure that it is working across Government to tackle antibiotic resistance by: leading international advocacy; providing its fair share of additional financing in support of countries' own plans on WASH in HCFs (instead of roadmaps); advocating for additional financing from others and ensuring all its programmes recognise and tackle the problem – this includes advocating for WASH in HCFs to be a central component of multilateral initiatives such as the Pandemic Fund and Global Financing Facility for Women, Children and Adolescents (GFF); ensuring that the UK prioritises WASH in HCFs in its bilateral programmes and investments; championing action on WASH in HCFs at international fora, such as the G7 and G20.

With UK expertise and leadership to galvanise multilateral finance and multi-sectoral engagement, we can improve health outcomes, tackle the spread of antibiotic resistance, and change millions of lives at home and abroad.

"We can't win the battle against antibiotic resistance without acting on the water, sanitation and hygiene crisis in healthcare facilities now." – Julian Sturdy MP and Fleur Anderson MP, chairs of the All-Party Groups on Antibiotics and Water, Sanitation and Hygiene.

As COVID-19 has shown, infectious diseases do not respect borders. Most resistant infections treated by the NHS originated elsewhere in the world.

The UK is a world leader when it comes to antibiotic resistance. It is uniquely placed to lead global efforts to combat antibiotic resistance and to catalyse progress in achieving universal access to WASH in healthcare facilities.

The UK Government should:

- **Take the lead on international advocacy to improve WASH in HCFs to help prevent antibiotic resistance.** Make sure it is on the agenda at the G7 meetings in May 2023 and other critical global meetings.
- **Provide its fair share of funding for WASH in HCFs as part of the global antibiotic resistance prevention agenda and advocate for additional financing from others** to catalyse progress on WASH in HCFs in the world's poorest countries. The UK's annual fair share of the external financing gap for WASH in HCFs is \$34.5 million. If the UK were to ringfence just 0.3% of its annual overseas aid budget for this then we would meet our fair share of the cost.
- **Ensure all FCDO health programmes support progress on WASH in HCFs as a core component** including leveraging UK contributions to multilateral development financing.