Infection prevention: laying an essential foundation for quality universal health coverage

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Countries from across the world gathered in Astana, Kazakhstan, in October 2018, to reaffirm and expand their commitment to prioritise, promote, and protect the health and wellbeing of their populations. This was the opportunity for a new generation of health policy makers and leaders to honour the ideals of the 1978 Alma-Ata Declaration[1] and to reinterpret these in the current era. Over the past 40 years, many countries have designed health systems that improve access to quality essential services, social stability, and health security, as well as having economic benefits.[2] The health-related aspects of the UN Sustainable Development Goals have a strong focus on universal health coverage (UHC), with quality of health services increasingly emphasised as essential for success.[3]

When Florence Nightingale, considered the mother of infection prevention and control (IPC), echoed the Hippocratic ideal to "first, do no harm" in the 1860s, she recognised that the first steps to providing organised beneficial health care were inherently risky in nature. Although Florence Nightingale was a late adopter of the germ theory of disease, she was among the first to recognise that a caregiver could be at the origin of patient harm, particularly infection. She was an early pioneer of the practical application of quality improvement at the bedside. Health-care-associated infection remains an ever-present companion, irrespective of where and when it is delivered.

Health-care-associated infections are a consequence of poor-quality care and a deadly cause of harm affecting hundreds of millions of patients worldwide every year.[4] They generate twice the total burden of disability-adjusted life-years than all other 32 communicable diseases reported in Europe.[5] Antibiotic-resistant microorganisms are responsible for most infections and 75% of disability-adjusted life-years attributable to antimicrobial resistance (AMR) in Europe are due to health-care-associated infections.[6] This places a clear duty on policymakers, health leaders, facility managers, and practitioners who design, build, and operate health systems to ensure that they prevent the spread of infections. Without this essential foundation for quality health services, UHC risks being an empty promise.[7]

IPC is an evidence-based approach to halt the spread of infection and AMR.[8] It embodies all three core domains of quality care (ie, care that is safe, effective, and people-centred), and strongly supports the attainment of other key global health priorities that will eventually contribute to high-quality UHC (figure). Strong IPC capacity and programmes ensure adequate preparedness and response to protect people from outbreaks. Their reinforcement is an essential pillar for recovery and health system strengthening after the shock of an epidemic. IPC is also complementary to

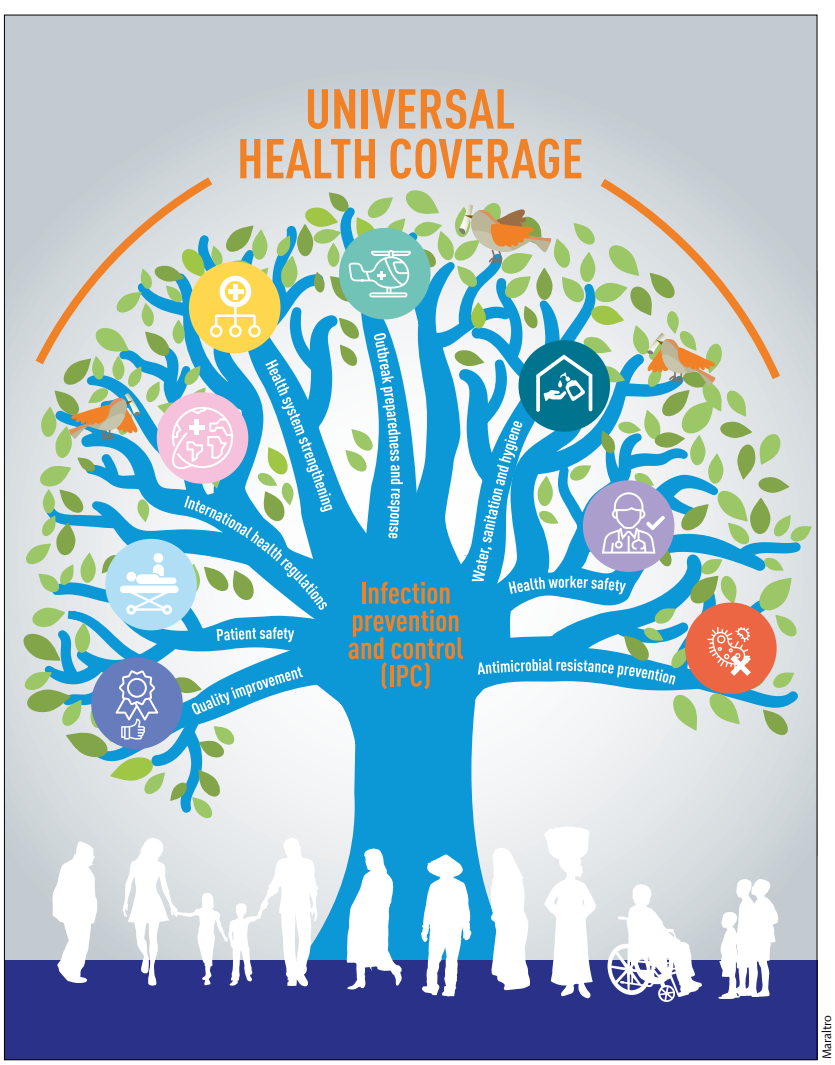

Figure: **Linkages between infection prevention and control and other health priorities to achieve quality universal health coverage**

and enhances water, sanitation, and hygiene (WASH) interventions. WASH monitors infrastructure indicators, whereas IPC provides evidence of an effect on health workers' behaviour and patient outcomes through improved infrastructures.

Synergies and interconnections are particularly effective when IPC supports strategies aimed at reducing AMR. Notably, the increasing availability of IPC equipment and infrastructure (eg, alcohol-based handrubs) at the point of care and isolation beds are associated with a proportionate reduction of the most common AMR patterns that are associated with health care.[8] Combining IPC interventions with antimicrobial stewardship programmes is the most effective approach.[8,9] Among these, hand hygiene is the most crucial, whether implemented as a stand-alone intervention or integrated into multifaceted interventions.[9,10] IPC interventions often provide a starting point for developing a culture of quality improvement in health facilities.

Despite this compelling evidence, only 58% of countries report having a national IPC programme or plan and related guidelines. Even more alarmingly, only 15% have a system to assess their compliance and effectiveness.[11] These gaps are more striking in low-income countries where surveillance indicators for infections associated with health care are present in only 5% of countries and the monitoring of IPC in only 30% (WHO, unpublished data).

In a global call to action in 2017, leaders of the Global IPC Network identified global and country-specific IPC priorities to be achieved by 2022.[12] These priorities require serious reflection and forceful actions. World Health Assembly resolutions can provide a strong basis for policy and regulation development and enforcement. Powerful resolutions on AMR and sepsis prevention already exist and new ones on patient safety and WASH are in the pipeline for full endorsement by the World Health Assembly in 2019. IPC is a key element. None of these resolutions can be implemented without strengthening the size and competencies of health work forces, which are also essential to achieve UHC, because inadequate staffing substantially increases the risk of infection and spread of AMR.[7]

As an immediate tangible action, WHO calls upon everyone this year to be inspired by the global movement to achieve quality UHC and has crafted its global hand hygiene campaign message to achieve this wider goal: "clean care for all—it's in your hands!" The call to action has also been expanded and adapted to facilitate ownership and adoption by specific audiences, including highlighting clean care as a human right for all patients. Additionally, WHO strongly encourages ministries of health and health-care facilities to bridge the gap in the scarcity of IPC data by participating in a global survey on the level of progress of IPC and hand hygiene programmes. Clean and safe care should be universally available to every person worldwide. It can be achieved through improved IPC practices and monitoring everywhere, driving the foundation for quality care in the UHC era.

For the **global hand hygiene campaign** see https://www.who.int/infection-prevention/campaigns/clean-hands/5may2019/en/

For the **WHO IPC global survey** see https://www.who.int/infection-prevention/campaigns/ipc-global-survey-2019/en/

For the **World Health Assembly** see https://www.who.int/mediacentre/events/governance/wha/en/

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