

Assessing infection prevention and control during COVID-19 in 22 humanitarian contexts

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Infection Prevention and Control (IPC) is important for building a resilient health system – and critical during a pandemic. A multi-country assessment undertaken in late 2020 has highlighted significant shortcomings which need to be addressed.

During the Ebola outbreaks in West Africa in 2014–15 and in the Democratic Republic of Congo in 2019, poor Infection Prevention and Control (IPC) infrastructure and practices led to high numbers of health-care worker infections, and reduced people's use of health services due to fear of transmission. Based on their experience with Ebola, the International Rescue Committee (IRC) developed a minimum package of IPC standards for COVID-19, aiming to enable rapid IPC improvements in health facilities serving populations affected by conflict and displacement. The core components of this minimum package for IPC focus on staff and accountability, skills and practice, and supplies and infrastructure.

Baseline assessment: highlighting the challenges to be addressed

The minimum package was used to develop an assessment tool to provide a baseline on the current state of IPC in IRC-supported health facilities across five regions. It did this by collecting information on the following categories: 1) triage, screening and isolation; 2) hygiene, environmental cleaning, disinfection and personal protective equipment (PPE); 3) water supply; 4) sanitation and health-care waste; and 5) management. The tool was adapted from the WHO/UNICEF WASH FIT tool to capture information at health facility level and uses a traffic light system to flag issues for action.¹ Each facility received a score on each category and an overall IPC score.

The IPC baseline assessment was completed in 1,106 facilities across 22 countries from August to December 2020. Each facility received a score in each category and an overall IPC score. Facilities that met 80% or more of the standards were categorised

as 'meeting target' and labelled green; facilities that met 65–79% of standards were categorised as 'partially meeting target' and labelled amber; and facilities with a score of 64% or less were categorised as 'not meeting target' and labelled red. Of the 1,106 facilities assessed, 14% met overall IPC targets, 17% partially met the targets and 70% did not meet the targets. There was some regional variation in results but none of the regions had more than half the facilities meet the overall IPC target and all regions averaged below the 80% threshold for overall IPC score.

IRC health programmes have different implementation approaches depending on the context, with five approaches assessed in this case: facilities directly managed by IRC; facilities directly managed by the Ministry of Health, without IRC support; facilities directly managed by the Ministry of Health, with ongoing IRC support; partner-managed facilities, without IRC support; and partner-managed facilities, with ongoing IRC support.

Facilities managed directly by IRC performed better on average than facilities managed by the MOH and other partners, with 35% of assessed facilities meeting the target. Partner-managed facilities supported by IRC performed the next highest, while partner-managed facilities without IRC support had the lowest results. Based on facility type, hospitals scored best (62% met standards) and temporary/mobile clinics scored worse (3% met standards).

Facilities met standards for **cleaning and PPE** (71%) more than any other category, followed by water (64% met target), then sanitation (47%), management (43%) and screening (29%). While there were initial challenges to secure PPE, there was a global effort to ensure access to PPE for

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all IRC-managed and -supported health facilities in the first six months of the pandemic, and it seems this effort had positive results.

Sixty-four percent of health facilities met the **water standard**. While this category was the second highest-ranking standard in the baseline assessment, it is also the most fundamental to achieving overall IPC standards and therefore the score is worrying. Within this category, the least practised activity was chlorination of water; this is problematic as non-chlorinated water may be highly contaminated with various pathogens which can easily invalidate cleaning and disinfection activities as well as lead to transmission of water-borne diseases.

Fewer than 50% of facilities met the **sanitation standard**, with many not having gender- or staff-segregated toilets. Most of the facilities did have functional waste collection systems but more concerning was that fewer facilities had the correct mechanisms for final disposal of waste, thereby posing a risk not only to health facility staff and patients but also to neighbouring communities.

Fewer than 50% of facilities met the **management standard**, with many facilities not having IPC committees who hold regular meetings with clear terms of reference in place. Many of the components of this category require little or no financial resources and so are considered to be more easily achievable ways to improve IPC.

Screening and triage performed the worst, with an average of only three out of seven facilities meeting this standard. Most facilities did not have screening or triage at the entrance to the facility, and if they did it was often not functioning all the time or did not have the necessary materials to do it correctly. Challenges to meet this standard included lack of staffing.



An IRC staff member provides hygiene training in the context of an Ebola outbreak in Sierra Leone.

Why are these standards hard to achieve?

The IPC baseline results highlight not only the areas of strength but also – more importantly – where improvements are needed if health facilities are to achieve minimum standards for IPC. However, the baseline results do not highlight **why** minimum IPC standards are so hard to achieve within humanitarian settings. Staff from the 22 countries provided input about the main challenges they experience to achieve IPC standards:

Safe water availability: In many humanitarian contexts, there is no easy access to safe water sources, or water is generally scarce. In locations with sufficient water, the water is often not treated with chlorine. If there is no or insufficient water, or the water is not properly treated, it is impossible to practise IPC adequately.

Supply chain: In more than half the countries, health-care staff reported one or more challenges in ensuring consistent supply of priority PPE items. The challenges included lack of local availability of suitable materials, international markets not being able to provide supplies due to limited supply and high demand, and delays in shipments of supplies due to travel or flight restrictions. These challenges were

compounded by the regular, non-pandemic challenges relating to supply chains.

Health facility infrastructure: Many health facilities are not designed to enable standard IPC precautions, let alone precautions against COVID-19 transmission. Many facilities are small, and are unable to accommodate social distancing, separate entrances and exits, isolation rooms, and dedicated screening and triage areas. While funding was a barrier to making many of the required changes, limited space and local restrictions also made it very difficult to make improvements.

Staffing: Many countries reported insufficient number of health-care workers and low IPC capacity – a not uncommon challenge in such settings but one that was exacerbated during COVID-19 by health-care worker sickness and fear. Among those staff who remained working in the health facilities, it was reported that some lacked motivation to practise IPC, perceiving it as adding to their normal workload and not part of their job description. Adherence to COVID-19 transmission-based precautions for health-care workers, such as mask use, was reported as extremely low, leading to a perception that COVID-19 was not being taken seriously.

Funding: Insufficient funding contributed towards poor IPC practices. While IRC health teams received small allocations of funding to support IPC improvements during the pandemic, there were very few donors who funded large IPC projects, as they have in other infectious disease outbreaks. Many donors were also quite slow to allow for budget realignments during the pandemic in order to improve IPC standards within health facilities. The increased costs of some items during the pandemic – such as PPE – put more pressure on existing small budgets.

Improving IPC: a priority

This baseline assessment has exposed the key vulnerabilities of health facilities during the pandemic and the importance of focusing on IPC improvements during the COVID-19 pandemic. In the long term, improvements

in this area contribute to a better overall quality of health service delivery and patient outcomes. Protecting health workers and patients is central to building a resilient health system. As such, strengthened IPC systems and practices are fundamental to the ability of health systems both to respond to emergencies, and to deliver safe routine health care and manage future outbreaks.

It is important to note that IRC's managed facilities perform better overall than those managed by MOH and other partners. This difference is attributed to IRC being able to make changes more easily in facilities that it directly manages than in those facilities that it only supports. This should indicate that it is indeed possible to have good IPC measures in place even in the most difficult of contexts.

The World Health Assembly (WHA) passed four resolutions in 2019 where member states agreed to improve WASH services in health facilities.² Member states also urged countries to strengthen IPC, including in the WASH sector, in order to ensure the highest standards of universal health care. Despite these global commitments, IPC is still under prioritised.

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