Strengthening infection prevention and control and quality in health care for resilient health services
Strengthening infection prevention and control and quality in health care for resilient health services

Tackling Deadly Diseases in Africa Programme (TDDAP) report of the WHO regional and country capacity development workshop

Kampala, Uganda
23–25 October 2018
Contents

iv Foreword
vi Acknowledgements
vii Abbreviations
viii Executive summary
1 Background
3 Summary of proceedings
14 Country perspectives of quality and infection prevention and control in health services
19 Breakout sessions
25 Summary of workshop findings compared with workshop objectives
27 Next steps
29 References
31 Annex 1. List of participants
35 Annex 2. Collated feedback on priorities from the group session
37 Annex 3. Country snapshots
51 Annex 4. Programme of work
55 Annex 5. Linkages between quality and infection prevention and control
58 Annex 6. Media coverage
Foreword

Like any other parts of the world, countries in Africa are vulnerable to infectious diseases and other public health hazards. Strong resilient health systems – equipped with and prepared for an emergency – constitute a critical line of defence in reducing the risk that small events will turn into emergencies. Paradoxically, for too long, we have seen emergency relief efforts and health systems working in parallel, isolated from one another both institutionally and operationally.

Countries will not be able to achieve universal health coverage (UHC) or health security, or successfully implement national development and health sector plans, if they suffer from the continual impact of emergencies. It must be recognized that health security – global, national and local – is intrinsically linked with both access and quality of health services. It is encouraging to see the joint work catalysed by the Tackling Deadly Diseases in Africa Programme (TDDAP), supported by the United Kingdom Department for International Development (DFID) across all levels of WHO (headquarters, regional and country), to strengthen the capacity of countries in Africa in preventing, detecting and responding to public health threats by creating synergies between health systems and health security.

The focus on high-quality health services at all levels and in all contexts, with a dedicated focus on infection prevention and control (IPC), is extremely commendable, much needed and timely. This issue is closely linked to community trust in health services and health systems – a key determinant of effective preparedness and response to outbreaks. This is crucial for all countries in Africa, not just the 12 countries represented at the workshop.

In May 2018, under the leadership of the Director-General of WHO, Dr Tedros Adhanom Ghebreyesus, the 194 WHO Member States adopted the 13th General Programme of Work (GPW13), together with the “triple billion” targets: 1 billion more people with UHC, 1 billion more better protected from health emergencies and 1 billion more enjoying better health and well-being. These targets will require the formulation and implementation of concrete action to support integration, particularly between the targets on UHC and health emergencies. This workshop contributes to the codevelopment of this concrete action with countries to achieve the greatest impact on population health.
We thank the health system teams at WHO headquarters and the WHO Regional Office for Africa for taking this important initiative forward. The present report will act as a valued reference for country support planning in the WHO African Region. We wish to thank all those involved, in particular the TDDAP health systems team, for their input and commitment to promoting this important joint work, beginning with the 12 countries that attended the workshop.

Dr Prosper Tumusiime  
Director a.i., Health Systems Strengthening  
WHO Regional Office for Africa  
Brazzaville, Congo

Dr Edward Kelley  
Director, Service Delivery and Safety  
WHO headquarters  
Geneva, Switzerland
Acknowledgements

The present technical workshop report was produced by Zandile Zibwowa, with input from Sean Cockerham, Anthony Twyman, Nana Mensah Abrampah and Sohel Saikat.

Reza Sasanto, Lindy Reynolds, Julie Storr, Paul Rogers, Loren Oh and Monica Lamonge made valuable contributions to the organization of the workshop and finalization of the report. The workshop formed part of a joint activity of the Tackling Deadly Diseases in Africa Programme (TDDAP) on strengthening WHO’s country level and regional support for infection prevention and control (IPC) and quality in the context of emergencies, led by Sohel Saikat.

Sincere appreciation goes to Benedetta Allegranzi (Coordinator, Global IPC Unit, WHO headquarters) and Shams Syed (Coordinator, Quality Systems and Resilience Unit) for their overall guidance and support for the work.

WHO headquarters staff would like to thank colleagues working on health systems at the WHO Regional Office for Africa (Nino Dal Dayanghirang, Ann Fortin), the inter-country support teams (Gertrude Avortri, Mekdim Ayana, Pierre Kariyo), and WHO country office colleagues (April Baller, Samuel Besong, Anna Maruta, Redda Seifeldin) for their participation in and contributions to the workshop.

Special thanks go to the WHO Representative in Uganda, Yonas Tegegn Woldemariam, and to Anna Araba, Hafisa Kasule, Ziras Lali, Collins Mwesigye and the rest of the WHO Uganda country office team for their warm welcome and kind support in hosting the meeting in Kampala.

Gratitude is also due to the national participants in the technical workshop, from Cameroon, Chad, Democratic Republic of the Congo, Eritrea, Eswatini, Ethiopia, Guinea, Liberia, Sierra Leone, South Sudan and Uganda, and the partner organization, the International Society for Quality in Health Care (ISQua). See Annex 1 for the full list of participants. Sincere appreciation goes to the Department for International Development (DFID) of the United Kingdom of Great Britain and Northern Ireland, which is the sponsor of TDDAP, with special thanks to Amir Kirollos for representing DFID at the workshop.

Participants in the WHO Regional and Country Capacity Development Workshop (Kampala, Uganda, 23–25 October 2018)
Abbreviations

DFID  (United Kingdom) Department for International Development
DHIS  district health information system
GPW13 13th General Programme of Work of WHO
IPC  infection prevention and control
ISQua International Society for Quality in Health Care
JEE  joint external evaluation
JISS  joint integrated supportive supervision
SDG  Sustainable Development Goal
TDDAP Tackling Deadly Diseases in Africa Programme
UHC  universal health coverage
WASH  water, sanitation and hygiene
Executive summary

Health emergencies, including the devastating outbreak of Ebola virus disease in West Africa in 2014 and 2015 and the ongoing outbreak in the Democratic Republic of the Congo, underscore the need for effective health system preparedness and high-quality health services in tackling infectious diseases. In the outbreak of Ebola virus disease in 2014 and 2015, a total of 815 confirmed or probable cases were recorded among health workers: 328 in Sierra Leone, 288 in Liberia and 199 in Guinea, accounting for 3.9% of all confirmed and probable cases reported (1). The poor quality of care, coupled with suboptimal IPC, were major contributing factors in the widespread transmission of the disease in health facilities. There is an increased need for strong and sustainable linkages between health security and development of health system capacity, with a focused effort to improve the quality of health services, including effective IPC, in national plans and implementation activities. Effective IPC promotes health by keeping patients and healthcare workers safe from avoidable infections and the threat of antimicrobial resistance; it is the cornerstone of high-quality health services. An integrated approach to building health system capacity for high-quality health services can create benefits that spread beyond emergency situations and improve all levels of routine health service delivery.

In this context, a technical workshop was held in Kampala, Uganda, on 23–25 October 2018, with Government representatives from 12 African countries, partners (including the International Society for Quality in Health Care (ISQua) and DFID), as well as WHO experts from country offices, the regional and inter-country support team offices and headquarters. The workshop had the following objectives:

- to understand the current situation regarding health-care quality and IPC in the WHO African Region, as well as current efforts in integration;
- to determine key priorities using collated country experiences of the strengths of and gaps in IPC and quality;
- to identify entry points to strengthen IPC and quality through national health systems and health security policies and plans.

Country-focused perspectives and plenaries indicated that countries are at different stages of capacity and capability for quality and IPC in health services. It was evident that countries which have experienced Ebola outbreaks have made progress on the quality of care using IPC as the entry point, whereas other countries still struggle owing to a general lack of
organizational direction and consideration of quality to ensure the safety of services during routine care and in emergencies. The diversity recognized in the technical workshop provided a realistic snapshot of the situation on the African continent and highlighted the need for a tailored approach to enable effective programme planning and implementation.

Both country-specific and common gaps and needs emerged. For example, participants expressed a common need for a national-level quality directorate or office responsible for providing leadership and direction in efforts to improve health service quality, including IPC, and to spearhead a strong and effective policy and strategy, framework and programme development. Participants agreed that clear governance structures and accountability mechanisms at the national and subnational level, together with dedicated plans and resources and an adequate budget for quality enhancement, including IPC, would result in better coordination and leadership.

There was a consensus on the need for guidance from the global level on minimum quality standards, with indicators that can be monitored at all levels of service delivery – national, regional, district and health facility. This will ensure clarity about the minimum standards for quality, especially for low-resource settings, and help the authorities to establish quality as an essential prerequisite for health-care provision. There was also a consensus that the IPC core components and standards, with their indicators, can be relevant for achieving progress in implementation and impact of IPC programmes within the framework of quality of health services. Countries also expressed the need for critical aspects of quality and IPC in health care to be included in pre-service educational curricula; advanced training is required to promote and create career pathways in these fields. The importance of quality as part of surveillance, water, sanitation and hygiene (WASH) in health care facilities, and consumables (personal protective equipment, etc.) were also stressed in the country perspectives and scoping of country needs.

Immediate action points from the workshop included incorporating feedback from the workshop into ongoing programme planning under TDDAP and other complementary programmes; compiling the various minimum standards and indicators used in different countries for quality and IPC for wider sharing through the WHO Global Learning Laboratory for Quality UHC; and subsequently supporting the development of a fit-for-purpose set of indicators and minimum standards for quality in health services. These will reflect the WHO Guidelines on core components of IPC at the national and acute health-care facility level (2) and the WHO Handbook for national quality policy and strategy (3).
Another immediate action point was for the WHO Regional Office for Africa team to conduct an in-depth health system scoping assessment in South Sudan, taking into consideration some of the key challenges revealed during the workshop.

The regional and country priorities and best practices identified at the workshop will also inform health systems strengthening work with the Health Emergencies Programme, with quality, encompassing IPC, as a critical priority for implementation and emergency preparedness under the International Health Regulations (IHR) (2005).
Background

High-quality health care is an essential component of UHC, as clearly articulated in the United Nations Sustainable Development Goals (SDG). Quality of care can be described in many ways. However, there is a growing consensus recognizing three main domains (4): care should be (a) safe: avoiding harm to the people for whom the care is intended; (b) effective: providing evidence-based health-care services to those who need them; and (c) people-centred: providing care that responds to individual preferences, needs and values.

In addition, in order to realize the benefits of high-quality health care, health services must be timely, equitable, integrated and efficient. Recent global reports (4),(5) highlight widespread evidence on poor-quality care and its resulting impact on overall health outcomes. In high and low/middle-income countries, seven and 15, respectively, of every 100 hospitalized patients acquire a health-care-associated infection (2); in low/middle-income countries, six in every 100 surgical procedures result in surgical site infections (WHO, unpublished data, 2017). This poor record in health-care quality underscores the importance of high-quality interventions aimed at reducing harm. IPC is a key entry point to quality; it provides a practical and evidence-based approach with demonstrated impact across all levels of the health-care system. The existence of strong quality programmes and capacity helps to create the foundation for resilient health services and systems that can adequately prepare for and respond to disease outbreaks. Well integrated, high-quality health services can be the basis for effective prevention, detection and response to public health emergencies.

WHO headquarters and the Regional Office for Africa are working through the DFID-funded Tackling Deadly Diseases in Africa Programme (TDDAP) to strengthen regional and national capacity to strengthen the delivery of high-quality services through focused attention on IPC, promoting the interlinkages between services and with other technical areas. The focus of the technical workshop was to develop thinking, in collaboration with countries, for the design of IPC and quality-of-care pathways that reflect country realities. This codevelopment approach required flexibility and openness in the running of the workshop, while emphasizing the need to take account of the global standards defined by WHO for national directions on quality and the core components of IPC.
The technical workshop on strengthening IPC and quality in health care for resilient health services was convened by the WHO Quality Systems and Resilience Unit under TDDAP, with support from the Global IPC Unit, the WHO Regional Office for Africa, inter-country support teams and several WHO country offices. The workshop was held on 23–25 October 2018 in Kampala, Uganda. Twelve African countries, partner and donor agencies and all three levels of WHO were represented. The objectives of the meeting are listed in Box 1.

Box 1. Technical workshop objectives

**The objectives of the workshop were:**

- to understand the current situation regarding health-care quality and IPC in the WHO African Region, as well as current efforts on integration;
- to determine key priorities using collated country experiences, learning from their strengths and the gaps they have found in furthering and integrating IPC and quality, with reference to the WHO core components of IPC programmes and quality policies and strategies;
- to identify entry points for strengthening IPC and quality through national health systems and health security policies and plans.

The participants were divided into groups for an in-depth exploration of the objectives (see Annex 2 for feedback from the group sessions and Annex 3 for brief descriptions of the situation in each country). They then presented and discussed their findings in plenary to promote the widest possible involvement of all present (see Annex 4 for full programme of work).

The present report summarizes the presentations, discussions and priorities that emerged from the workshop. It aims to provide information and a way forward for participating countries and for a wider audience with an involvement or interest in IPC as a core element of quality in health services. Further details of linkages between quality issues and IPC can be found in Annex 5, and details of Ugandan media coverage in Annex 6.
Summary of proceedings

Welcome and opening remarks

Dr Yonas Tegegn Woldemariam, WHO Country Representative, Uganda

Dr Yonas Tegegn Woldemariam, the WHO Country Representative in Uganda, opened the workshop by welcoming participants to Uganda. African countries are vulnerable to public health emergencies, and Uganda is not exempt. With over 20,000 people crossing the border between Uganda and the Democratic Republic of the Congo every day, disease outbreaks are inevitable, but epidemics are not. The best line of defence is to make health services resilient and the health system better prepared to prevent, detect and respond to health emergencies. At the first point of contact with the health system, good surveillance systems must be in place for disease detection, with effective IPC measures to prevent infections from spreading to the next patient or the health worker.

During outbreaks, communities and health workers fight the epidemic with great courage, dignity and personal sacrifice, and the State has a duty to protect them. It is not clear why health workers are dying from Ebola virus disease and whether the health workforce has been trained in IPC. For those that receive training, it is essential to ensure that the training is put into practice. The dip in the use of health services during emergencies is proof of a lack of trust in facilities by the community; most likely concerns and questions over good IPC practices and the quality of health services being offered.

It is encouraging to see the TDDAP programme bringing colleagues together from different countries in the Region. The focus on high-quality health services with a dedicated focus on IPC is extremely commendable, much needed and timely. Integration efforts to maximize synergies are critical, with a simple goal – to be as effective as possible in efforts to promote quality of care at the front line to serve our communities. This will contribute to functional health systems, restored community trust, effective contributions to preparedness (nationally and at facility level), disease response and early recovery.

Emergencies and health systems have traditionally worked on parallel tracks, but this situation cannot continue. Health security and UHC mutually reinforce one another and are interdependent. Creating a parallel system rather than relying on the existing health system will result in situations where countries have to start from scratch after an emergency. Emergency responses must thus be integrated into the wider health system.
Under the leadership of the Director-General of WHO, Dr Tedros, and the support of the 194 Member States of WHO, the Organization has adopted the 13th General Programme of Work (GPW13) with the “triple billion” targets: 1 billion more people with universal health coverage (UHC), 1 billion more people better protected from health emergencies and 1 billion more people enjoying better health and well-being. This commitment will require both the WHO Secretariat and the Member States to establish and implement concrete action to support national health systems. The workshop contributes to the joint development with countries of this concrete action that will have the impact that we all seek.

Dr Joseph Okware, Commissioner for Quality Assurance and Inspection, Ministry of Health, Uganda

Uganda has had several experiences with infectious diseases, with Ebola virus disease being a concern. There are currently no cases in Uganda, but the authorities are constantly vigilant, given the long border with the Democratic Republic of the Congo. Improved IPC within the context of high-quality health service provision in health emergencies is thus very relevant to the realities of today. The Ministry of Health has accelerated preparedness and surveillance activities in response to the situation in the Democratic Republic of the Congo; the technical workshop is well timed to strengthen capacity in IPC and quality work.

IPC is a universal component of health systems, influencing the safety of the people they serve as well as health workers. Quality programmes with a strong focus on IPC can contribute to the foundation of preparedness and response to outbreaks which is key for building resilient health systems that can prevent, detect and respond.

All participants in the workshop should take time to reflect on strengths and weaknesses, share the lessons that others have learned and identify mechanisms to integrate IPC into the broader framework of high-quality health services for long-term sustainability.

Introduction and objectives

Dr Sohel Saikat, Quality Systems and Resilience Unit, WHO headquarters

Dr Saikat began by giving an overview of recent and ongoing emergencies from a health systems perspective, followed by relevant concepts on resilience and its meaning, particularly in relation to quality and preparedness, the TDDAP initiative and the main objectives and deliverables of the technical workshop. The main goal of the programme is to reduce the impact of communicable disease outbreaks and epidemics on populations in Africa,
with three objectives centred on enhancing capacity for health security within broader action to build the foundations of robust, responsive and resilient health systems. The subsequent five outputs include a key emphasis on health systems strengthening and linkages between health systems and health security. These culminate in a number of deliverables, 19 activities and 59 subactivities, with the technical workshop coming under one subactivity.

Notably, the thinking around integrating health systems and health security includes the following objectives.

1. Jointly identify critical gaps in health systems resilience at country level.
2. Develop entry points for input by health systems into health security needs and vice versa, at policy, technical and operational levels.
3. Encourage a systematic approach to country planning for IHR (2005) implementation that considers health systems resilience.

Quality and preparedness play a major role in building resilient health services. The relationship between quality attributes (safety, effectiveness, people-centredness) and preparedness attributes (governance and policy, capacity, resources) are shown in Fig. 1: countries can be high-achieving in either quality or preparedness, but a resilient health system is the product of both high quality of care and high-level preparedness, which mutually reinforce one another.

Fig. 1. Quality and preparedness – integrated need for health systems resilience
Quality: key concepts and directions

Dr Shams Syed, Coordinator, Quality Systems and Resilience, WHO

Dr Syed, Coordinator, Quality Systems and Resilience, Department of Service Delivery and Safety, WHO headquarters, emphasized the importance of quality in achieving health security, noting that there is no global health security without local health security and no local health security without quality services. Quality is the bridge between health security and health systems integration: the Ebola virus disease outbreak in 2014 and 2015 is an example of health security undermined by the failings of health systems.

There is a growing acknowledgement that health services should be effective, safe and people-centred, as well as timely, equitable, integrated and efficient. IPC, along with infrastructure and water, sanitation and hygiene (WASH), is an essential component of quality and a reason for it being a focus of the workshop.

Quality is central to UHC – access has to be combined with quality to achieve the desired health outcomes. A recent publication by WHO, the World Bank and the Organisation for Economic Co-operation and Development, “Delivering quality health services: a global imperative for UHC” (4), likewise stated that, without quality health services, UHC remains an empty promise. Key technical content from this publication was shared at the workshop.

Although there is a global consensus on the essential dimensions of quality, countries must acknowledge their own real situation when crafting a national vision of quality. The essential elements for defining a national direction on quality are shown in Fig. 2. It requires careful stakeholder engagement and consensus building. WHO is supporting national quality efforts through the National Quality Policy and Strategy Initiative (6). The initiative aims to support countries in improving the performance of their health-care systems through focused efforts on quality. The importance of local context and the opportunity to codevelop thinking were emphasized.
Infection prevention and control: key concepts and directions

Dr Benedetta Allegranzi, Coordinator, Infection Prevention and Control Unit, WHO

Dr Allegranzi, Coordinator, Infection Prevention and Control Unit, Department of Service Delivery and Safety, WHO headquarters, began her presentation by introducing the IPC team at WHO headquarters. The work she presented is the result of close collaboration with, and learning from, the regional and country teams. IPC has an important role to play in achieving the SDGs and GPW13, and is important for health outcomes. It is important to integrate IPC practices into each of the seven domains of quality to ensure better outcomes.

The IPC Global Unit has published guidelines on the core components of IPC at both the national and acute health care facility levels. The IPC core components are a roadmap to indicate how IPC effectively prevents the harm resulting from health-care-associated infections and antimicrobial resistance. They were identified using the available evidence and consensus from experts and professionals working in the field, and include 11 evidence-based recommendations and three good practice statements across eight core components for facility-level programmes and six core components for national programmes. The eight core components are: (1) a functional IPC programme; (2) evidence-based IPC guidelines; (3) facility-based and national IPC training and education programmes; (4) surveillance of health-care-associated infections; (5) multimodal strategies; (6) audit and feedback (7) staffing and bed occupancy; and (8) built environment, materials and equipment for IPC (2).
While guidelines and policies are the cornerstone, it is the aspect of practical implementation within health systems and at the point of care that becomes key and often fails. In fact, in a recent set of country self-assessments of antimicrobial resistance conducted in 2016, 86% of countries (146 in all) reported that they had a national policy or plan for IPC, but only 37% had some level of national implementation and monitoring. WHO’s mandate is to improve this state of affairs by supporting country-level implementation alongside effective leadership.

In collaboration with regional offices and experts from countries, the WHO IPC Global Unit has developed and tested implementation strategies and tools to facilitate the uptake and translation into practice of guidelines. The use of a five-step approach founded on quality improvement theory is proposed to implement any IPC programme or intervention; this involves deeply rooting a multimodal strategy within every step of the cycle of continuous improvement (Fig. 3). This is the key approach to achieving and progressing IPC implementation and, in turn, a quality agenda. Multimodal strategies comprise several elements or components (three or more; usually five), implemented in an integrated way with the aim of improving outcomes and changing behaviour. The WHO IPC multimodal improvement strategy covers five main areas: (1) system change; (2) training and education; (3) monitoring and feedback; (4) reminders and communications; and (5) culture change.

Dr Allegranzi presented many implementation tools that have been developed to support countries along their journey, including some case studies to illustrate the impact of IPC and its natural integrative role in the improvement of quality of care. She encouraged participants to take advantage of the workshop to hear and learn from each others’ experiences of using these tools and resources and the lessons they have learned.
IPC and quality in the context of health emergencies

Dr Ann Fortin, WHO Health Emergencies Programme, WHO Regional Office for Africa

The WHO African Region experiences over 100 health emergencies annually, with threats to national, regional and global health security, socioeconomic disruption and impacts on the implementation of SDG3 (good health and well-being for all people). The outbreak of Ebola virus disease in 2014 and 2015 showed that pathogens pose a unique threat to global security. Limited preparedness can have a big impact: the humanitarian/emergency system is essential for response, and WHO has a crucial leadership role in emergencies. The key functions of the WHO Health Emergencies Programme include supporting countries in assessing and addressing critical gaps.

Under IHR (2005), Member States are required to develop minimum core capacities to detect, assess, notify and respond to public health threats. Capacities are assessed through the IHR Monitoring and Evaluation framework, which includes a voluntary joint external evaluation (JEE) by domestic and international experts. Capacities assessed in the JEE include prevention and control programmes for health-care-associated infections: over half the countries in Africa that have undergone the JEE have no approved national plan for programmes on these infections.

IPC plays a key role in quality service delivery. In the recent Ebola outbreak in the Democratic Republic of the Congo, at-risk health facilities in the province of Equateur were found to lack basic water, electricity, sanitation and waste disposal services. The facilities did not have a system for detecting, isolating or managing suspected Ebola patients. It is essential to improve health service delivery through concerted action on IPC to facilitate prevention and detection of and response to health emergencies, as well as building the resilience of health systems to provide health services following an outbreak.

Regional perspective on quality health services, including infection prevention and control

Dr Gertrude Avortri, Inter-country Support Team for East and Southern Africa, Dr Mekdim Ayana, Inter-country Support Team for West Africa, Dr Nino Dayanghirang, Health Systems and Services, Dr Pierre Kariyo, Inter-country Support Team for Central Africa

To accomplish the SDG3 target on achieving UHC through access to high-quality essential health-care services, the Regional Office for Africa has developed a framework for action on UHC incorporating many different
principles for effective health systems strengthening and has acknowledged the importance of IPC as an entry point to improving quality in a health system. While quality of care is difficult to measure, three important attributes of quality have been identified in the African Region: (1) client perceptions of care based on their experiences; (2) level of safety during care process and (3) effectiveness of care provided.

Many recent outbreaks that have affected countries in the African Region have highlighted the importance of delivering high-quality health care. Quality is mentioned in many health sector documents; however, the quality management structures and quality of care activities vary widely from country to country. Some efforts to improve quality, including IPC, in the Region include preparedness and response activities against Ebola virus disease, development of IPC guidelines and ongoing activities to monitor and strengthen IPC practices in health care facilities.

Viewpoints on quality within the Regional Office centre on ways of achieving sustained improvement in the Region. There is a need for concerted activities, such as engaging country leaders to advocate for governance structures to drive quality of care because WHO cannot achieve this alone; a multisector and multipartner integrated approach; training country teams to lead the process; establishing monitoring and evaluation mechanisms; and ensuring that global/regional guidelines are adapted to the local context.

**Water, sanitation and health and infection prevention and control for high-quality health services**

**Collins Mwesigye, National Professional Officer, WHO Country Office, Uganda**

Water, sanitation and hygiene (WASH) has important implications for improving health outcomes, enabling IPC and preventing and combating antimicrobial resistance. There are many benefits of adequate WASH practices in health-care facilities, including lower health-care costs, more people-centred care, improvements in staff morale and performance, disease prevention and treatment, health and safety, resilience against climate change and disasters and WASH in the community. Conversely, when WASH practices are inadequate, this can increase the risk of health-facility-associated infections, erode patients’ trust in health facilities and cause many other adverse health effects.
Some of the key challenges for WASH implementation in Uganda are: lack of WASH indicators in the health information system, lack of a sustainable mechanism for operation and maintenance of WASH in health care facilities and lack of standard WASH services to enable health-care workers to practise good hygiene.

**Partner perspective on quality in health services**

**Apollo Basenero, International Society for Quality in Health Care expert and Chief Medical Officer, Quality Management Program, Ministry of Health and Social Services, Namibia**

Dr Basenero stressed the importance of working with WHO to promote sessions on integration between IPC and quality. He introduced the Africa Communities of Practice, a network of health-care professionals in ISQua committed to improving the quality and safety of care in Africa through exchanges of experience.

The experience of Namibia with IPC includes a partner-funded injection safety programme that ran from 2004 to 2012. It proved possible, with committed resources, to improve most of the IPC indicators, but there were challenges of sustainability. Efforts to revive IPC activities included an assessment of quality management structures, including IPC, in 2014 that identified a lack of guidelines in critical areas such as central sterile supplies departments, phlebotomy and operating theatres.

Guidelines were produced, and Namibia took steps including the appointment in 2016 of a national IPC practitioner, creation of a national multidisciplinary IPC committee, appointment of IPC focal points in every hospital and the selection of indicators for monitoring IPC. In 2018, Namibia finalized a quality management policy and strategy and quality standards in which IPC is identified as a key element of service delivery.

The way forward should include continued engagement with the regions regarding submission of IPC indicators, and discussion of the results of the indicators with the management of the Ministry of Health and Social Services. Other desirable measures are advocacy for IPC commodities and supplies, the implementation of quality standards and continuous quality improvement.
WHO global survey on implementation of the core components at the national level: preliminary data from the African Region

Anthony Twyman, Service Delivery and Safety Department, WHO Headquarters

Anthony Twyman presented a preliminary analysis of a recently conducted WHO global survey on implementation of the IPC core components at the national level, focusing on the African Region. The purpose of this global survey was twofold: (1) to assess the extent to which effective structures and actions have been implemented at the national level; and (2) to determine where gaps remain for further implementation.

The survey was conducted in a stratified sample of countries that have signed the Clean Care is Safer Care pledge, targeting national prevention/IPC focal points. Semi-structured interviews were used, involving a discussion between assessor and designated national prevention/IPC focal point. All responses were confidential and summarized regionally.

Twenty-three countries from the African Region participated in this preliminary analysis. The findings indicate that there is a trend towards integration of IPC within quality programmes and initiatives, but that implementation of such programmes remains inadequate, with a general lack of funding, in-country expertise and dedicated human resources for the execution of the desired functions.

Moreover, there is an increase in the use of multimodal strategies for IPC implementation although, again, this varies according to the specific IPC focus area (i.e. they are more often used for hand hygiene improvement than for specific vertical interventions). IPC training and surveillance of health-care-associated infections remain weaker elements within the IPC core components in terms of overall implementation. Nonetheless, strong leadership and political will continue to be required to advance IPC and integrate efforts into national quality strategies.
Scoping exercise on the current situation on infection prevention and control and quality in Africa

Zandile Zibwowa, Service Delivery and Safety Department, WHO headquarters

Zandile Zibwowa presented a scoping exercise on the state of IPC and quality in African countries, using a set of indicators drawn from various assessment tools. The methodology included discussions with selected experts and a review of the scientific literature, grey literature, presentations, JEE reports and information from WHO, partners and ministries of health.

The scoping exercise demonstrated a strong level of stated commitment to quality and IPC policies, plans and programmes. However, few of the policies or plans translate into strategies, and even fewer into functional programmes. There is limited follow-up to provide accountability or operationalize policies.

National vaccine access and delivery are at a high level in most countries, with 25 of the 36 countries achieving JEE scores of 4 (demonstrated capacity) and 5 (sustainable capacity). There is also a general consistency among the countries in basic quality principles employed in disease-specific programmes, such as being safe, effective and people-centred.

The gaps, however, include the limited attention paid to health systems, particularly IPC and quality, in health security documents. Disease-specific programmes also tend to operate in "silos" and require mainstreaming and harmonization. Training and education programmes at the national and subnational levels remain reliant on partnerships with international organizations or implementing partners. An additional challenge is the distribution of the workforce, which impacts the quality of services.

The scoping exercise is just one step towards an understanding of the current status of IPC and quality within the Region. The workshop discussions and presentations provided more detailed insight in real time.
Country perspectives of quality and infection prevention and control in health services

Each of the 12 participating countries presented its current situation in relation to the quality of health services, with specific emphasis on IPC (see Annex 3). The perspective of Namibia was captured from the ISQua expert’s presentation on the situation of quality and IPC in health services in Namibia.

The diverse set of countries present gave varied assessments of the current situation of IPC and quality, with some countries being well advanced and others still in the early stages. However, some common features can be identified from the presentations. They can be summarized as follows:

- six out of 12 countries have a dedicated national policy framework on quality and/or IPC;
- seven out of 12 countries had a national directorate, office or equivalent for quality, encompassing IPC;
- three out of 12 countries had implemented a national surveillance system for health-care-associated and/or surgical site infections, although there were still challenges in overall recording and reporting; most of the countries did not have national surveillance systems in place, with some having only facility-led initiatives;
- there was a general need for a well defined curriculum for IPC and quality in institutions of higher education responsible for training;
- there was a wide variation in the standards adopted by countries and general confusion about the definition of core quality indicators;
- linkages with health emergencies as part of functional health systems strengthening are reported by most countries to be passive and unclear, with no active involvement in national planning for health security except when driven by the threat of an emerging outbreak (in the case of IPC);
- fragmented quality initiatives need to be coordinated and streamlined at the national level;
- most countries noted that the lack of allocated resources for quality and IPC was a hindrance in the implementation of good practices, even when a policy framework or programme was in place.
Plenary discussion

Development of a national strategic plan on quality or infection prevention and control

The presence of a dedicated national strategy, plan or policy was observed to be consistent with better institutional and funding support in national programmes for quality or IPC. In sharing its best practices in developing a national strategic plan on quality, Eswatini described the time frame for the development of the plan. This involved (1) a review and evaluation of the previous strategy; (2) stakeholder consultations; (3) a desk review of relevant documents; (4) a technical workshop; (5) validation by stakeholders; and (6) printing and distribution of the plan.

The discussion further revealed that countries reporting a lack of a dedicated budget often had poorly resourced facilities – no staff dedicated to IPC or quality, a lack of consumables such as personal protective equipment, poor infrastructure and hand hygiene, and a lack of other WASH facilities. It was evident, however, that there is a loose correlation between the presence of a dedicated policy framework, the presence of a national directorate or office and dedicated programmes on IPC and/or quality, with an associated budget.

Surveillance of health-care-associated and surgical site infections

This was generally an area of weakness for all countries. Eswatini was one of the only countries to confirm the beginnings of a national surveillance system for health-care-associated infections, with routine surveys (lasting 1–2 weeks) conducted in some hospitals using an internally developed tool. Eritrea reported the presence of a surveillance system for surgical site infections but noted the challenge that only a few hospitals are recording and reporting, highlighting this as an area that needs further strengthening. One best practice from Namibia in developing and maintaining in place a strong surveillance system for surgical site infections is the existence of a national protocol with a measurement indicator on which all 35 hospitals are required to report quarterly. The presence of IPC focal points in hospitals has been beneficial in championing the surveillance systems; however, this remains a new initiative with some details still being refined.

Measurement – minimum standards and indicators

Throughout the presentation of country perspectives and the accompanying discussions, there were several references to the use of standards and indicators for either IPC or quality, in which, in some cases, the terms “standards” and “indicators” were used interchangeably. A point of clarification was raised, noting that indicators are a way of measuring against minimum
standards: countries first need to define the standards from which indicators can be derived for routine monitoring and reporting. In other words, indicators should be developed to show the steps needed to achieve the minimum standards set at the national level.

The main area of concern was the lack of clarity within countries about the minimum standards to be adopted, particularly in respect of the quality of health services. Countries reported using various and diverse methodologies, with no harmonization or consistency and often citing IPC-specific indicators as a proxy for quality. One suggestion from the discussion was to collect the various standards being used in different countries, then compile and share them for knowledge exchange through the WHO Global Learning Laboratory for Quality UHC. That would be a temporary measure; the development by WHO of a set of minimum standards and indicators for quality relatable to low- and middle-income countries was proposed as a permanent solution. As a first step, there was interest in reviewing the recently developed IPC frameworks and identifying the best indicators to use at the national level for monitoring and reporting on the quality of health services.

Uganda has several quality indicators for its national reporting system, one of which is the number of avoidable deaths – showing how many deaths can be linked to poor-quality care or a lack of care. There are also clinical audits on maternal and perinatal deaths; some of the data from the audits have been used in a recent report in *The Lancet* (12). The availability of consumables is another indicator which has poses a significant challenge, particularly in the case of personal protective equipment, since facilities have experienced chronic shortages. In addition to these reporting indicators, service availability and readiness assessments are conducted at least twice every five years.

Sierra Leone also shared experiences with the use of 68 IPC indicators, clustered into 10 domains, in its assessment tool (covering screening, IPC organization, hand hygiene, personal protective equipment, sharps safety management, decontamination of medical equipment, linen environment), with each domain having an average of seven detailed standards.

Liberia also shared experiences of the use of quality indicators using its joint integrated supportive supervision (JISS) tool, which is connected with and feeds into the district health information system (DHIS2). Currently, this tool reports on outpatients only, although there are plans to expand it to inpatients in future. The quality indicators adopted for the JISS were triggered by an interest in performance-based financing, in which an indicator of the quality of care is needed to manage the payment of bonuses. This created the opportunity to promote the use of the JISS tool for quality measurement on a national dashboard. At present, 13 technical areas are measured for quality using the JISS tool, which has been piloted at the county level. These areas
include IPC, mental health, family health, maternal and child health (antenatal and postnatal care), noncommunicable diseases, tuberculosis, HIV, malaria, etc.

**Sustainability of donor-driven support for quality improvement**

Discussions arose about the sustainability of donor-funded initiatives to address the key priorities identified. One comment was that, typically, quality improvement efforts in health facilities are vertical in approach, limited in time and conducted by one team, supported by a donor or partner. The flaw in this approach is that the lack of a multidisciplinary team to develop efforts jointly often disrupts the culture of quality in the whole facility, as the efforts are often perceived as the responsibility of one team. Moreover, once the donor-supported project ends, there is no continuity plan in place to ensure sustainability.

Namibia shared a best practice. Major donor support in Namibia ended in 2012 and the Government needed to ensure the sustainability of efforts through integration with mainstream Ministry of Health programmes and activities. It became a requirement that every donor proposing to support any programme needed to have a sustainability plan with clear timelines for integrating activities into routine services during the project. There was also a comment from the audience encouraging direct involvement of ministries of health in codevelopment and programme/project planning with donors to allow clear direction on the objectives of each project and the way the project will be adapted to local contexts and integrated into routine health service strengthening and maintenance.

**Public-private partnerships**

Namibia shared its best practices, showing how some hospitals are leveraging public-private partnerships to support capacity and the implementation of IPC and quality practices. For instance, some private hospitals (with IPC specialists) offer support to public hospitals through mentorship programmes to build capacity in this technical area. In addition, public hospitals often face challenges finding liquid soap dispensers for handwashing, while private hospitals dispose of a large number of empty containers each week. The partnerships and relationships developed between the two sectors resulted in private hospitals collecting empty soap containers for public hospitals to refill with liquid soap purchased in bulk.

**Quality of services in refugee settings**

Several presentations included mention of a high number of refugees, which led to a discussion of the quality of health-care service provision in refugee settings. Cameroon shared its experiences of cholera, measles and outbreaks
of haemorrhagic fever in refugee settings and camps and described the specific standard operating procedures in place to deal with such situations. Measures in these protocols include stringent IPC and WASH, setting-up of treatment centres, education and health promotion. There are ongoing efforts to improve the quality of health-care services in refugee settings.

**Partner and stakeholder coordination**

All countries mentioned the presence of two or more partners supporting, or having supported, different aspects of quality or IPC activities at various levels of the health system. The issue of coordination of partners became an area of discussion, with reports from some countries of duplication of efforts owing to lack of coordination of partners by the relevant ministries of health. Liberia shared its best practice in this regard, which included weekly technical working group meetings involving all active partners supporting quality and IPC.

**Capacity, resources and infrastructure**

Insufficient structural capacity and resources were noted as significant barriers to effective implementation of high-quality services and adherence to IPC practices. Key examples were a lack of isolation rooms and personal protective equipment. Since the Ebola virus disease outbreak in 2014 and 2015, Sierra Leone has had isolation rooms built in all hospitals (eight-bed isolation rooms and triage at all Government hospitals, four-bed capacity for smaller centres and two-bed capacity for peripheral health units). Several countries also reported other structural barriers, such as a lack of sinks for handwashing in hospital wards and outdated sterilization and waste management systems at most health facilities that make it difficult to implement IPC and WASH practices.

Human resources were reported to be a critical area of concern, with some countries reporting that dedicated IPC or quality focal points in hospitals were better able to champion these programmes at the facility level. The leadership and commitment of the focal points further drive the ability to involve other teams and programmes, aligning goals and objectives for a common purpose.

One of the remarks from the participants was that a high quality of care is often perceived as a luxury in most ministries of health in the African Region and, as such, is not awarded any budget or resources for implementation. They declared the need for strong advocacy at all levels of the health system, including health facilities, to drive the quality agenda more effectively. It was further remarked that effective human resource plans to retain trained personnel in health facilities are equally important to guarantee the sustainability of all ongoing training efforts.
Breakout sessions

In the breakout sessions, countries were divided into three groups:

**Group 1**: Eritrea, South Sudan, Swaziland, Uganda

**Group 2**: Cameroon, Chad, Democratic Republic of the Congo, Guinea

**Group 3**: Ethiopia, Liberia, Sierra Leone.

The discussion was facilitated by the inter-country support teams, and the findings presented by a national expert from a participating country. Participants addressed the following questions and objectives.

1. Can you identify and list **five key priority needs per country** for IPC and quality? Try to categorize these priorities based on short (1–3yrs), medium-term (3–5yrs) and long-term (>5yrs) plans. On a scale of 1–5, list them in order of importance.

2. What would you consider as potential **opportunities and next steps** to address the above-mentioned needs, e.g. technical issues (policy/strategy/operational) and resources (human and financial)?

3. What **role do national and subnational authorities and structures, WHO and other key stakeholders** (technical partners, professional entities, funding institutions, nongovernmental and faith-based organizations, communities) play in addressing the above-mentioned priorities?

4. How best can **IPC and quality be emphasized** in ongoing national and regional initiatives for health security and health systems strengthening (e.g. policy, strategies, operational plans and programmes)?

Feedback from the three groups is summarized in Fig. 4. The most common priority areas cover strengthening of policy frameworks and governance structures, preparedness at different levels of the health system, training and education of health workers, resource management and monitoring and evaluation. Ten countries identified strengthening of IPC and quality policies and programme frameworks as a priority area, while five countries highlighted resource availability and distribution, governance structures and monitoring and evaluation measurement as key priority areas for building their respective IPC and quality programmes. Additionally, eight countries identified the surveillance system for health-care-associated and surgical site infections, development and training and education of health workers in the fields of IPC and quality as critical areas for improvement. Countries in the African Region are at different stages in the development of IPC and quality programmes and have thus identified different key priority areas for developing their IPC and quality programmes.
Plenary discussion

After the group sessions, discussions were held in plenary which centred on the points outlined below.

Training, education and career development needs

Several streams of thought emerged around the need for training and education. These priorities were identified as critical in multiple countries, relating mostly to advanced training and education. A point of concern was raised based on experiences in Namibia, where postgraduate diploma training is available in IPC. The training takes on average three years, and the newly qualified staff either return to their old position, with no added value, or move to private hospitals. Another concern from the experience of Ghana through the Inter-country Support Team was that there is support to train personnel in the specialized fields, but a lack of human resource planning to cater for the large numbers of qualified and specialized workers. It was concluded that a clear and effective national human resources strategic plan is the entry point to ensure that efforts invested in training and education benefit service delivery provision at all levels of the health system.

A related question was posed to the audience: how could building a career pathway for IPC help to build and increase the capacity of the health workforce? Sierra Leone shared the concern that most of its dedicated IPC focal points have only basic training, whereas other programmes (mental health, paediatrics, etc.) offer career progression and support. It is feared that there is likely to be a shift from IPC or other types of programmatic focus on quality to other general programmes that offer greater support in professional development.

ISQua presented the Namibian experience, in which health-care workers are encouraged to take a three-year course in advanced IPC. The challenge is a lack of opportunity for IPC workers within the health sector; in recognition of this, the Ministry of Health has created opportunities for IPC workers to gain job promotion as an incentive for them to pursue the training.
EVD: Ebola virus disease; HAI: health-care-associated infection; IPC: infection prevention and control; SSI: surgical site infection.

**Linkages between health emergencies and health system to promote infection prevention control and quality**

In discussing the linkages between IPC, quality and health emergencies, participants emphasized the need to ensure a strong link with emergency work and mapping of the key entry points. One concern highlighted was that, currently, the JEE includes IPC considerations in the technical area of antimicrobial resistance, which does not fully encompass all aspects of IPC and does not focus on the quality aspects of health services. However, the IPC indicators do highlight the importance of implementation of guidelines, monitoring and feedback at the facility level. Given that the JEE evaluations provide countries with assessment and planning opportunities (e.g. national action plans for health security), participants strongly urged them to take advantage of this opportunity and called for IPC and quality focal points to be involved in national health security initiatives and involved in emergency preparedness activities.

The lack of health security considerations in several health systems policies risks the creation of “silo” strategies, stated one participant. This is the current situation in most countries, partly due to the lack of involvement by both sides during drafting and consultation for the development of the policy frameworks; these are largely prepared during response or recovery periods.

Another discussion centred on ways of implementing IPC before and during emergencies, with one participant requesting a guide on ways of improving
quality service delivery and IPC practices in emergency situations. This was addressed by a comment from the audience that IPC activities for preparedness for disease outbreaks is no different from IPC in routine settings; concepts and activities should be integrated and linked at both country and global level. The IPC Global Unit and the Health Emergencies Programme plan to bridge this gap in 2019 by producing a guidance document on this topic.

One concluding remark highlighted that strengthening the routine health system automatically helps it to prevent, detect and respond to health emergencies effectively; the provision of surge capacity will simply complement an already resilient system. Continued self-reflection on action that promotes the separation of health systems and health security will guide efforts to create a systematic approach, combining endeavours to remove the barriers or boundaries between systems and security.

**Quality indicators for monitoring and evaluation**

The development of a global set of indicators for quality was deemed critical. Owing to a lack of clarity on internationally agreed minimum standards for high-quality health services, countries have been setting up standards as they saw fit, without clear global guidance. The WHO Handbook for national quality policy and strategy provides non-prescriptive guidance, with “core measures for quality” as one of the eight elements discussed.

Discussions are ongoing on the global consensus regarding quality indicators. There is a need for linkages with existing national health management information systems and quality-related interventions, as well as stakeholder engagement in order to achieve a global consensus. However, there are reference sources that countries can use to map out their path towards improved quality service delivery.

These include:

- global efforts in measuring quality of care resources (13);
- illustrative examples of quality indicators – an analysis of global indicators based on the domains of quality, which can serve as a starting point for consideration by countries;
- national quality policy and strategy – tools and resources compendium;
- UHC health service coverage index (14), which has strong linkages with quality and which is currently being refined.

A further comment emphasized that select quality-related indicators are proxies for diagnosing the state of quality work in a country. However, there is
a need for a streamlined core set of quality measures at the national level, to ensure that countries are not swamped by hundreds of indicators. An interim action point derived from this comment was to work with countries to refine their pathway towards quality indicators, recognizing that a global consensus is emerging.

IPC indicators (9) have been clearly identified over the last few years, and WHO recommends their measurement at the national and facility level. Several countries are adopting them from the WHO IPC core components assessment tool (IPCAT) and framework (IPCAF). Both tools outline numerous IPC indicators, of which some could be chosen as proxy measures of quality, given that IPC is only one technical area for promoting and supporting quality of care. Noting that countries are at different stages of progress in IPC, participants encouraged countries to use the guidance documents as a reference in developing their national plans and programmes.

**Advocacy to promote the quality agenda**

In response to the lack of policy frameworks and a defined institutional home and budget for quality in countries, one comment touched on the need for strong advocacy at the national level to create awareness and commitment to quality at high levels. An example shared by Namibia described how a national-level vision at the Ministry of Health to promote high-quality service provision created accountability and promoted political commitment to advance quality work at all levels of the health system. In addition, IPC is the responsibility of a subunit under the quality assurance unit, which has quality improvement committees as well as IPC focal points in health facilities to champion relevant programmes and activities.

In Sierra Leone, political leaders are very interested in quality of care, and this has made it a priority in health facilities. In addition, improvements in quality of care through the work on quality for maternal, newborn and child health are being introduced along with centres of excellence to improve the quality of health services. Sierra Leone is a member of the Network for Improving Quality of Care for Maternal, Newborn and Child Health. In Eswatini, the Government recently signed a quality policy statement and conducts spot checks in health facilities to ensure compliance.

In the experience of Liberia, establishing the Quality Management Unit was the first step in demonstrating leadership and commitment to improving health outcomes through a holistic approach to quality. Liberia acknowledged that there is more day-to-day work needed for continued advocacy. This includes ongoing stakeholder engagement to address issues of quality within programmes.

All these different experiences and best practices from various countries have reportedly promoted quality within the national health agenda.
Linkages with health security

The three groups were also tasked with suggesting various ways to strengthen coordination and integration with IPC efforts, quality services activities and health security initiatives at the national and subnational level. These suggestions include the following.

1. National health security initiatives:
   • if a JEE has not been conducted to date, ensure that approaches to quality, including IPC, are considered when conducting the JEE;
   • if a national action plan for health security has been developed, review the plan and consider advocacy for IPC and quality consideration as part of health systems strengthening.

2. The health systems policy framework should have direct linkages with and considerations of health security, such as the health sector strategic development plan, and vice versa.

3. Operational research to link IPC and quality with national health security plans:
   • operational integration and conceptual, practical linkages between health systems strengthening and health security and emergencies.

4. To have quality/IPC focal points or quality teams with IPC representation contribute to national action plans for health security.

5. In refugee and settlement camps, place a strong focus on IPC practices and delivery of high-quality services; advocacy for involvement ought to come from lead technical experts in quality and IPC.

6. Consideration and provision of implementation strategies for quality, with a specific focus on IPC in contingency plans against epidemics and the national plan for health development.

7. Consistent and integrated financing mechanisms for quality programmes, including IPC, specified for health security interventions:
   • make the necessary budgets available and encourage flexible funding for health systems strengthening and preparedness.

8. Development of a training curriculum that explains the linkages between health systems and health security, followed by mandatory training (pre-service and in-service) with continuing professional development mechanisms.
Summary of workshop findings compared with workshop objectives

1. Current situation regarding health-care quality and IPC in the African Region:
   - stated commitments to quality and IPC policies and programmes have rarely translated into strategies or functional programmes;
   - limited attention is paid to health systems, particularly IPC and quality, in health security planning;
   - quality management structures and quality-of-care activities vary widely from country to country;
   - six of the 12 countries that gave presentations at the workshop had a dedicated national framework on quality, including IPC, and there was a wide variation in the minimum standards adopted by countries;
   - surveillance of health-care-associated and surgical site infections is generally an area of weakness for all countries;
   - none of the countries could point to dedicated resources, e.g. a budget line, for IPC or quality.

2. Key priorities – regional and country-focused:
   - national policy and programme frameworks for IPC and quality are needed to create strongly integrated programmes;
   - development of a global set of quality indicators is critical to provide internationally recognized minimum standards;
   - linkage of IPC and quality with health security in policies and plans is needed to prevent a “silo” approach;
   - there is a need for advanced education, training and career development in the area of IPC and quality;
   - implementation and development of surveillance systems for health-care-associated and surgical site infections are needed at the national level.

3. Policy options to strengthen quality, including IPC, as a requirement for resilient health systems for emergency preparedness:
• high-level advocacy to place quality of health services and IPC as a prerequisite for progress towards UHC and the SDGs;
• creation of a national-level directorate or office responsible for quality, including IPC;
• development of a streamlined core set of quality measures at the national level;
• provision of resources, including clean water, reliable electricity, good sanitation and safe waste disposal at health facilities;
• development of a training curriculum for IPC and quality that focuses on the linkages between health systems and health security;
• designation of quality or IPC focal points in hospitals, whose functions will include championing surveillance systems.
Next steps

The findings from the technical workshop and related scoping exercises informed the development of the next steps. A full stepwise approach is depicted in Fig. 5, followed by more detail on some key next steps.

Fig. 5. Next steps

Quality measures and minimum standards

By utilizing ongoing work on quality measurement, TDDAP will support the development of a fit-for-purpose set of indicators and minimum standards for IPC and quality in health services, reflecting the WHO Guidelines on core components of infection prevention and control at the national and acute health-care facility level and the WHO Handbook for national quality policy and strategy.

Advocacy for quality and IPC considerations in the integration of health security and health systems

The report will be shared with policy, technical and front-line experts in health emergencies and health systems at global, regional and national levels to highlight the importance of and opportunities for embedding quality, with a strong focus on IPC, in linkages between health systems and health security in policy, planning and front-line services.
Under the TDDAP programme, the Regional Office, in close collaboration with headquarters, is developing a planning guide to support countries in developing health systems plans, policies and strategies. One of the key opportunities here is to provide guidance for countries on ways of integrating systems and security policy frameworks including quality considerations with a strong IPC infrastructure.

**Response to country cooperation requests for integrating IPC and quality work**

Taking the example of South Sudan and recognizing the comprehensive package of support that South Sudan needs, the WHO Regional Office for Africa, in collaboration with the Inter-country Support Team for East and Southern Africa, will conduct an in-depth health system scoping assessment in the country to identify starting points and detailed areas of need and develop a tailored framework to address the gaps and needs in the country, aligned with the emerging priorities identified in the technical workshop.

**Learning together**

The WHO Global Learning Laboratory for Quality UHC (15) links the experiences, expertise, passion and wisdom of people representing multiple disciplines across the world on important issues relating to quality in the context of UHC. The focus is on accelerating global learning, informed by local action on quality service delivery. One of the learning pods on the platform deals with IPC and WASH. Participants are invited to connect with the Global Learning Laboratory on all matters concerning quality and linkages with quality, so that they can continue to learn and share experiences related to the quality agenda with the rest of the world.
References


## Annex 1. List of participants

<table>
<thead>
<tr>
<th>Country participants</th>
<th>Information</th>
</tr>
</thead>
</table>
| Cameroon                                                  | Dr Roselyn Toby  
Médecin infectiologue, Ministère de la Santé Publique                      |
| Chad                                                      | Dr Tchombi Bertin  
Infectiologue, l’Hôpital Général de Référence National                   |
| Democratic Republic of the Congo                         | Dr Aron Aruna Abedi  
Directeur, Direction de la Lutte contre la Maladie                          |
| Democratic Republic of the Congo                         | Dr Aimé Bafuana Bavuidinsi  
Chargé d’Études et Questions Médicales, Cabinet MSP                         |
| Democratic Republic of the Congo                         | Mrs Chanty Monbo Sodi  
Expert hygiéniste, Direction de la Lutte contre la Maladie                   |
| Eritrea                                                   | Mr Ghilay Kahsay  
Unit Head, Quality Assurance and Infection Prevention                       |
| Eritrea                                                   | Sr Brikti Mehreteab  
Orotta Hospital                                                              |
| Eswatini                                                  | Mr Thabang Masangane  
Quality Assurance Officer, Ministry of Health                               |
| Ethiopia                                                  | Dr Yaregal Fufa Eaba  
Ethiopia Public Health Institute                                             |
| Ethiopia                                                  | Ms Aynalem Lagasse Asfaw  
Federal Ministry of Health                                                      |
| Guinea                                                    | Dr Fodé Badara Conte  
IPC Focal Point, Direction nationale des établissements hospitaliers et de l’hygiène sanitaire, Ministère de la Santé |
| Liberia                                                   | Dr Lekilay G. Tehmeh  
Clinical Coordinator, Quality Management Unit, Ministry of Health and Social Welfare |
| Sierra Leone                                              | Sr Christiana Agnes Conteh  
Infection Prevention and Control Unit, Ministry of Health and Sanitation       |
| South Sudan                                               | Dr Zacharia Afram Modi  
Director, Public Health and Environment, Ministry of Health                   |
<table>
<thead>
<tr>
<th>Country</th>
<th>Name</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uganda</td>
<td>Dr Amone Jackson</td>
<td>Commissioner of Health Services, Clinical Services, Ministry of Health</td>
</tr>
<tr>
<td>Uganda</td>
<td>Dr Okware Joseph</td>
<td>Commissioner of Health Services, Quality Assurance, Ministry of Health</td>
</tr>
<tr>
<td>Uganda</td>
<td>Dr Upenytho George</td>
<td>Consultant, Public Health, Ministry of Health</td>
</tr>
<tr>
<td>Uganda</td>
<td>Dr Allan Muruta</td>
<td>Assistant Commissioner, National Disease Control, Ministry of Health</td>
</tr>
<tr>
<td>Uganda</td>
<td>Dr Loice Kiime Kabyanga</td>
<td>Medical Officer, Bwera Hospital, Ministry of Health</td>
</tr>
<tr>
<td>Uganda</td>
<td>Ms Harriet Kembabazi</td>
<td>Principal Nursing Officer, Ministry of Health</td>
</tr>
<tr>
<td>Uganda</td>
<td>Ms Allison Doreen Nabawanuka</td>
<td>Principal Nursing Officer, Hoima, Ministry of Health</td>
</tr>
<tr>
<td>WHO Regional Office for Africa</td>
<td>Dr Niño Dal Dayanghirang</td>
<td>Technical Officer, Service Delivery Systems</td>
</tr>
<tr>
<td>Regional Office for Africa</td>
<td>Dr Ann Fortin</td>
<td>Technical Officer (Country Readiness), Emergency Operations</td>
</tr>
<tr>
<td>Regional Office for Africa</td>
<td>Dr Gertrude Avortri</td>
<td>Medical Officer, Service Delivery Systems, (Inter-country Support Team, East and Southern Africa)</td>
</tr>
<tr>
<td>Regional Office for Africa</td>
<td>Dr Pierre Claver Kariyo</td>
<td>Medical Officer, Service Delivery Systems, (Inter-country Support Team, Central Africa)</td>
</tr>
<tr>
<td>Regional Office for Africa</td>
<td>Dr Mekdim Ayana</td>
<td>Medical Officer, Health Systems and Services Unit, (Inter-country Support Team, West Africa)</td>
</tr>
<tr>
<td>WHO Country Office, Cameroon</td>
<td>Dr Samuel Besong</td>
<td>National Professional Officer</td>
</tr>
<tr>
<td>WHO Country Office, Ethiopia</td>
<td>Mrs Redda Seifeldin</td>
<td>IPC Consultant</td>
</tr>
<tr>
<td>WHO Country Office, Liberia</td>
<td>Dr April Baller</td>
<td>Technical Officer (Emergency Preparedness)</td>
</tr>
</tbody>
</table>
## Annex 1. List of participants

<table>
<thead>
<tr>
<th>WHO Country Office, Sierra Leone</th>
<th>Mrs Anna Maruta</th>
<th>Infection Control Specialist</th>
</tr>
</thead>
<tbody>
<tr>
<td>WHO Country Office, Uganda</td>
<td>Dr Yonas Tegegn</td>
<td>WHO Representative</td>
</tr>
<tr>
<td>WHO Country Office, Uganda</td>
<td>Mr Collins Mwesigye</td>
<td>National Professional Officer (Water Sanitation and Hygiene focal point)</td>
</tr>
<tr>
<td>WHO Country Office, Uganda</td>
<td>Dr Hafisa Kasule</td>
<td>National Professional Officer</td>
</tr>
</tbody>
</table>

### WHO Secretariat

<table>
<thead>
<tr>
<th>WHO headquarters</th>
<th>Dr Shams Syed</th>
<th>Coordinator</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Quality Systems and Resilience, Department of Service Delivery and Safety, UHC and Health Systems</td>
<td></td>
</tr>
<tr>
<td>Dr Benedetta Allegranzi</td>
<td>Coordinator</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Infection Prevention Control, Department of Service Delivery and Safety, UHC and Health Systems</td>
<td></td>
</tr>
<tr>
<td>Dr Sohel Saikat</td>
<td>Programme Officer</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Quality Systems and Resilience, Department of Service Delivery and Safety, UHC and Health Systems</td>
<td></td>
</tr>
<tr>
<td>Ms Nana Mensah Abrampah</td>
<td>Technical Officer</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Quality Systems and Resilience, Department of Service Delivery and Safety, UHC and Health Systems</td>
<td></td>
</tr>
<tr>
<td>Ms Zandile Zibwowa</td>
<td>Consultant</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Quality Systems and Resilience, Department of Service Delivery and Safety, UHC and Health Systems</td>
<td></td>
</tr>
<tr>
<td>Dr Anthony Twyman</td>
<td>Consultant</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Infection Prevention Control, Department of Service Delivery and Safety UHC and Health Systems</td>
<td></td>
</tr>
</tbody>
</table>
## Partners

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr Amir Kirolos</td>
<td>Health Adviser, Africa Regional Department, United Kingdom Department for International Development (DFID)</td>
</tr>
<tr>
<td>Dr Apollo Basenero</td>
<td>Chief Medical Officer, Quality Management Program, Namibia Ministry of Health and Social Services, Expert, International Society for Quality in Health Care (ISQua)</td>
</tr>
</tbody>
</table>
### Annex 2. Collated feedback on priorities from the group sessions

<table>
<thead>
<tr>
<th><strong>Group 1</strong></th>
<th><strong>Group 2</strong></th>
<th><strong>Group 3</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ERITREA</strong></td>
<td><strong>SIERRA LEONE</strong></td>
<td><strong>CHAD</strong></td>
</tr>
<tr>
<td>1. Structures at the national level – national team to drive IPC and quality – committee development at the national level</td>
<td>1. Partner coordination (multiple partners with Ministry of Health) (short term)</td>
<td>1. Effective implementation of IPC/ emerging disease activities in quality assurance programme strategies</td>
</tr>
<tr>
<td>2. Training and education of health workers</td>
<td>2. Dedicated IPC staff at subnational levels with career path (short term)</td>
<td>2. Hospital preparedness for an adequate health emergency response</td>
</tr>
<tr>
<td>3. Surveillance of health-care-associated infections needs strengthening</td>
<td>3. Rollout of standard operating procedures on aseptic procedures (short/medium term)</td>
<td>3. Improved attention to IPC and quality in the health information system (DHIS2)</td>
</tr>
<tr>
<td>4. Stakeholder engagement within the system alongside partners (understand and resolve problems)</td>
<td>4. Health-care-associated infections – implementation of measures to prevent surgical site infections in 2–3 health care facilities (short/medium term)</td>
<td>4. Improve prevention/ surveillance/ response capacity for emerging diseases</td>
</tr>
<tr>
<td></td>
<td>5. Quality – improving WASH in health care facilities (medium/long-term)</td>
<td>5. Ensure the supply and distribution of inputs and equipment for IPC and quality in care structures</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>SOUTH SUDAN</strong></th>
<th><strong>LIBERIA</strong></th>
<th><strong>DEMOCRATIC REPUBLIC OF THE CONGO</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Stakeholder mapping</td>
<td>1. Roll out new national IPC guidelines to all 850 health care facilities (short term)</td>
<td>1. Capacity building for care providers</td>
</tr>
<tr>
<td>2. Develop structures at the national level</td>
<td>2. Implementation of the 2018 national quality policy and strategy, with costing, including eJISS</td>
<td>2. Creation/ revitalization of hygiene committees in health structures</td>
</tr>
<tr>
<td>3. Advocacy efforts – making the case for IPC and quality</td>
<td>3. Surveillance of surgical site infections – pilot in one hospital (6 months), followed by phased national scale-up (short term)</td>
<td>3. Preparation of provinces (26) for the prevention of epidemics</td>
</tr>
<tr>
<td>5. Develop a range of necessary and agreed interventions with the necessary supporting guidelines to support the national direction (policy/ strategy)</td>
<td>5. Strengthening the monitoring and evaluation framework for IPC and quality, including incorporation into DHIS2 (medium term)</td>
<td>5. Adequate supplies and other necessary materials</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6. Integration of IPC and quality indicators in the national health information system (DHIS2)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7. Monitoring and evaluation</td>
</tr>
</tbody>
</table>
### Group 1
- **UGANDA**
  1. Focus on border districts (Ebola virus disease preparedness)
  2. IPC planning and re-organization
  3. Line manager accountability for quality
  4. Prioritize safety improvements
  5. Introduce quality improvement modules in all training (pre-service, in-service)
  6. Carry out simple assessment/survey on how IPC and quality improvement is being handled at different levels (short term)

### Group 2
- **ETHIOPIA**
  1. Improve WASH in health care facilities (medium term)
  2. Incorporate IPC and quality during outbreak response (short-term)
  3. Develop guidelines for surveillance (long term) of healthcare-associated infections and antimicrobial resistance
  4. To have a dedicated budget for IPC and quality (short term)
  5. IPC and quality capacity building (short to medium term) – regional / cross-cutting

### Group 3
- **CAMEROON**
  1. Set up national IPC programme
  2. Shift mindset towards changing the system to facilitate the implementation of IPC including investment and provision of necessary funds
  3. Effective awareness of health personnel and proper understanding of IPC problems by all concerned ministerial departments
  4. Ensure the supply and distribution of inputs and equipment for IPC and quality in the structures of care

### Group 1
- **ESWATINI**
  1. Strengthen coordination between IPC and quality
  2. Advocacy
  3. Curriculum development – pre-service (IPC and quality)
  4. Establish/upgrade preparedness effort with isolation units as required
  5. Strengthen surveillance for health-care-associated infections

### Group 2
- **GUINEA**
  1. Diploma in IPC and/or hospital hygiene
  2. Creation of hygiene services in hospitals
  3. Supervision and regular evaluation of IPC and quality
  4. Contractualization of care structures
  5. Integration of performance-based financing in health care structures
  6. Accreditation of care structures
  7. Ensure supply and distribution of inputs and equipment for IPC and quality in the structures of care
Annex 3. Country snapshots

Cameroon

Governance structures for IPC and quality

- There is no governance arrangement for IPC or quality:
  - activities cut across national programmes within the Ministry of Health.

Policy framework for IPC and quality programmes

- IPC activities are transversal in national programmes and technical divisions of the Ministry of Health, with no dedicated policy on quality or IPC. Other efforts to inform practices include:
  - prevention activities organized within disease-specific programmes;
  - health sector strategy – contains some IPC components that are embedded under antimicrobial resistance;
  - a national plan on antimicrobial resistance coordinated by the National Public Health Laboratory, in which IPC is listed as a priority action in the third strategic objective;
  - the hospital reform law, which considers the quality standard under health infrastructures;
  - quality is becoming a core component in most of the existing public health programmes, e.g. HIV/AIDS, laboratory network;
  - IPC core components are implemented in emergency situations only as IPC guidelines/standard operating procedures in specific situations and widespread training of health personnel in infection control measures etc. – no routine approach in non-emergency periods.

Linkages between quality and other programmes, including health emergencies

- National action plan for antimicrobial resistance includes IPC activities e.g. IPC programme, guidelines, training, laboratory strengthening.
- General preparedness approach to public health threats:
  - Ebola training for rapid response teams;
  - construction of an emergency operations centre to improve the response to public health emergencies;
  - cholera response with respect to WASH and IPC;
  - international forum on public health emergencies, with some focus sessions on IPC and WASH.
- Capacity development with IPC elements is mainly conducted during training of health-care workers on preparedness for epidemics. There is no real focus on quality.
Barriers and enablers

Barriers:
- no dedicated national programme (or national direction for IPC and quality) for overall coordination and leadership;
- no budget for implementing IPC and quality measures;
- no IPC modules or training curricula in vocational schools for health workers;
- low awareness of quality concepts.

Enablers:
- political will and commitment (e.g. in the sectoral health strategy there are two programmes with some IPC elements and the One health approach, with multisectoral involvement);
- support from partners (WHO, UNICEF (WASH));
- capacity-building system during preparedness situations.

Key priorities

- Set up national coordination of IPC programme.
- Shift mindsets towards changing the system to facilitate the implementation of IPC, including investment and provision of necessary funds.
- Effective awareness of health personnel and proper understanding of IPC and quality by all concerned ministerial departments.
- Ensure effective supply and distribution of inputs/equipment.

Chad

Governance structures for IPC and quality

- Recent national multisectoral approach to quality and IPC, but remains limited within Government structures.
- Development for national health policy as part of 2030 vision.

Policy framework for IPC and quality programmes

- No explicit IPC components, but national action plan on antimicrobial resistance takes into account aspects of IPC and quality.

Barriers and enablers

Barriers:
- limited movement despite recent adoption of a national approach to quality and IPC
- specific technical programmes operate independently
- lack of implementation of IPC and quality work
- lack of integration or multisectoral approach to IPC and quality
• little integration with the wider community
• health services do not respond to the needs of the population.

Enablers:
• political engagement
• functional integrated disease surveillance and response system for surveillance
• vision for health policy in development as part of plans for 2030
• advanced laboratory diagnostics.

Key priorities
• Effective implementation of IPC and infectious disease activities in pregnancy/ emerging diseases/ quality assurance programme strategies.
• Hospital preparedness for an adequate health emergency response.
• Improved attention to IPC and quality in the health information systems (DHIS2).
• Prevention, surveillance and response capacity for emerging diseases almost non-existent.
• Ensure the supply and distribution of inputs and equipment for IPC and quality in care structures.

Democratic Republic of the Congo

Governance structures for IPC and quality
• Before the 2017 reform, quality of care was entrusted to the Fifth Directorate of the Ministry of Health, without much consideration being given to IPC.
• Currently, IPC is provided by two directorates:
  • Directorate of Hygiene and Public Sanitation (IPC)
  • Directorate of Health Facilities (quality).
• However, the two directorates are under the supervision of different Directorates-General: the Directorate General of Disease Control (DGLM), which governs the way IPC is implemented, and the Directorate General of Health Services Organization (DGOS) that oversees quality strategies.

Policy framework for IPC and quality programmes
• No data collection for IPC.
• No national policy, plan or guidelines exist for IPC or quality.

Linkages between quality and other programmes, including health emergencies
• A staff briefing on IPC and triage/screening.
• Making IPC kits available.
• Partner coordination:
  • example: Ebola response in North Kivu and cholera (Kasai).
• During epidemics, the Ministry of Public Health organizes key IPC activities with the support of technical and financial partners.
Barriers

• Barriers:
  • insufficient health sector funding
  • no national programme to integrate IPC and quality directives
  • insufficient health staff trained in IPC and quality
  • vulnerability of the system (inadequate structures, etc.)
  • insecurity in the eastern part of the country
  • traditional customs (resistance during the response to epidemics).

Key priorities

• Implementation of the National Plan for Regulated Sanitary Development 2016–2020, integrating:
  • capacity building for care providers;
  • creation or revitalization of hygiene committees in health facilities;
  • preparedness of the 26 provinces for the prevention of epidemics;
  • construction or renovation to create adequate health facilities;
  • adequate supplies and other necessary materials;
  • integration of IPC and quality indicators into the national health information system (DHIS2);
  • monitoring and evaluation.

Lessons to share

• An effective coordination system under the leadership of the Ministry of Public Health, with the commissions including a WASH/IPC and biosafety officer.
• A good triage system and IPC succeeded in limiting disease transmission during the Ebola virus outbreak (Equateur province, May–July 2018).
• Capitalize on lessons learned from the past outbreaks of Ebola virus disease to inform future IPC practices.

Eritrea

Governance structures for IPC and quality

• IPC/quality assurance unit exists under the Division of Nursing Services (Department of Medical Services), but is in need of strengthening.

Policy framework for IPC and quality programmes

• Health sector strategic development plan 2012–2016.
• IPC and quality programme – not equally strong at all levels of the system.
• No clear indicators to measure quality or IPC at all levels of health facilities.
• Development of national IPC guidelines is in progress.
Linkages between quality and other programmes, including health emergencies

- There is good coordination among the divisions of pharmacy and quality/IPC unit to monitor antimicrobial resistance; environmental health, IPC planning and managing health-care workers and WASH activities; the maternal, newborn and child health division works collaboratively with the IPC/quality unit to monitor the health-care-associated infections and surgical site infection following caesarian section.
- A national 2018 IPC guideline is being developed in collaboration with these divisions, with the support of the WHO country office.

Barriers and enablers

- Challenges:
  - minimal or no surveillance system for IPC to show the current status of quality and IPC (rates of health-care-associated infections and antimicrobial resistance);
  - poor information transfer from facility level to national level on the current state of IPC and quality;
  - there are no clear indicators to measure quality and IPC in health facilities;
  - inconvenient building structures and equipment for IPC activities in facilities (e.g. incinerators, placenta pits, sterilizing equipment).
- Enablers:
  - strong Government commitment to health-related activities;
  - strong linkages and coordination with stakeholders and divisions such as Pharmacy and the national health laboratory;
  - continuous surveillance (monitoring and reporting of infectious diseases, weekly and monthly).

Key priorities

- Strengthening quality and IPC surveillance systems at all levels, particularly surveillance of health-care-associated infections.
- Training and education of health workers in implementation of IPC practices in the various health zones.
- Development of quality and IPC indicators in line with WHO standards.
- Incorporating quality and IPC training within the curriculum of the local colleges of health science.
- Structures at the national level – national team to drive IPC and quality, committee development at the national level.
- Stakeholder engagement within systems involving partners (understand and resolve problems).

Lessons to share

- IPC committees formed in the hospitals.
- In referral hospitals, surgical site infections are recorded and monitored, and drug sensitivity tests are done as ordered by physicians.
- Satisfactory coordination and collaboration with stakeholders in IPC planning, development of guidelines and procurement of IPC materials, including machine for producing chlorine bleach.
Eswatini

Governance structures for IPC and quality

- National quality management programme under the Deputy Director of Public Health, Ministry of Health.
- Secretariat with officer coordinating quality activities, national core team, regional quality management team and health facility focal points for quality assurance.
- IPC is not a stand-alone programme and is housed under the national quality management programme, with a national focal point.
- Functional national IPC technical working groups with members from Ministry of Health and the tuberculosis-specific IPC programme.
- Regional IPC structures remain a challenge, and health facilities have IPC focal points and committees that work in collaboration with quality assurance focal points.

Policy framework for IPC and quality programmes

- National IPC guidelines are under review in order to reflect WHO recommendations from 2016.
- TB specific IPC guidelines.

Linkages between quality and other programmes, including health emergencies

- Antimicrobial resistance included in IPC guidelines.
- Implementation of a set of health standards including some provisions on IPC and quality. These include training of health workers in IPC, periodic IPC audits and a quarterly quality assurance summit.
- Liaison in disease notification and surveillance, disease outbreaks and response in health emergencies.

Barriers and enablers

- Barriers:
  - weak regional presence of IPC teams, no designated IPC focal point at regional level
  - no specific budget for IPC, with most funds coming from development partners
  - inadequate supportive supervision.
- Enablers:
  - all tools have components on quality and IPC;
  - IPC is integrated with quality management;
  - members of IPC technical working group are also members of health facility quality assurance team;
  - quality-of-care audits conducted by multidisciplinary teams.
Key priorities and opportunities
• Priorities:
  • IPC budget consistent with needs
  • strengthen coordination between IPC and quality to support health facilities
  • curriculum development for pre-service (IPC and quality) training
  • train health-care workers on IPC tools, protocols and standards
  • create a post of national IPC focal point
  • strengthen surveillance system for health-care-associated infections.
• Opportunities:
  • tap into external resources to train health-care workers and obtain relevant materials to complete review of IPC guidelines and expertise to formulate national IPC plan;
  • benchmarking for IPC.

Lessons to share
• Approach to the integration of IPC and quality:
  • national quality management programme
  • health facility quality assurance teams have an IPC focal point
  • quality-of-care audit tools
  • monitoring and evaluation tools.

Ethiopia

Governance structures for IPC and quality
• National quality improvement directorate.
• Quality improvement units at regional/zonal and health facility levels.

Policy framework for IPC and quality programmes
• National health-care quality strategies:
  • develop an integrated approach to planning, improving and controlling quality;
  • drive improvement in quality by explicitly linking UHC strategy with quality;
  • activate key constituencies, particularly to motivate the workforce, build leadership across all levels and activate the patient and community demand for quality;
  • support strong data systems and feedback loops as the “backbone” of all services.
• The health sector transformation plan has four national agendas implemented across all health sectors, with quality and equity as one of the four.
• The national IPC programme is led by a focal point under the clinical directorate.
• The third edition of the national IPC guidelines is under development.
• One chapter of the hospital service transformation guidelines covers IPC, including 15 standards which are implemented in all hospitals.
• Training in quality improvement and IPC is provided at health facility level by the Ministry of Health and partners.
Linkages between quality and other programmes, including health emergencies
- IPC is usually incorporated into outbreak response training, facility monitoring, supportive supervision, etc.

Barriers and enablers
- Barriers:
  - lack of IPC specialists in health facilities
  - no surveillance of health-care-associated infections
  - lack of a dedicated budget
  - high turnover of trained professionals.
- Enablers:
  - national quality improvement flagship initiatives such as the Clean and Safe Health Facilities Initiative, Health Sector Transformation in Quality, Health Sector Transformation Guidelines, Ethiopia Hospital Alliance for Quality.
  - continuous support from partners.

Key priorities
- Improve WASH in health care facilities.
- Incorporate IPC and quality work into outbreak responses.
- Develop guidelines for surveillance of health-care-associated infections and antimicrobial resistance.
- Assign a dedicated budget to IPC and quality work.
- Ensure capacity building for IPC and quality – regional and cross-cutting.

Lessons to share
- Standards outlined at the national level for the technical programmes:
  - IPC/patient safety has 15 standards
  - all standards make up the quality improvement directorate reporting on quality.
- Quality improvement and IPC training are provided at health facility level.
- IPC is linked to emergencies through the public health emergency management system.

Guinea

Policy framework for IPC and quality programmes
- Three major IPC/quality indicators:
  - volume of use of alcohol-based hand rub
  - surgical site infections
  - point prevalence of health-care-associated infections.

Linkages between quality and other programmes, including health emergencies
- Technical programmes are organized vertically, but the relevant committee aims to coordinate activities and integrate with quality where possible.
• Isolation units constructed within prefectures.
• Integration of IPC and quality: legal framework/regulation for access to quality health services and implementation of IPC and quality within the health facility.

**Barriers and enablers**

• **Barriers:**
  • budget
  • lack of supplies
  • waste management practices
  • health structures not meeting standards.

• **Priorities:**
  • diploma in IPC and/or hospital hygiene;
  • creation of hygiene services in hospitals;
  • supervision and regular evaluation of the IPC and quality work;
  • contractualization of care structures;
  • integration of performance-based financing in health care structures;
  • accreditation of care structures;
  • ensuring the supply and distribution of inputs and equipment for IPC and quality in care structures.

**Lessons to share**

• A population-based approach to training during emergencies.

**Liberia**

**Governance structures for IPC and quality**

• Quality management unit (QMU) at the Ministry of Health, under the Bureau of Curative Services.
• IPC embedded in the quality management unit with the national IPC coordinator and assistant IPC coordinator.
• Quality management teams at national, county, district and health facility levels.

**Policy framework for IPC and quality programmes**

• National IPC guidelines and national quality strategy.
• The National Health and Social Welfare Policy and Plan 2011–2021 made UHC a priority and identified access to and utilization of safe and quality health services as part of the quality mandate.
• Protocol for surveillance of health-care-associated infections developed with a pilot project to begin soon at one hospital.
Linkages between quality and other programmes, including health emergencies

- IPC programmes are linked with various programmes and activities:
  - established linkages with antimicrobial resistance, quality/safety, WASH, tuberculosis, HIV, immunization, maternal, child and adolescent health, mental health, national health laboratory;
  - integrated with epidemic preparedness and response activities to increase isolation capacity;
  - national action plan for antimicrobial resistance launched in 2018.
- Dedicated focal points at hospitals to ensure compliance with guidelines during outbreaks.

Barriers and enablers

- Barriers:
  - constant stockouts of IPC supplies;
  - no dedicated budget for IPC programmes;
  - inefficient pharmaceutical or supply chain system;
  - human resource challenges and lack of understanding of key quality concepts among health-care workers.
- Enablers:
  - Government policy guidance and commitment to IPC and quality
  - continued commitment from donors
  - the current strategy to link IPC and quality to performance-based financing.

Key priorities

- Roll out new guidelines to all counties and health facilities across the country.
- Incorporate guidelines into pre-service, pre-graduate and postgraduate training.
- Pilot and scale up surveillance of health-care-associated and surgical site infections at major hospitals.
- Ensure adequate IPC supplies to support implementation.
- Implementation of the 2018 national quality policy and strategy, including eJISS.
- Expand linkages with other programmes (laboratory, community, neglected tropical diseases, noncommunicable diseases, etc.).
- Incorporate IPC concepts into the curriculum for health workers.
- Strengthen the monitoring and evaluation framework for IPC and quality, including integration into DHIS2.

Lessons to share

- Ownership and strong leadership are key factors.
- Strong linkage between IPC/quality and emergency preparedness and response; strong partnerships.
- A decentralized approach to implementing IPC and quality work.
Sierra Leone

Governance structures for IPC and quality

- National IPC unit led by Ministry of Health and Sanitation, National IPC Coordinator, IPC Advisory Committee, district IPC committees, hospital IPC committees and focal points based at peripheral health units.
- IPC unit operates under the Directorate of Health Security and Emergencies, but no designated directorate for quality.
- National IPC Coordinator is responsible for overall coordination and leadership, development, implementation and evaluation of the national IPC programme.

Policy

- Quality is part of the National Health Sector Strategic Plan (strategic objective 3).
- National IPC policy, guidelines and pocket handbooks.
- National IPC/WASH assessment tool.
- Three-year national action plan for IPC.

Linkages between quality and other programmes, including health emergencies

- Dedicated IPC focal points in all health facilities and dedicated district IPC supervisors in all districts.
- IPC is part of all national and district rapid response teams and IPC participates in simulation exercises.
- Isolation units available in each district.
- Linked to antimicrobial resistance action plan and national action plan for health security.
- Rapid improvement model – accelerated quality improvement concept to monitor quality in IPC implementation.

Barriers and enablers

- Barriers:
  - funding gap: no dedicated budget for IPC from Ministry of Health
  - inadequate microbiology support, lack of skilled health workers
  - inertia hampering behaviour change among health-care workers
  - limited WASH infrastructure.
- Enablers:
  - facility managers’ commitment to the IPC programme;
  - strong technical support from WHO, United States Centers for Disease Control and Prevention and other partners;
  - isolation capacity in all districts;
  - IPC programme now under the Directorate of Health Security and Emergencies;
  - linkages between the IPC unit and other health programmes.
Key priorities

- Leadership: Ministry of Health ownership and leadership, personal commitment, adequate budget.
- Dedicated IPC staff at subnational levels, with a career path.
- Partner coordination (multiple partners with Ministry of Health).
- IPC implemented within the framework of quality improvement to make it sustainable with IPC integrated into all health-care delivery programmes.
- The inclusion of IPC in the pre-service training curriculum.
- Rollout of standard operating procedures for aseptic procedures.
- Health-care-associated infections – implementation of measures to prevent surgical site infections in 2–3 health care facilities.

Lessons to share

- To avert future outbreaks, there is a need for dedicated and trained health-care workers, Ministry of Health ownership and partner coordination, WASH infrastructure and adequate IPC supplies.

South Sudan

Governance structures for IPC and quality

- No formal IPC or quality structure present.
- The Department of Environmental Health at the Ministry of Health would receive and deal with IPC issues.
- The office that deals with quality issues comes under the Directorate of Policy, Planning and Budgeting.

Policy framework for IPC and quality programmes

- No national plan or guidelines on IPC or quality.
- The national health policy includes some provisions for quality of care:
  - Objective 2: quality and safety of the Basic Package of Health and Nutrition Services;
  - Objective 3: quality of secondary care;
  - Objective 4: infrastructure for quality and safety.

Linkages between quality and other programmes, including health emergencies

- A standard operating procedure for IPC in Ebola virus disease is currently under review and will be adopted soon.
Key priorities

- There is no formal IPC or quality management structure or programmes at the national level.
- Comprehensive assessment – situational analysis (state of quality/safety/IPC/WASH) and stakeholder mapping.
- Develop a range of necessary agreed interventions with the necessary supporting guidelines to support the national direction (policy/strategy).
- Advocacy efforts – up to now, the Ministry of Health has not worked specifically in the technical areas of IPC or quality.
- Some aspects of quality in the national health plan, but no IPC considerations.
- Leverage knowledge gained and lessons learned from other countries at the workshop to develop IPC and quality programmes and policies.

Uganda

Governance structures for IPC and quality

- National IPC and quality improvement committees. Quality assurance department is responsible for quality improvement initiatives, while IPC responsibilities are shared between the quality assurance, clinical and national disease control departments.
- Quality improvement is coordinated at the national, regional, district and health facility level. IPC teams are present at the national and facility level.
- Quality improvement coordination structures are in place, although they are weak.

Policy framework for IPC and quality programmes

- Quality and safety improvement is an objective of the Health Sector Development Plan 2019/20.
- The second Health Sector Quality Improvement Framework and Strategic Plan are being implemented.
- Infection control teams are present at all health facilities.

Barriers and enablers

- Barriers:
  - insufficient evidence of how widespread harmful care is; underutilization of data to define priorities and track progress in IPC and quality work;
  - resources are currently allocated to disease-specific improvements;
  - lack of a clear set of quality indicators for different levels of the health system;
  - insufficient skills on the part of quality management specialists to implement cost-effective interventions.
Strengthening infection prevention and control and quality in health care for resilient health services

• Enablers:
  • quality assurance and inspection upgraded from a department to a directorate, which provides an additional mandate and resources (human and financial);
  • support from partners for quality improvement and IPC initiatives;
  • mechanism in place for the periodic assessment of the quality of care in health facilities (Health Facility Quality of Care Assessment Program);
  • service availability and readiness assessments conducted annually and semi-autonomous professional councils in place that address accreditation, registration and licensing of health facilities.

Key priorities
• Focus on border districts (Ebola virus disease preparedness).
• Prioritize safety improvements: conduct audits and patient safety studies and conduct both simple and more complex, longer assessments of inappropriate/harmful medical care.
• Improve general management and supervision at each level of the health system.
• Introduce quality improvement modules in all training curricula (pre-service, in-service).
• Carry out a simple assessment or survey on the way IPC and quality improvement is being handled at different levels (short term).
• Emphasis on line managers to account for quality (short term).

Lessons to share
• Have a common understanding of quality terminologies (e.g. quality improvement, quality control).
• Need for a country quality improvement framework and strategic plan.
• Need for a common approach to improving science and a method for measuring quality.
• Adopt a system quality improvement approach rather than a disease-specific approach.
## Annex 4. Programme of work

<table>
<thead>
<tr>
<th>Time</th>
<th>Tuesday 23 October 2018 – Day 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.30–9.00</td>
<td>Registration</td>
</tr>
<tr>
<td>9.00–9.40</td>
<td>Welcome and opening remarks</td>
</tr>
<tr>
<td></td>
<td>WHO Representative, Uganda, Dr Yonas Tegegn</td>
</tr>
<tr>
<td></td>
<td>Dr Joseph Okware, Commissioner (Quality Assurance and Inspection), Ministry of Health, Uganda</td>
</tr>
<tr>
<td></td>
<td>UK Department for International Development (DFID), Dr Amir Kirolos (afternoon)</td>
</tr>
<tr>
<td></td>
<td>Moderator: Dr Jackson Amone, Commissioner (Clinical Services), Ministry of Health, Uganda</td>
</tr>
<tr>
<td>9.40–10.00</td>
<td>Introduction and objectives</td>
</tr>
<tr>
<td></td>
<td>(TDDAP health systems and health security joint working, significance for IPC and quality in the context of emergencies)</td>
</tr>
<tr>
<td></td>
<td>Presenter: Dr Sohel Saikat</td>
</tr>
<tr>
<td></td>
<td>Agenda, objectives, expected outcomes</td>
</tr>
<tr>
<td></td>
<td>Scene setting on resilience – key concepts</td>
</tr>
<tr>
<td></td>
<td>Moderator: Dr Jackson Amone, Commissioner (Clinical Services), Ministry of Health, Uganda</td>
</tr>
<tr>
<td>10.00–10.45</td>
<td>Group photograph, UNDSS security briefing and tea break</td>
</tr>
<tr>
<td>10.45–11.15</td>
<td>Quality: key concepts and directions (including importance of tackling infectious diseases)</td>
</tr>
<tr>
<td></td>
<td>Presenter: Dr Shams Syed, WHO headquarters/SDS</td>
</tr>
<tr>
<td></td>
<td>Moderator: Dr Apollo Basenero, ISQua</td>
</tr>
<tr>
<td>11.15–11.45</td>
<td>Infection prevention and control (IPC): key concepts and directions (including importance in tackling infectious diseases)</td>
</tr>
<tr>
<td></td>
<td>Presenter: Dr Benedetta Allegranzi, WHO headquarters/SDS</td>
</tr>
<tr>
<td></td>
<td>Moderator: Dr Zacharia Afram Modi, Director, Public Health and Environment, South Sudan</td>
</tr>
<tr>
<td>11.45–12.15</td>
<td>IPC and quality in the context of health emergencies</td>
</tr>
<tr>
<td></td>
<td>Presenter: Dr Ann Fortin, WHO Health Emergencies Programme, WHO Regional Office for Africa</td>
</tr>
<tr>
<td>12.15–12.45</td>
<td>Regional and country experiences from recent outbreaks in relation to quality and IPC</td>
</tr>
<tr>
<td></td>
<td>Presenter: Dr Nino Dayanghirang, Dr Pierre Kariyo, Dr Gertrude Avortri, Dr Mekdim Ayana</td>
</tr>
<tr>
<td></td>
<td>Moderator: Dr Aron Aruna Abedi, Directeur, Direction de Lutte contre la Maladie, Democratic Republic of the Congo</td>
</tr>
<tr>
<td>Time</td>
<td>Event</td>
</tr>
<tr>
<td>--------------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>12.45–14.00</td>
<td>LUNCH</td>
</tr>
</tbody>
</table>
| 14.00–14.30  | Current capacity and capability in IPC and quality in the African Region  
|              | Presenters: Zandile Zibwowa and Anthony Twyman                        
|              | Moderator: Dr Benedetta Allegranzi, WHO headquarters/SDS             |
| 14.30–14.45  | A water, sanitation and hygiene (WASH) perspective                    
|              | Presenter: Collins Mwesigye, WASH focal point WHO Country Office, Uganda 
|              | Moderator: Dr Benedetta Allegranzi, WHO headquarters/SDS             |
| 14.45–15.00  | Tea break                                                            |
| 15.00–17.30  | Country perspectives 1:                                              
|              | Presenters: Eritrea, Liberia, South Sudan, Eswatini, Uganda          
|              | Moderator: Dr Gertrude Avortri, IST East and Southern Africa         |
| 17.30        | Close                                                                |
|              | END OF DAY 1                                                         |

**Wednesday 24 October 2018 – Day 2**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
</table>
| 08.30–08.45  | Recap: Summary of country, regional and global perspectives          
|              | Presenter: Nana Mensah Abrampah WHO headquarters/QSR                |
| 8.45–9.00    | Opening remarks from the United Kingdom Department for International Development (DFID)  
|              | Presenter: Dr Amir Kirolos                                         
|              | Moderator: Dr Sohel Saikat                                          |
| 9.00–9.15    | Partner perspectives: ISQua                                          
|              | Presenter: Dr Apollo Basenero, ISQua                               
|              | Moderator: Mrs Anna Maruta                                          |
| 9.15–9.30    | Country perspectives 2:                                              
|              | Presenters: Cameroon, Chad, Democratic Republic of the Congo, Guinea, Sierra Leone, Ethiopia  
|              | Moderator: Dr Pierre Kariyo, IST, CA                                |
| 9.30–10.45   | Continued Q and A country presentations (Day 1 and Day 2)            
|              | Moderators: Dr Mekdim Ayana, Dr Gertrude Avortri, Dr Pierre Kariyo  |
| 10.45–11.00  | Tea break                                                            |
| 11.00–11.15  | Introduction to breakout group sessions                             
<p>|              | Nana Mensah Abrampah and Anthony Twyman                             |</p>
<table>
<thead>
<tr>
<th>Time</th>
<th>Wednesday 24 October 2018 – Day 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.15–13.00</td>
<td>Group 1</td>
</tr>
<tr>
<td></td>
<td>Focus countries – Eritrea, South Sudan, Uganda, Eswatini</td>
</tr>
<tr>
<td></td>
<td>Moderator: Dr Gertrude Avortri</td>
</tr>
<tr>
<td></td>
<td>Resource person: Dr Shams Syed</td>
</tr>
<tr>
<td>11.15–13.00</td>
<td>Group 2</td>
</tr>
<tr>
<td></td>
<td>Focus countries – Chad, Guinea, Democratic Republic of the Congo, Cameroon</td>
</tr>
<tr>
<td></td>
<td>Moderator: Dr Pierre Kariyo</td>
</tr>
<tr>
<td></td>
<td>Resource person: Dr Benedetta Allegranzi</td>
</tr>
<tr>
<td>11.15–13.00</td>
<td>Group 3</td>
</tr>
<tr>
<td></td>
<td>Focus countries – Ethiopia, Liberia, Sierra Leone</td>
</tr>
<tr>
<td></td>
<td>Moderator: Dr Medkim Ayana</td>
</tr>
<tr>
<td></td>
<td>Resource person: Dr Sohel Saikat</td>
</tr>
<tr>
<td>13.00–14.00</td>
<td>Lunch</td>
</tr>
<tr>
<td>14.00–15.30</td>
<td>Feedback from groups:</td>
</tr>
<tr>
<td></td>
<td>Group 1</td>
</tr>
<tr>
<td></td>
<td>Group 2</td>
</tr>
<tr>
<td></td>
<td>Group 3</td>
</tr>
<tr>
<td></td>
<td>Moderator: Dr Amir Kirolos</td>
</tr>
<tr>
<td>15.30–16.00</td>
<td>Tea break</td>
</tr>
<tr>
<td>16.00–17.30</td>
<td>Plenary discussions from group presentations</td>
</tr>
<tr>
<td></td>
<td>Moderator: Dr Amir Kirolos</td>
</tr>
<tr>
<td>17.30</td>
<td>Close</td>
</tr>
<tr>
<td></td>
<td>END OF DAY 2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Time</th>
<th>Thursday 25 October 2018 – Day 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>09.00-09.15</td>
<td>Recap and day’s objectives</td>
</tr>
<tr>
<td></td>
<td>Presenter: Dr Nino Dayanghirang</td>
</tr>
<tr>
<td>9.15-10.15</td>
<td>Discussion to look at group findings and recommendations</td>
</tr>
<tr>
<td></td>
<td>Facilitator: Dr Sohel Saikat</td>
</tr>
<tr>
<td>10.15-10.45</td>
<td>Tea break</td>
</tr>
<tr>
<td>10.45-11.30</td>
<td>Discussion: options to look at in prioritization, alignment and integration</td>
</tr>
<tr>
<td></td>
<td>Facilitator: Dr Sohel Saikat</td>
</tr>
<tr>
<td>Time</td>
<td>Thursday 25 October 2018 – Day 3</td>
</tr>
<tr>
<td>-------------</td>
<td>-------------------------------------------------------</td>
</tr>
<tr>
<td>11.30–11.45</td>
<td>Next steps and wrap-up</td>
</tr>
<tr>
<td></td>
<td>Presenter: Dr Shams Syed</td>
</tr>
<tr>
<td>11.45–12.00</td>
<td>Closing remarks</td>
</tr>
<tr>
<td></td>
<td>Presenters: Ministry of Health Uganda, WHO Country Office Uganda, African Region ISTs</td>
</tr>
<tr>
<td>12.00–13.00</td>
<td>Lunch</td>
</tr>
</tbody>
</table>

END OF WORKSHOP

## Annex 5. Linkages between quality and infection prevention and control

<table>
<thead>
<tr>
<th>Elements of national quality policy and strategy</th>
<th>IPC core components – national only</th>
<th>Recommendations for integration</th>
</tr>
</thead>
<tbody>
<tr>
<td>National health priorities (1)</td>
<td>IPC programme (CC1)</td>
<td>IPC programmes should be aligned with existing national health priorities as well as the national definition of quality. Given the fundamental importance of IPC, countries should consider quality-specific national goals related to IPC. Where countries have developed a national direction on quality, active national IPC programmes with clearly defined objectives, functions and activities should be aligned with the national quality policy and strategy to ensure an integrated, rather than vertical, approach.</td>
</tr>
<tr>
<td>Local definition of quality (2)</td>
<td>IPC guidelines (CC2)</td>
<td>An active, national IPC programme with dedicated IPC specialist staff and budget and clearly defined objectives, functions and activities should be established for the purpose of preventing health-care-associated infections and combating antimicrobial resistance through good practices in IPC. This programme should be linked to existing national quality governance arrangements and strategic approaches.</td>
</tr>
<tr>
<td>Stakeholder mapping and engagement (3)</td>
<td></td>
<td>It is important to outline a proposed governance structure/mechanism that integrates IPC programmes within structures supporting the implementation of quality health services. Where countries have had experience in IPC, outline how existing structures and functions can be leveraged to support overall quality efforts. Outline accountability mechanisms at all levels of the health system.</td>
</tr>
<tr>
<td>Governance and organizational structure (5)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 Numbers in this column refer to the eight recommended elements of national quality policy and strategy (3).  
2 Numbers in this column refer to the eight core components of infection prevention and control programmes, recommended by WHO (2).
Strengthening infection prevention and control and quality in health care for resilient health services

<table>
<thead>
<tr>
<th>Elements of national quality policy and strategy¹</th>
<th>IPC core components – national only²</th>
<th>Recommendations for integration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Situational analysis (4)</td>
<td></td>
<td>Carefully map and engage all stakeholders involved in quality work in the country and ensure the right people (including IPC workers) are involved in the policy, programme and strategy development process, with a strong focus on community engagement.</td>
</tr>
<tr>
<td>Health management information systems and data systems (7)</td>
<td>Surveillance of health-care-associated infections (CC4)</td>
<td>Evidence-based guidelines, grounded in country experience, should be developed and implemented to improve the overall quality of health services (including reducing health-care-associated infections and antimicrobial resistance), in line with the current understanding of quality issues by both the provider and the user of health services.</td>
</tr>
<tr>
<td>Quality indicators and core measures (8)</td>
<td>Monitoring, audit and feedback (CC6)</td>
<td>Undertake a comprehensive situational analysis detailing key aspects of the state of health-care quality in the country concerned. The situational analysis should include a focus on IPC, using specific approaches/tools that are available in the context of implementation of the WHO-recommended IPC core components. The situation analysis can include a review of data from multiple sources and across all levels, contextual factors and historical quality data.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Quality measurement – through the use of standardized indicators – allows health-care providers and policy-makers to assess progress on quality across all levels of health care: national, regional, facility and individual. Quality measurement should encompass key indicators of safety, including IPC.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Measurement of hand hygiene practices and infrastructure is strongly recommended as part of the core components for IPC implementation. Indicators capturing this key component are reflected in tools and resources such as the service availability and readiness assessment, the Water and Sanitation for Health Facility Improvement Tool (WASH FIT) and WHO IPC assessment tools. Countries aiming to improve the quality of care often have an indicator on hand hygiene.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Surveillance data are needed to guide the development and implementation of effective control interventions. For IPC and quality integration, efforts relating to national surveillance systems and networks for health-care-associated infections can be utilized to inform overall measurement efforts.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Measurement systems should not merely incorporate a collection of indicators, but should enable the provision of timely feedback to providers and professionals on performance in relation to quality and IPC practices, to inform continuous improvement.</td>
</tr>
</tbody>
</table>
### Annex 5. Linkages between quality and infection prevention and control

<table>
<thead>
<tr>
<th>Elements of national quality policy and strategy</th>
<th>IPC core components – national only</th>
<th>Recommendations for integration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measurement efforts should be linked with health management information systems and other relevant data systems and surveillance. Data, backed by adequate information management systems, are essential in planning and implementing the integration of programmes, policy and strategy.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improvement methods and interventions form the basis of an implementation plan aimed at improving the quality of health services. Improvement methods and interventions can be grouped into four categories: system environment (includes IPC education and training); reducing harm (under which the majority of IPC protocols fall); improvements in clinical care; and patient, family and community engagement and empowerment.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The use of multimodal strategies in IPC has been shown to be the best evidence-based approach to achieve sustained behavioural change for the implementation of IPC interventions. It is “the” way to achieve the system change, climate and behaviour that support IPC progress and, ultimately, the measurable impact that benefits both patients and health-care workers.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The WHO multimodal strategy comprises five elements, commonly listed as (1) system change; (2) training and education; (3) monitoring and feedback; (4) reminders and communications; and (5) a culture of safety. These elements are meant to be implemented in an integrated way to guide action and provide a clear focus for the implementer. Implementation of IPC multimodal strategies needs to be linked with the aims and initiatives of quality improvement programmes and external evaluation and accreditation mechanisms, at both national and health facility levels.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specific interventions looking at improving safety through IPC should be coordinated and feed into the overall prioritization list of interventions to support implementation to improve quality service delivery at the national and subnational level.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>This is an iterative and evolving process, requiring ongoing assessment of the interventions and levers that successfully improve health outcomes.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IPC education and training can be delivered in an integrated manner, through existing and emerging structures for training related to quality of care. Stakeholder engagement in the process to develop national quality directions can be used to highlight the need for IPC to be incorporated as a key aspect of health professional training.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

CC: core component.
Annex 6. Media coverage

The press conference following the workshop attracted media attention, with journalists from New Vision, a leading Ugandan newspaper and website, writing an article on the event (1).

The article stated that WHO is supporting regional efforts for intensified emergency preparedness, including cross-border disease surveillance, in response to the outbreak of Ebola virus disease in the Democratic Republic of the Congo, which shares a border with Uganda.

The article also quotes Dr Ann Fortin of the WHO Health Emergencies Programme, Regional Office for Africa, who stressed that IPC and hygiene practices should be followed constantly, not just during outbreaks, and Dr Jackson Amone of the Ugandan Ministry of Health, who described the measures Uganda is taking in response to the Ebola virus disease outbreak in the Democratic Republic of the Congo. Those include emergency treatment centres for Ebola virus disease and screening points for detection along the border, along with a national task force and integrated disease surveillance. “What we need to know for any preparedness: we need to have a strong national health system which is ready to respond to any epidemic that may come”, Dr Amone is quoted as saying.

Reference
