

# IWIPC REPORT

## International Workshop on Infection Prevention and Control 2017

"Improving access to water, sanitation, and hygiene healthcare facilities for preventing infection"

### International Workshop on Infection Prevention and Control 2017: Technical Research Workshop on IPC/WASH in Healthcare Facilities

25-27 September, 2017  
Mount Meru Hotel, Arusha, Tanzania

## Workshop Proceedings





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Control 2017: Technical Research Workshop on IPC/WASH  
in Healthcare Facilities**

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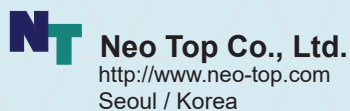
**Workshop Proceedings**

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*Empowered lives.  
Resilient nations.*



*Dr. Neema Rusibamayila*

Director of Preventive Services,  
Ministry of Health, Community Development,  
Gender, Elderly and Children, **TANZANIA**



*Prof. Shaheen Mehtar*

Chairperson,  
Infection Control Africa Network,  
**SOUTH AFRICA**

## FOREWORD

Healthcare Associated Infections (HAIs) are a major concern for health professionals' and patients' safety. Developing countries, particularly those in sub Saharan Africa, bear a large burden of HAIs. Fifteen percent of hospitalized patients and as high as 50% of the patients in intensive care units are affected. The African continent has seen one of the worst impact of infection occurring in Healthcare Facilities (HCF), where hundreds of healthcare workers lost their lives to Ebola. These experiences have served as a reminder of how important it is to protect clients and healthcare workers from infections while in healthcare environment. Water, Sanitation and Hygiene (WASH) services are now identified as pivotal elements in Infection Prevention and Control (IPC). The quality of healthcare services is highly dependent on the services. WASH services have been found to be inadequate in developing countries (WHO 2015 report). A country level assessment in Tanzania confirms that WASH services are inadequate at all levels of Healthcare Facilities (HCF). Discussions on IPC and WASH in HCFs are timely for Tanzania and other countries as we fight against cholera and a risk of other disease outbreaks amidst high burden of infectious diseases.

WHO, UNICEF and partners committed to address the situation at a global meeting (WHO/UNICEF 2016 meeting report), with the aim of achieving universal access in all HCFs, in all settings, by 2030. The WHO/UNICEF Joint Monitoring Programme is now committed to reporting on access to WASH in HCFs as part of monitoring the Sustainable Development Goal on Water and Sanitation.

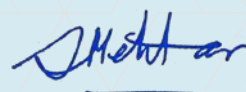


The International Workshop on Infection Prevention and Control (Tanzania) 2017 presented an opportunity to reflect on the progress of the global action plan implementation in Africa and facilitate discussion on the future actions to contribute to the global and national goals. The workshop is seventh among the Infection Control Africa Network (ICAN) spearheaded regional meetings; with the theme: “Improving Water Sanitation and Hygiene (WASH) services for preventing infection in healthcare facilities”. This year’s meeting addressed the issue of infection control for HCFs in Africa. The workshop organization was jointly done by the Ministry of Health, Community Development, Gender, Elderly and Children (Tanzania) and the Infection Control Africa Network (ICAN) and hosted by the National Institute for Medical Research (NIMR), in Tanzania. The meeting brought together 143 IPC and WASH experts and practitioners from Tanzania, other 12 African countries, Europe, America and Asia.

The Ministry of Health, Community Development, Gender, Elderly and Children (Tanzania) and ICAN are delighted with the outcomes of this meeting; which marks a new phase of collaboration in promoting quality of healthcare services through infection prevention and control. Together, we look forward to strengthened partnership and sustained improvement in quality of services.



*Dr. Neema Rusibamayila*  
Director of Preventive Services,  
Ministry of Health, Community Development,  
Gender, Elderly and Children, **TANZANIA**



*Prof. Shaheen Mehtar*  
Chairperson,  
Infection Control Africa Network,  
**SOUTH AFRICA**



## ACKNOWLEDGEMENT

We acknowledge with gratitude individuals and organizations without whose effort the workshop would have not been a success. Firstly the support of Tanzanian Ministry responsible for Health, specifically Honourable Minister Ummy Mwalimu (MP). Workshop organizers from Tanzanian' side Dr. Neema Rusibamayila, Director of Preventive Services; Dr. Mohamed Ally Mohamed, Director of Health Quality Assurance; Dr. Eliakimu Eliud, Ass. Director, Quality Assurance Services and Dr. Khalid Massa, the Ass. Director, Environmental Health Services from the Ministry of Health Community Development Gender Elderly and Children (MoHCDGEC); ICAN board members and executives; Prof. Shaheen Mehtar (Chairperson), Prof. Val Robertson (Honorary Secretary), and Ms. Anna Vondran (Executive Manager); Chairperson and Secretary of the Local Organizing Committee (LOC) Mr. Fabian Magoma from Tanzania Public health Association and Dr. Hamisi M. Malebo from National Institute for Medical Research (NIMR); members of secretariat from NIMR, and Mr. Robert Martin Kitundu consulting workshop documentarist.

We convey special thanks to the esteemed workshop sponsors namely WHO, UNICEF, UNDP, ICAN, Jhpiego, Water Aid, Sanitation and Water Action, Swiss Agency for Development and Cooperation (SDC), Tindwa Medical and Health Services, TANKO KGR FNB LTD and associate South Korean companies, Sanitation and Water for All (SAWA) and the World Collaborative Council on Sanitation (WSCC) for their generous support.

Last but not least we would like to thank health facilities that sponsored their staff to attend the workshop including Muhimbili National Hospital, Dodoma Christian Medical Centre (DCMC), Arusha Lutheran Medical Centre and St Elizabeth Hospital. Finally our sincere appreciation goes to all participants and partners that took part in this year's workshop.

A handwritten signature in blue ink, appearing to read 'Yunus D. Mgaya', with a stylized flourish at the end.

Prof. Yunus D. Mgaya

**Director General**

**National Institute for Medical Research, Tanzania**



## LIST OF ABBREVIATIONS

<b>ABHR</b>	Alcohol Based Hand Rub
<b>AMR</b>	Anti - Microbial Resistance
<b>DCMC</b>	Dodoma Christian Medical Centre
<b>HAI</b>	Healthcare Acquired Infection
<b>HCF</b>	Healthcare Facility
<b>HCWM</b>	Healthcare Waste Management
<b>ICAN</b>	Infection Control Africa Netwo
<b>IPC</b>	Infection Prevention and Control
<b>IWIPC2017</b>	International Workshop on Infection Prevention and Control 2017
<b>JMP</b>	Joint Monitoring Program
<b>MoH</b>	Ministry of Health
<b>MoHCDGEC</b>	Ministry of Health Community Development, Gender, Elderly, and Children
<b>MP</b>	Member of Parliament
<b>NIMR</b>	National Institute for Medical Research
<b>SAWA</b>	Sanitation and Water for All
<b>SDC</b>	Swiss Development Cooperation
<b>SOP</b>	Standard Operating Procedures
<b>SSI</b>	Surgical Site Infection
<b>TPHA</b>	Tanzania Public Health Association
<b>TWAIN</b>	Tanzania Water Sanitation Hygiene and Infection Control Network
<b>UN</b>	United Nations
<b>UNDP</b>	United Nations Development Program
<b>UNICEF</b>	United Nations Children's Fund
<b>WASH</b>	Water Sanitation and Hygiene
<b>WASH FIT</b>	Water Sanitation and Hygiene Facility Improvement Tool
<b>WHO</b>	World Health Organization



# TABLE OF CONTENTS

01 | **Chapter 1**  
WORKSHOP PROCEEDINGS

07 | **Chapter 2**  
WORKSHOP SESSIONS

21 | **Chapter 3**  
WORKSHOP RECOMMENDATIONS

27 | **ANNEXES**  
WORKSHOP PROCEEDINGS

**Foreword i**

**Acknowledgement iii**

**List of Abbreviations iv**





# Chapter 1

## WORKSHOP PROCEEDINGS

### 1.1 Overview

The workshop was held over three days; Day 1 and Day 2 addressed IPC and WASH sub-components respectively. Each workshop day involved sessions addressing specific topics in which presentations were made followed by interactive questions and answers session as well as plenary discussions. Day 3 was dedicated to identifying key issues raised from the first two workshop days and deliberating on the next steps. A unique scientific writing workshop led by Prof Shaheen Mehtar and Dr. Joost Hopman was conducted to help the participants revise their abstracts for scientific communication. The feedback was very positive and many suggested that more of such workshops should be conducted. The sessions and topics that were covered include:

- Infection Prevention and Control in Healthcare Facilities
- Antimicrobial Resistance in African Countries
- Healthcare Associated Infections
- Water Sanitation and Hygiene in Healthcare Facilities situation
- Healthcare Waste Management
- Occupational Health and Safety for Healthcare Workers
- One Health Concept



Official opening and closing sessions were scheduled separately on Day 1 and Day 3 involving dignitaries where opening and closing speeches were delivered by guests of honor. The workshop received a strong positive feedback from participants' evaluations; with 80% rating the workshop as very good or excellent and 100% recommending that the workshop be organized on an annual basis.

## 1.2 Exhibitions

Institutions and partner organizations displayed various products from educational materials, program activities, technological innovations and services offered to improve IPC/WASH for HCFs in Tanzania. Exhibitions took place in special arranged booths throughout the workshop period.

## 1.3 Moderators

The workshop sessions were moderated by the following:





- Dr. Bwijo Bwijo, United Nationals Development Program, Tanzania
- Dr. Joseph Hokororo, National Coordinator Infection Prevention and Control, Tanzania
- Mr. Honest Anicetus, National Coordinator Healthcare Waste Management, Tanzania
- Mr. Robert Njee, Manager – WASH Research Projects, Tanzania

#### 1.4 Session Chairs

- Prof. Val Robertson (ICAN Zimbabwe) and Dr. Chrisostom Lipingu (Jhpiego Tanzania)
- Dr. Joseph Hokororo (MoH Tanzania) and Prof. Ossama Rasslan (ICAN Egypt)
- Dr. Ndekya Oriyo (NIMR Tanzania) and Dr. Awa Ndir (ICAN Senegal)
- Ms. Jackline Makupa (MoH Tanzania) and Mr. Nkwan Jacob Gobte (ICAN Cameroon)



- Dr. Henry Bulabula (ICAN DR Congo) Mr. Fabian Magoma (TPHA Tanzania)
- Prof. Shaheen Mehtar (ICAN South Africa) and Mr. Honest Anicetus (MoH Tanzania)
- Prof. Sheheen Mehtar (ICAN South Africa) and Prof. Val Robertson (ICAN Zimbabwe)
- Dr. Ibrahim Kabole (Water Aid Tanzania) and Mr. Robert Njee (NIMR Tanzania)

## **1.5 Prof Shaheen Mehtar (ICAN South Africa) and Dr. Joost Hopman (Radboudt Hosp, The Netherlands) Keynote Presentations and Way Forward Panelists**

- Prof. Shaheen Mehtar (ICAN South Africa) – Burden of Disease from IPC/WASH
- Ms. Arabella Hayter (WHO Geneva) – Opportunities and Challenges for Improving WASH in HCFs
- Dr. Hamisi M. Malebo (NIMR Tanzania)
- Dr. Joost Hopman (ICAN The Netherlands)

## **1.6 Special Session: Introduction of Tanzania Network on IPC and WASH**

### **1.6.1 Announcement of Tanzania Network on IPC and WASH**

The chairperson of Local Organizing Committee; Mr. Fabian Magoma, introduced a newly formed network for Tanzanians. He announced that election of preliminary leadership had been done and the following were elected to hold national level leadership positions:

The working name for the network was announced as "Tanzania Water Sanitation Hygiene and Infection and Control Network" abbreviated as TWAIN. The newly announced network Chairperson immediately called for IPC and WASH experts and practitioners to join the network and announced an initial membership fee of Tsh 20,000/= for Tanzania citizens and \$10 for foreigners. This was a milestone in Tanzania and was greatly applauded by the participants. This organization will be affiliated with ICAN. As soon as a logo is established, TWAIN will appear on the ICAN website with bilateral hyperlinks between the two organizations. The Chair of ICAN announced that all registered members of TWAIN will be eligible to become members of ICAN for only \$5 as part of the affiliation. They will be given preference to receive bursaries to ICAN conferences should their scientific abstracts be accepted.

## TWAIN LEADERSHIP



**Mr. Honest Anicetus**  
**Vice Chairperson**



**Dr. H. Malebo**  
**Chairperson**



**Dr. Edith Ngirwamungu**  
**Treasurer**



**Mr. Robert M. Njee**  
**Secretary**



**Ms. Sippy Priya**  
**Publicity Officer**



### 1.6.2 Best Presentation Award

The Best Young Presenters Award went to Eric Mboya, a 4th year medical student from Kilimanjaro Medical Center University College (Tanzania) for his research study titled Prevalence and Factors Associated with Irrational Use of Antibiotics in Moshi Municipality, Northern Tanzania. The presentation was chosen by the ICAN board members based on standardized criteria. ICAN presented the winner with a Samsung Tablet T231.

## 1.7 Writing workshop

Writing workshop was a practical oriented session on how to write a good abstract and publishable paper from scientific work. Participants worked in small groups to discuss selected abstract as instructed by facilitators.

## 1.8 Sponsors

The International Workshop on Infection Control 2017 was generously sponsored by:

1. UNICEF
2. UNDP
3. Jhpiego
4. Water Aid
5. Sanitation and Water Action
6. Swiss Agency for Development and Cooperation SDC
7. Tindwa Medical and Health Services
8. TANKO KGR FNB LTD and associate South Korean companies
9. World Collaborative Council on Sanitation
10. ICAN

# Chapter 2

## WORKSHOP SESSIONS





## TOPICS PRESENTED - DAY ONE SESSIONS

*Keynote: Burden of Disease and IPC/WASH.  
Prof. Shaheen Mehtar - ICAN, South Africa*

*Session 1 - Infection Prevention and Control in Healthcare Facilities*

*Session 2 - Antimicrobial Resistance (AMR)*

*Session 3 - Healthcare Associated Infections (HAI)*



Dr. Joseph Hokororo - MoHCDGEC



Dr. Val Robertson - Zimbabwe



Erick Mbonya - KCMC



Rehema Mrutu - RU/NMAIST



Yolanda Gouws - ICAN



Godlove Chaula - NIMR Mbeya



Dr. Edith Ngirwamungu - Pharm Access



Prof. Shaheen Mehtar - ICAN



Dr. Hamisi Malebo - LOC Secretary



Dr. C. Lipingu - JHPIEGO



Lucy Chepkirui Rono - Kenya



Anifrid Mahenge - NIMR Mbeya



Shyoon Kim - Medipace Tz



Awa Ndair - Senegal



Q&A



Q&A



*Workshop was Officiated by the Guest of Honor  
Dr. Neema Rusibamayila*

## DAY ONE September 25th

### 2.1 Official Opening

The workshop was officiated by Dr. Neema Rusibamayila, the Director of Preventive Services, Ministry of Health, Community Development, Gender Elderly and Children (MOHCDGEC) Tanzania on behalf of Hon. Ummu Mwalimu (MP), the Minister for Health, Community Development, Gender, Elderly and Children. The guest of honor registered an apology from the Honorable Minister for not being present in person but assured the organizers of her commitment and support to the workshop agenda. She expressed her concern on the issue of poor Water, Sanitation and Hygiene (WASH) situations, especially in healthcare facilities, despite the fact that her ministry is a custodian of the issues. She acknowledged that the Ministry is responsible for taking a lead in addressing the challenges, and promised to follow-up the deliberations of the current workshop for administrative actions. She finally declared the workshop officially open.



*A vote of thanks to the guest of honor  
Mr. Fabian Magoma*

A vote of thanks to the guest of honor was delivered by Mr. Fabian Magoma, the Chairperson of the Workshop's Local Organizing Committee. The chairperson cordially thanked the guest of honor for attending and addressing the workshop. He also expressed appreciation to the organizing committee, specifically mentioning Dr. Hamisi Malebo (NIMR), Mr. Honest Anicetus (MoH), Dr. Edith Ngirwamungu and Mr. Robert Mussa Njee, for their tireless efforts and support to the workshop. He finally recognized the extended contribution of Prof. Shaheen Mehtar for pioneering IPC/WASH through

Infection Control Africa Network (ICAN), specifically in the control of Ebola in West Africa. He promised that Tanzania will join hands by forming a national network to champion IPC and WASH in the country and beyond for IPC/WASH. He also requested the guest of honor to become the TWAIN matron.



*Giving welcome remarks*  
**Prof. Yunus D. Mgaya**

Prof. Yunus D. Mgaya, the Director General of NIMR, gave a welcome remark in which he thanked the workshop delegates for their attendance; giving special thanks to ICAN for considering Tanzania as the host for 2017 International Workshop. He also thanked the guest of honor for officiating the opening of the workshop. He embraced all participants and thanked all partners and sponsors for their support.

Dr. Hamisi M. Malebo, a secretary to the Local Organizing Committee (LOC), then presented the workshop objectives. He outlined the workshop objectives as:



*Presenting workshop objectives*  
**Dr. Hamisi M. Malebo**

To facilitate IPC/WASH information dissemination and awareness creation on IPC/WASH principles and practices at household level, community, institution and healthcare facilities.

To facilitate exchange of IPC/WASH information and data on infection and control principles and practices through workshop and publication.

To strengthen/ support the government capacity to develop guidelines, SOPs through consensus of IPC/WASH stakeholders.

To educate all members of health and water professions on the importance and practice of good IPC/WASH measures both within health training institution/ healthcare facilities and in the community.



To foster IPC/WASH research into patterns of established and emerging infectious diseases and their modes of transmission and into new and improved measures designed to interrupt such transmission.

## 2.2 Greetings from WASH/IPC partners and officials

Representatives from IPC and WASH partners including WHO, Jhpiego, WaterAid, Tindwa Medical Services, ICAN, and Tanko LTD sent greetings and briefly addressed the meeting before the Guest of Honour delivered opening speech. Key messages from the partners included an overview of their IPC/WASH experience and services in Tanzania and their commitment to the ongoing efforts to improve quality of healthcare. Tanco LTD (Health technology supplier) presented a donation of twenty (20) needle smelters to the guest of honor. The smelters were meant to be supplied to Tanzanian Healthcare Facilities (HCFs). Special greetings were delivered from Zanzibar by Dr. Fadhil Abdalla, the Director of Preventive Services of the Ministry of Health from the Revolutionary Government of Zanzibar. Progress in Zanzibar was outlined including presence of technical guideline and SOPs on IPC/WASH.



**WHO Representative**  
*Barthasar Rwelengera*



**JPHIEGO Representative**  
*Dr. Chrisostom Lipingu*



**WaterAid Country Director**  
*Dr. Ibrahim Kibole*



**TINDWA Executive Director**  
*Dr. Chakou Halfani*



## 2.3 Closing Ceremony

The workshop was closed by the Guest of honour, Mr. Richard Itega, the Regional Administrative Secretary for Arusha, on the third and final day of the workshop, September 27th. The guest of honor stressed the need to put into action all that have been agreed during the entire workshop. He further invited participants to enjoy the beauty of Arusha and Zanzibar. He then declared the workshop closed.

Prior to closing speech from the guest of honor, the chairman of the organizing committee, Mr. Magoma, gave a briefing of the workshop to the guest of honor. He pointed out need for capacity building through training, addressing infrastructure and behavior change requirements for IPC/WASH. He also highlighted the importance of operationalization of guidelines for IPC/WASH already in place. After the briefing, Organizing Committee took a photo with the guest of honor just before he delivered a closing speech.



*Guest of honour, Mr. Richard Itega, the Regional Administrative Secretary for Arusha.*

## 2.4 Summery of key points from day 1 Sessions

Main themes covered in presentations and plenary sessions were Infection Prevention and Control (IPC) in healthcare facilities, antimicrobial resistance in African countries and healthcare acquired infections. Key points and comments raised from the plenary sessions for day 1 are summarized in the Table 1 below.

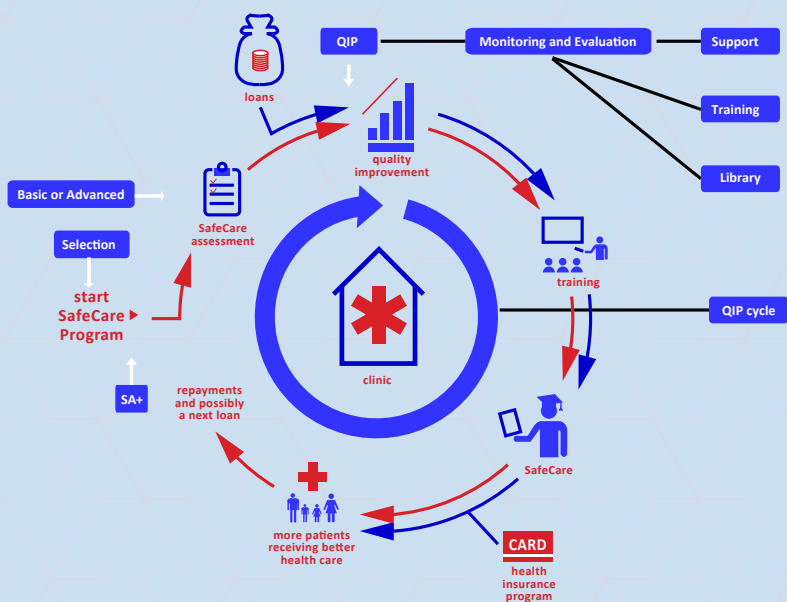
**Table 1: Summery and Comments from Session 1 through 3 of Day 1**

S/N	Issue
1.	Water analysis reveals majority of water supplies (including water from community water supply schemes) to healthcare facilities are fecally contaminated with potential of transmitting infectious agents. This brings dilemma on the benefits of hand washing with water of such quality.
2.	A study suggested that more females than males are involved in the irrational use of antimicrobial agents. The reasons were not clear from the study thus need further research.
3.	Syndromic diagnosis (formally recommended by WHO) and lack of capacity to carry out laboratory investigations were identified among the main drivers for over prescription of antibiotics. Plans to build capacity for culture and sensitivity testing in rural healthcare facilities are identified as essential in addressing antimicrobial resistance problem.
4.	Positive national policies and legal statutes are in place to prohibit over-the-counter dispensing of antibiotics in many African countries. However, the legal and policy instruments not being (or at least not effective) in controlling irrational use of antimicrobial agents?
5.	Some of the current challenges with infection prevention and WASH services have been addressed in the developed world. African countries should also find ways to learn from developed countries. South Korea for example had expressed willingness to support Tanzania with technology and expertise.
6.	Studies (in Mwananyamala hospital and elsewhere) have shown high incidences of neo-natal sepsis but we are yet to explore the reasons for high incidences. It was recommended to take some initiatives in exploring the reasons for the high levels of neo-natal sepsis.
7.	Why shouldn't experts begin to be concerned about child to child transmission in day care centres, as the burden of Hepatitis B virus is increasing in Africa?



*Exhibition by the Guest of Honor*

## SafeCare: Cycle of Quality Improvement



*Participants following up sessions*



## TOPICS PRESENTED - DAY TWO SESSIONS

*Keynote: Challenges and Opportunities for improvement in Water, Sanitation and Hygiene in Healthcare Facilities.  
Ms. Hayter Arabella, WHO-Geneva*

*Session 1 & 2 - Water, Sanitation and Hygiene (WASH) in Healthcare Facilities*

*Session 3 - Healthcare Waste Management and Occupational Health & Safety*

*Session 4 - One Health*



Chandler Hinson - NIMR/Georgetown-USA



Prof. Shaheen, Awa and Dr. Val



Nkwan Jacob Gobte - Cameroon



Joseph Marunda - Singida Hospital



Maimuna Salum - Tindwa Medics



Emmanuel Makundi - NIMR HQ



Q & A



Dr. Malabo and Mr. Honest



During Session



Jackline Makupa Chairing the session



Dr. Bwijo Bwijo - Dean of Ceremony



Q & A



Front desk for Sessions



Following the sessions



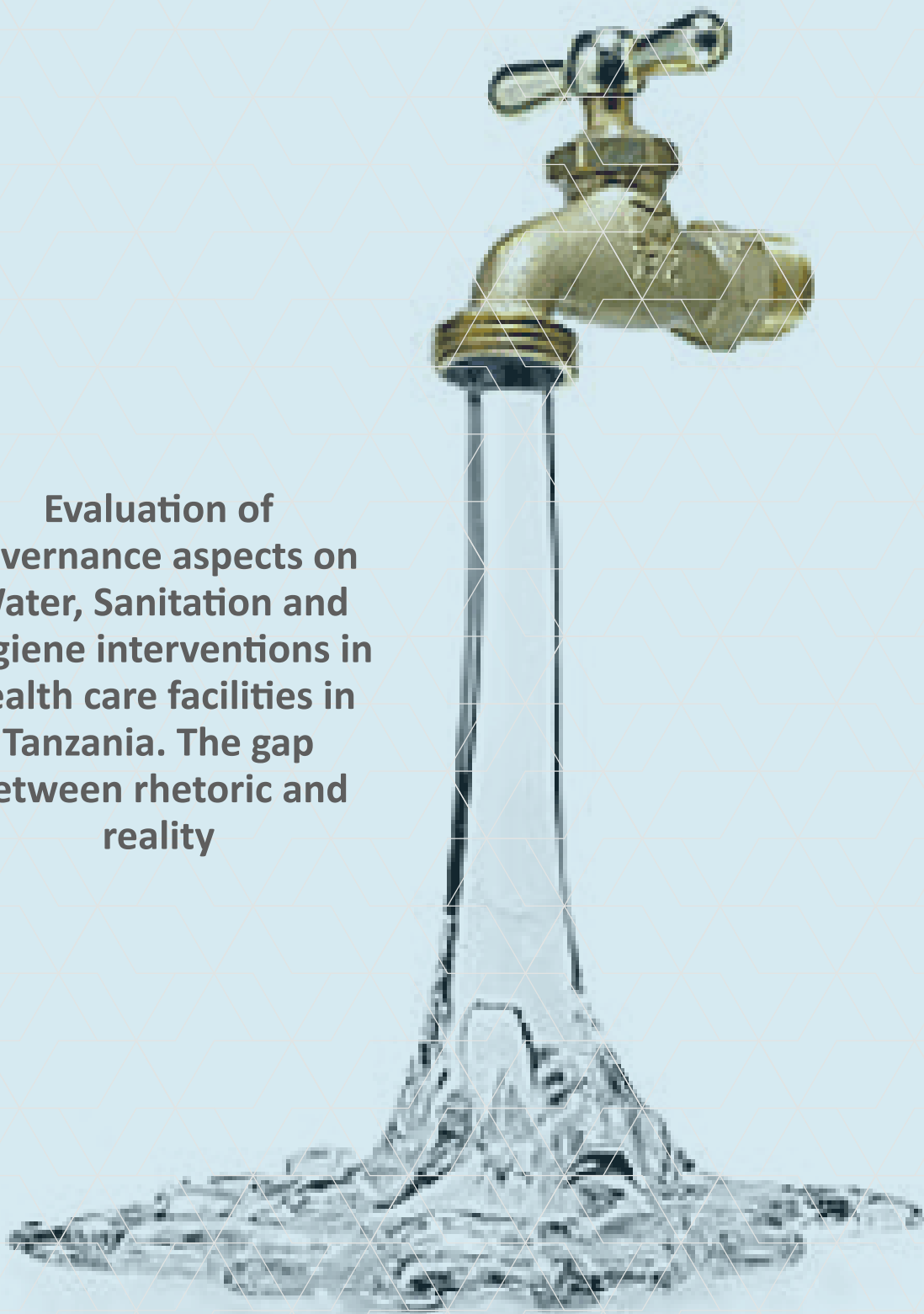
Q&A



Dr. Boniface Richard



**Evaluation of  
governance aspects on  
Water, Sanitation and  
Hygiene interventions in  
health care facilities in  
Tanzania. The gap  
between rhetoric and  
reality**





### 3.1 Recap of Day 1

Day two started with the recap of day one presented by Dr. Joseph Hokororo followed by Session 4 opened with key note address.

### 3.2 Summery of key points from day two

Major themes covered were Water Sanitation and Hygiene (WASH) in Healthcare Facilities (HCFs), Healthcare Waste Management, Occupational Health and Safety for Healthcare Workers, and One Health Concept. Key points and comments that arose from questions and discussions in plenary sessions for day 2 are as summarized in the Table 2 below.



*Evaluation of governance aspects on Water, Sanitation and Hygiene interventions in health care facilities in Tanzania. The gap between rhetoric and reality*

Table 2: Summary and comments from Session 1 through 3 of Day 2

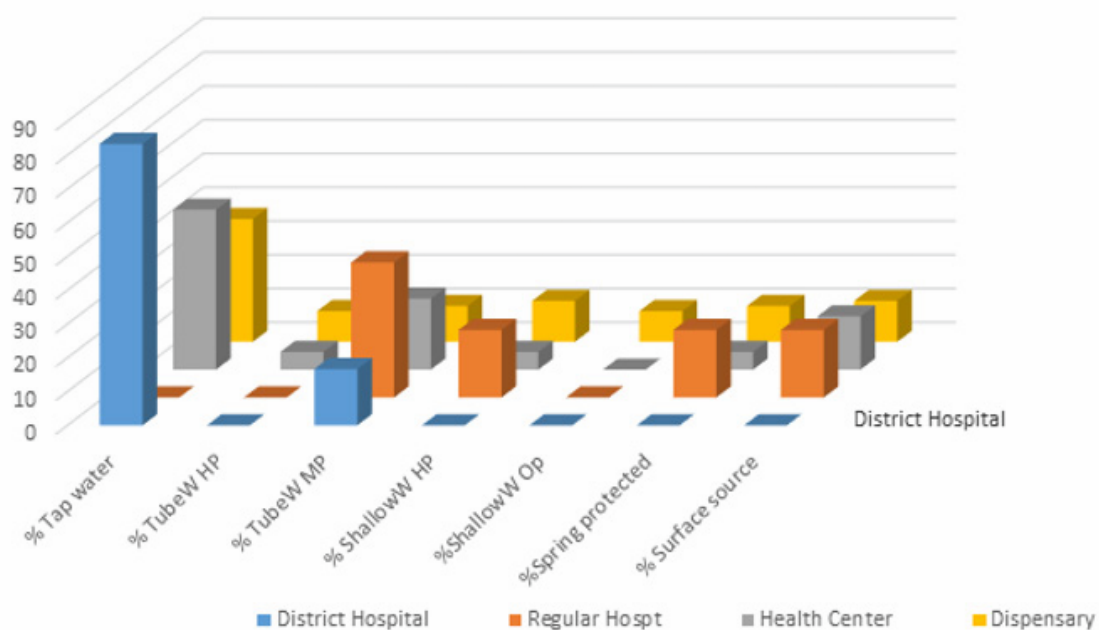
S/N	Issue
1.	There is great need for documentation on the impact of IPC and WASH in HCFs on morbidity and mortality from related diseases. Evidence is expected to come soon from the work done in developed countries (As noted by <b>Dr. Hofman</b> ). However, research is required from African countries.
2.	Governance is critical for success of efforts to improve WASH in HCFs. There must be ways to advocate changes among health sector leadership. We must also move from depending on donor driven programs. Governments should have dedicated budgets for WASH/IPC to facilitate sustainable programs and systems.
3.	Strengthening partnerships between... as well as building capacity of.... For example, conducting trainings to support experts and partners to work together and address WASH in HCFs in a sustainable way.
4.	Data from studies done in Tanzania revealed a big gap in hand washing practices among auxiliary health workers in 7 study districts. It is important to increase promotion and provisions for hand washing. The promotional messages should aim to change the individuals' thinking on hand hygiene. The use of hand sanitizers should be incorporated. Production of locally made antiseptic hand rub is a strategic opportunity to improve WASH/IPC practices in African countries. Collaboration is encouraged to expand the benefits of using alcohol hand hygiene across countries.
5.	Enhancing community engagement and ownership in the improvement of WASH in HCFs is a critical factor for sustainability.
6.	There is a need for training on the importance of having appropriate infrastructure in place and meeting specific infrastructural requirements for infection control including provision of intact washable surfaces and hygienic layouts in the facilities.
7.	There is a wide appreciation on the positive role of private stakeholders (learning from Tandwa Medical and Health Services in Tanzania) particularly in providing centralized waste management and cleaning/sterilization services and provision of equipment and technologies to improve practice. Private sector stakeholders should be an integral part of the country official WASH and IPC frameworks.
8.	Improving workers health is an integral component of WASH and IPC. It is important for countries to adopt a structure that integrates the three components together.
9.	IPC WASH programs have an important role to play in addressing antimicrobial resistance and should be linked with ONE HEALTH.



Sources of water for health care facilities



Sources of water supplies by healthcare facility type







## TOPICS PRESENTED - DAY THREE SESSIONS

*Session 1 - Way forward on WASH/IPC Africa*

*Session 2 - Writing workshop*

### *Certification*



*Dr. Malebo and Prof. Shaheen - Certificates*



*Mr. Magoma and Prof. Shaheen - Certificates*



*Dr. Ibrahim Kabole and Robert Njee*



*Q & A*



*Dr. Bwijo with members of the high table*



*Ms Sippy Priya Recaping Day 2*



*Members*



*Local Committee with a Guest of Honor*



*Dr. Barankena Following up a session*



*Mrs. Christa P. Mani and Mr. Robert*



*Documentarist Desk*



*Participants*



*Participants*



*Participants*



*Guest of Honor Mr. Richard Itoga - RAS Anisha*



*Ms. Celina C. Keny - NIMR HQ*



## Key issues arose from WAY FORWARD Session

Ten key issues were brought up during the session. Clarifications and way forward were proposed for each as summarized below:

### 4.1 IPC/WASH in Healthcare Facilities and Global Development Agenda (SDGs)

**Issue:** Clarification was required on the position of IPC/WASH in the current (2015 – 2023) global development agenda. Where do the IPC/WASH services stand in HCFs and how do the services contribute to the attainment of the Sustainable Development Goals (SDGs)?

**Clarification and way forward:** Infection Prevention and Control (IPC) and Water Sanitation and Hygiene (WASH) services in healthcare facilities address several SDGs. In the context of improving quality of care and ensuing delivery of safe healthcare services; the services address SDG 3 (good health), especially targets 3.1 and 3.2 on reducing maternal and neonatal mortality, and target 3.8 on universal health coverage. Improving WASH in HCFs is included within targets 6.1 and 6.2 on universal access to safely managed water and sanitation by increasing access and quality of services. In addition, health care waste management (including volume reduction and safe treatment and disposal) is linked to SDG 7 on clean energy and SDG 13 on climate change, providing further momentum and resources for

comprehensively addressing environmentally-sound infrastructure in HCFs. While there is no specific SDG target on IPC/WASH in healthcare facilities, the WHO/UNICEF Joint Monitoring Program has included specific targets on IPC/WASH in its global monitoring framework for WASH in institutions (health care facilities and schools) (JMP, 2016). The ICAN working group on IPC/WASH would undertake developing some appropriate guidelines based on the WHO WASH programmes.

It is important for IPC/WASH practitioners and other contributors to understand the relevance of the services to attaining the SDGs and to ensure positive contribution towards the global monitoring framework.

## 4.2 Hand hygiene:

**Issue:** Presentations from Tanzania revealed poor hand washing practices as a major limitation to infection prevention. Hand washing is frequently hindered by water shortages as well as poor understanding of its importance. The alcohol based hand rub have on the other hand proven highly efficacious and favours adherence to hand hygiene practices. However, the recommended solution to the problem has always been promoting hand washing which now needs to change.

**Proposed way forward:** It is high time to change the focus from hand washing (with water and soap) alone to hand hygiene (which encompass the use of alcohol based hand rubs). Experiences from African countries that improved local production and use of hand sanitizers have shown that delivery of Alcohol Based Hand Rub (ABHR) is affordable and practical in low resource countries. However, there is need of advocacy for change of behaviour and attitude in favour of comprehensive hand hygiene program. It should be noted, however, that provision of ABHR is not a substitute for ensuring a clean, safe and reliable water supply.

## 4.3 Sustaining gains through Monitoring and Evaluation of IPC/WASH in HCFs:

**Issue:** The status of Infection Prevention and Control (IPC) in healthcare facilities has dwindled in facilities that exhibited impressive progress few years back. The lack of sustained effort is likely to hinder progress in IPC in HCFs just like WASH.

**Proposed way forward:** It is important for countries to adopt sustainable frameworks which include continuous support, government commitment, and community involvement in Monitoring and Evaluation of IPC and WASH progress. There is a need to embrace existing monitoring programs including the Quality Improvement Framework (QIF) (in Tanzania for example), the WASH FIT system



developed by WHO, and other effective frameworks. Global and local partner organizations including the UN and other multilateral (and unilateral organizations) and NGOs support for sustainable systems is vital.

Sustainability of changes at health care facilities requires presence of dedicated infrastructure maintenance and services plans in place.

#### **4.4 Health facilities approach to Nosocomial infections in low resource settings:**

**Issue:** Managing (mainly prevention and control) Hospital Acquired Infections (HAIs) at healthcare facilities are a major practical challenge despite awareness of the large burden in low resource settings. Limitations in monitoring of HAI are a leading hindrance to ability to plan for and manage the infections at facility level.

**Proposed way forward:** Surgical Site Infections (SSIs) is by far the leading form of HAIs in Africa, followed by neo-natal sepsis. SSI can be used as indicators of the burden of HAIs. Understanding of the burden of disease requires strengthening capacity and coordination of disease surveillance. Periodic “point prevalence” studies and determination of the types and antimicrobial sensitivity patterns for nosocomial agents are recommended.

#### **4.5 Ensuring sustainable access to clean and safe water in Healthcare Facilities:**

**Issue:** Presentations from multiple countries reveals that up to 40% of HCFs experience severe shortages of water and/or use water that is contaminated and not suitable for use in healthcare facilities. Both water shortage and the use of unsafe water threaten spreading of infection to patients, staff, and communities. The problems impair the measures taken to prevent infection and provide clean and safe care.

**Proposed way forward:** Experience from successful projects and programs shows the need to foster collaboration between sector ministries particularly the Ministry of Water and to strengthen community involvement and ownership of quality of healthcare delivery. Water and Infrastructure sector must be involved in provision of WASH services from planning stage as well as in continuous management of water supply programs in HCFs. Zimbabwe example was referred which demonstrated success in improving access to water in a HCF through improved storage, where the community was effectively involved. Further application of innovation and locally available options for improving access to clean and safe water are encouraged.

Water Sanitation and Hygiene services should be prioritized for in order to achieve adequacy in provision. This should be advocated at national and sub national levels.

Access to clean and safe water should be established as fundamental requirement and prerequisite for service provision and preventing infection in healthcare facilities, hence, it is a matter that needs urgency. The matter should be taken to the highest policy levels. Providing all HCFs with basic water supplies in the foreseeable future should be the minimum target.

#### 4.6 Management of Antimicrobial Resistance

**Issue:** Antimicrobial Resistance (AMR) is a growing challenge with serious impact on human health. The problem is multi-sectoral and solution to the problem is complex; requiring analytical capacity and coordination of different sectors. What options are there to address AMR in low resource African countries?

**Proposed way forward:** Determination of antimicrobial sensitivity patterns is fundamental in management of antimicrobial resistance. However, majority of primary and secondary healthcare facilities in resource constrained countries are deficient in laboratory capacity necessary to perform the tests. Strengthening laboratory capacity for selected central level facility laboratories along with incremental improvement of basic laboratory infrastructure for microbiological analysis in peripheral facilities is recommended as an effective approach. Antimicrobial Resistance (AMR) management programs for health care facilities must involve IPC and WASH improvement measures in facilities, healthcare waste management (particularly management of pharmaceutical waste), training and regulations on the use of antimicrobials, as well as coordination through the One Health Approach.



*Maimuna and Aisha both from  
Tindwa Medical*





*Presentation, question and answers on the way forward on WASH/IPC Africa*

#### 4.7 Healthcare waste and appropriate technologies for IPC/WASH

**Issue:** Country wide assessments show inadequacies in management of healthcare waste mainly due to poor segregation practices, inadequacies in standard waste collection handling and transporting equipment, low access to incinerators and limited waste treatment options. Inadequately managed, healthcare waste remains a significant risk to patients' health, workers health and safety and environmental sustainability.

**Proposed way forward:** Healthcare waste management programs need to be well supervised at all levels. Resource limited countries should work with private sector stakeholders and make use of innovative solutions in order to increase effectiveness and resource efficiency in management of waste. It is highly recommended that Ministry of Health and sub-national level officials explore the potential for reducing the burden of waste management by using some of the technologies and techniques available, including centralized waste treatment arrangements.

#### 4.8 Accountability and governance:

**Issue:** Research studies have identified a number of elements of governance and accountability that influence the effectiveness of WASH and IPC programs in healthcare facilities. Lack of awareness of the problem among leaders, unfavourable financing structures and lack of resources, absence of motivation to improve quality, unsuitable physical infrastructure and equipment for IPC/WASH performance, low



leadership commitment and accountability to improve quality of care and prevent infection are named among the key factors hindering progress in IPC/WASH in HCFs.

**Proposed way forward:** Good governance and accountability structure should be advocated from the national level to healthcare facility administrative levels, taking into account the needs for training and capacity building on quality improvement (IPC/WASH/HCWM) and cost effectiveness systems and measures among health managers. Enabling framework including budgetary allocation and motivation systems should be put in place. Investing in human behaviour, provision of supportive infrastructure (built environment) facilities and services (like functional hand hygiene systems) as well as involving communities in quality improvement processes are crucial measures that need to be taken.

At higher levels, accountability and governance structures should encompass community ownership, maintaining good information flow, involvement of all key stakeholders, as well as advocacy and sensitization of political leaders.

#### 4.9 Training and research on IPC/WASH in HCFs

**Issue:** Participants expressed a need for up to date scientific information and skills necessary to improve IPC and WASH practices in healthcare facilities in countries represented, Tanzania in particular. Through the discussions as well as questions and answers sessions, the experts identified knowledge gaps in the areas of “Disease Transmission” particularly among WASH practitioners. The current scientific updates on infection control as well as epidemiological and HAI surveillances for both the IPC and WASH groups were found to be inadequate.

**Proposed way forward:** The ICAN chair appreciated the expressed need for training



(knowledge and skills development) in IPC/WASH. She informed the meeting that training and skills development are a central priority of ICAN which is geared at building capacity of African countries in preventing infection. The chairperson assured participants that ICAN was ready to work with government and stakeholders in all countries to conduct capacity building initiatives at all times. The use of national societies on infection control for communication was recommended, although ICAN was ready to work with all governments and partners. Some of the areas where training could address include: pathogens transmission, WASH/IPC monitoring and evaluation, disease surveillance, and leadership skills.

#### **4.10 Sterilization of Medical Devices/Built environment (infrastructure) requirements for IPC practices**

**Issue:** Participants expressed concerns about the lack of validated decontamination processes and systems in Africa, particularly in Tanzania. The sterile service staff were not adequately trained. There was lack of validated methods to deliver sterile packs. The contribution of unsterile packs to surgery associated infection was a major concern.

**Proposed way forward:** The ICAN chair recommended the establishment of independent decontamination or sterilization units which would be run by trained staff. There was a need to understand the link between IPC-WASH and decontamination and this would be provided through certification training in decontamination for all sterilization staff. From the training, the staff would learn how to make surgical devices safe even with low limited resources. Governments networks lead by ICAN should work together to address this.

#### **4.11 Concluding remarks and roadmap for improvement from Panelists**

It is important for governments and stakeholders to take into account the specific needs of rural HCFs and standardize IPC/WASH policies at different levels. We must focus on what we are aiming at; let's start with small actions and build them up one step at a time. We shall have to encourage people to work towards the goal and help improve their attitude. To start with, we need to put the information together, set up budgets and train HCF workers how to reduce wastage. We should prioritize a few HCF to begin with, and expand more and more with time until they become the model for scaling up. To make these changes happen fast, we must advocate for influence and action to political leaders. Then at operational level, we will need to involve all key stakeholders, facilitate inter-sectoral collaboration, and strengthen governance at national, sub-national/provincial/regional/district and healthcare facility levels.

# Chapter 3

## WORKSHOP RECOMMENDATIONS



*IWIPC Local Organising Committee with the Guest of Honor;  
Mr. Richard Itenga, the Regional Administrative secretary for Arusha Region*

The IWIPC2017 is giving recommendations for action for different groups of actors and stakeholders as follows:

### **5.1 Recommendations given towards Governments**

The government should embrace the global efforts to improve quality of healthcare services and ensure provision of safe care. This should go hand in hand with the global development agenda. There should be a mechanism to ensure that any harm in the form of infections or injuries occurring in the process of care provision is minimized while placing safety of clients, healthcare professionals and environment at the centre of healthcare services.

It is a high time for Governments and WASH stakeholders to work out national plans of action and align them with the Global Action Plan for WASH in HCFs as a way to accelerate progress towards attaining the Sustainable Development Goals by 2030.

Ministries of health should adopt a stepwise approach to IPC/WASH improvement with staff and client education, progress monitoring, good governance and accountability frameworks. Best practices should be identified and promoted among healthcare staff members. Community participation towards improving quality of care should also be encouraged. Quality standards and legislations should be put in place. Programs to build capacity of health practitioners should be designed and implemented for sustainability.

Coordination between health, water, infrastructure, environment, livestock, and education sectors should be strengthened for sustainable provision of WASH service in HCFs. Collaborations between governments, development partners, non-governmental, civil societies, and private sector stakeholders should be strengthened using the existing structure such as quality improvement frameworks.

### **5.2 Recommendations given towards Development Partners, Unilateral and Multilateral Organizations, Non-Governmental Organizations, and Civil Societies**

Advocate for and support provision of clean and safe healthcare services through improved IPC/WASH interventions, by working along with governments and partners including national and international societies and networks to support progressive improvement of IPC/WASH standards.

Private sector partners are encouraged to work together with public sector to foster production and equitable supply of effective products, materials, systems, and

infrastructure for IPC/WASH best practices, including up to date technologies that are affordable and suitable for low income settings.

### 5.3 Recommendations given towards WASH/IPC practitioners and experts

Practitioners and experts in WASH/IPC are called to work together to advance knowledge and improve practices through peer training, collecting and use of high quality research, and by contributing technical expertise in improving policy, plans, and practices; influencing positive behaviour using the best scientific evidence based on IPC/WASH. The discussions from the current workshop identify the need for particular emphasis on hand hygiene, water quality, sterilization of medical devices, built environment and sustainability of IPC/WASH initiatives in low resource settings.

Bridging professional and operational groups to facilitate collective planning, actions, and monitoring progress of IPC/WASH. Strengthening collaboration between experts within and outside countries for sharing and advancing technical knowledge on the subject.



*Dean of Ceremony, Dr. Bwijo Bwijo*





*Dean of Ceremony, Dr. Bwijo Bwijo*



*Venue hall with participants - grand*



*Experts questions*



*Smelter to DPS Zanzibar*





*The Guest of honor, Dr. Neema Rusubamayila exhibit the TANKO products*



*TWAIN leaders with venue hosts*

# Annexes

## Annex I: Detailed workshop program

### IWIPC 2017 WORKSHOP PROGRAM

25-27 SEPTEMBER, 2017, MOUNT MERU HOTEL, ARUSHA, TANZANIA

**Monday, 25 September 2017**

#### Registration and Official opening

08:00	<b>Registration:</b> All participants
08:30	<b>Climate setting and Introduction:</b> Mr. Robert M. Njee & Dr. Ndekya Oriyo, Workshop Secretariat
08:40	<b>Welcoming remarks:</b> Prof. Yunus D. Mgaya, Director General, NIMR
08:50	<b>Workshop objectives:</b> Dr. Hamisi M. Malebo, Workshop Secretariat
09:00	<b>WASH/IPC in Healthcare Facilities</b> JHPIEGO, WaterAid, Tindwa Medics, UNICEF, WHO and (Private organization/Development Partner organizations representation)
09:20	<b>Remarks by MoHCDGEC Zanzibar</b>
09:25	<b>Remarks by MoHCDGEC</b> <i>Director of Preventive Services Dr. Neema Rusibamayila</i>
09:35	<b>Invitation of the Guest of Honour</b> <i>Regional Commissioner for Arusha</i>
09:40	<b>Official Opening of Workshop, Deputy Minister</b> MoHCDGEC, Hon. Dr. Hamisi A. Kigwangala
10:00	<b>Vote of Thanks:</b> Mr. Fabian Magoma, Chairperson, TPHA
10:15	<b>Coffee Break</b>

10:30 – 11:10 Keynote:

**Burden of Disease and IPC/WASH. Prof. Shaheen Mehtar – ICAN, South Africa**

#### Session 1 – Infection Prevention and Control in Healthcare Facilities

*Chair: ICAN Member from Zimbabwe Prof Val Robertson*

11:15	Status of quality improvement in healthcare facilities in Tanzania. <i>Dr. Joseph Hokororo – MoHCDGEC, Tanzania</i>
11:30	Infrastructure required setting up an IPC programme in healthcare facilities. <i>Dr. Val Robertson – University of Zimbabwe, Zimbabwe</i>
11:45	Standards-based management and recognition (SBM-R) as an approach for improving the quality of Infection Prevention and Control (IPC) practices. <i>Dr. Christosome C. Lipingu &amp; Lemmy Mabuga – JHPIEGO, Tanzania</i>
12:00	The impact of focused, sustained Infection Prevention and Control (IPC) Site Support Visits (SSVs) on a rural district hospital in Zimbabwe. <i>Admire Simbarashe Murongazvombo – MoHCC, Zimbabwe</i>
12:15	Improving performance of IPC/WASH in healthcare facilities through the SafeCare approach. <i>Dr. Edith Ngirwamungu – Pharm Access, Tanzania</i>



- 12:30 Impact of Infection Prevention and Control Program at Kapkatet Sub-County Hospital, Kericho County, Kenya. *Lucy ChepkiruiRono - Kapkatet Sub-County Hospital, Kenya*
- 12:45 Infection prevention and control practices including application waste Management system in Ethiopia: retrospective study. *Mistire WoldeGebre – Ministry of Health, Ethiopia*
- 13:00 Extent of microbial contamination of hands of healthcare workers, patients and water used for handwashing in healthcare facilities in Tanzania. *Dr. Eva Sosovele, UDSM, Tanzania*

13:15 – 13:45  
13:45

Discussion  
Lunch Break

## Session 2 – Antimicrobial Resistance (AMR)

*Chair: Dr. Joseph Hokororo - Tanzania*

- 14:15 Culture, identification and antibiotic sensitivity testing of bacteria isolated from patients enhance proper treatment to reduce antibiotics resistance: Case report Mbeya- Tanzania. *GodsloveChaula, NIMR-Mbeya, Tanzania*
- 14:30 Confirmed case of multi-drug resistant bacteria among in patients within the CHU-HJRA Ampefiloha Hospital between 2008 to 2011 and 2015 to 2016. *Andriantsimetry & Ravaosendrasoa – Ministry of Health, Madagascar*
- 14:45 Detection of microbial surface contamination and antibiotic resistant Escherichia coli on beef carcasses in Arusha, Tanzania. *Rehema Murutu – RU/NMAIST, Tanzania*
- 15:00 Prevalence and factors associated with irrational use of antibiotics in Moshi municipality. *Erick Mboya – KCMC, Tanzania*

15:15  
15:45

Discussion  
Coffee Break

## Session 3 – Healthcare Associated Infections (HCAI)

*Chair: Dr. Ibrahim Kabole - Tanzania*

- 16:00 Evaluation of Diagnostic Criteria for Neonatal Sepsis at a Resource Limited Setting: Mwananyamala Regional Referral Hospital, Dar es Salaam, Tanzania. *Sehyeon Kim, Medipeace, Tanzania*
- 16:15 Seroprevalence of HBV, HCV and associated factors among blood donors at EZBTS Dar es Salaam, Tanzania 2014. *Anifrid Mahenge, NIMR-Mbeya, Tanzania*
- 16:30 Hospital-Acquired Neonatal Sepsis Outbreak in an Intensive Care Unit, Parirenyatwa Group of Hospitals, Zimbabwe, 2016. *Hamufare Mugauri, Zimbabwe*
- 16:45 From policy to practice: Education in infection prevention and control in South Africa. *Prof. Shaheen Mehtar, ICAN – South Africa*

17:00  
17:15

Discussion  
Closing Day 1

# Tuesday, 26 September 2017

## 8:15 Recap of Day 1

08:30 – 09:10 Keynote:

**Challenges and Opportunities for improvement in Water, Sanitation and Hygiene in Healthcare Facilities.**  
**Ms. Hayter Arabella, WHO-Geneva**

### Session 1 – Water, Sanitation and Hygiene (WASH) in Healthcare Facilities

*Chair: Jackline Makupa- Tanzania*

- 09:15 Built environment: Water, sanitation and hygiene in healthcare facilities.  
*Joost Hopman, The Netherlands*
- 09:30 Environmental cleaning in healthcare facilities.  
*Annavorndran, ICAN, South Africa*
- 09:45 Water, Sanitation and Hygiene (WASH) status at Health-Care Settings (HCS) in Tanzania: The case study of Zanzibar and Dodoma (MKAJI project).  
*Thea Bongertman and Ibrahim Kabole, Tanzania*
- 10:00 Existing situation of Water, Sanitation and Hygiene (WASH) in Health Care Facilities (HCFs) providing maternal and child health services in Tanzania.  
*Dr. Hamisi M. Malebo, NIMR-HQ, Tanzania*

10:15 – 10:45

10:45

Discussion

Coffee Break

### Session 2 – Water, Sanitation and Hygiene (WASH) in Healthcare Facilities. cont

*Chair: Honest Anicetus - Tanzania*

- 11:00 Integration of improved WASH and Maternal, Newborn and Child Health (MNCH) services in Kiomboi District Hospital, Tanzania.  
*Ibrahim Kabole and Dr. Boniphace Richard, Tanzania.*
- 11:15 Governance and priority setting issues in the provision of water, sanitation and hygiene interventions in health care facilities in Tanzania. The gap between rhetoric and reality in the implementation of interventions. *Mr. Emmanuel A. Makundi, NIMR-HQ, Tanzania*
- 11:30 Status of Water, Sanitation and Hygiene (WASH) Services in Health Facilities, Misungwi District, Northwestern Tanzania. *Dr. Wemael Mweteni, CUHAS, Tanzania*
- 11:45 An Infection Prevention and Control (IPC) success story: Improvement of water sanitation and hygiene (WASH) conditions at health facilities in Zimbabwe. *Tendayi Jubenkanda, BRTI, Zimbabwe*
- 12:00 Access to effective and safe technologies for WASH/IPC in Africa,  
*Mr. Kayombo, Tanzania*
- 12:15 From Priority to Practice: Making Improved WASH in HCF a Reality in Kigoma Region, Tanzania.  
*Lawrence J. Wuest & Ambakisyek. Mhiche, RHMT-Kigoma, Tanzania*
- 12:30 From Research to Action: Roadmap for WASH improvement in Healthcare Facilities in Tanzania:  
*Anyitike Mwakitalima/ Amour Seleman, MoHCDGEC, Tanzania*

12:45

13:15

Discussion

Lunch Break

### Session 3 – Healthcare Waste Management and Occupational Health & Safety

*Chair: ICAN Member – Andriantsimietry – Ministry of Health, Madagascar*

- 14:15 Improving healthcare waste management in Healthcare Facilities in Tanzania.  
*Mr. Honest Anicetus, MoHCDGEC, Tanzania*
- 14:30 Increasing efficiency of HCWM through centralized biomedical treatment and disposal systems, in Dar Es Salaam, *Maimuna Salum (Tindwa Medics), Tanzania*
- 14:45 Prevalence of needle prick injuries among healthcare workers in Engela hospital 2014 to 2016.  
*Ester Haiping, MoHSS, Namibia*
- 15:00 KAIZEN approach for proper management of healthcare waste in Singida Referral Hospital.  
*Erica Charles & Joseph Malunda – Singida Referral Hospital, Tanzania*
- 15:15 Promoting safe injection practices in injections and treatment rooms of the Cameroon Baptist Convention Health Services (CBCHS): A case study of Etougebe Baptist Hospital Yaoundé (EBHY).  
*Kongnyu Emmanuel, BTSHP, Cameroon*

15:30 – 15:45  
15:45

Discussion  
Coffee Break

#### Session 4 – One Health

*Chair: Dr. Gabriel Shirima - Tanzania*

16:15 Genesis of OH in Tanzania: Opportunities and Challenges,  
*Dr. Gabriel Shirima, Tanzania*

16:30 Toxoplasmosis: The forgotten threat in Kenya.  
*Prof. Naomi W. Maina, JKUAT, Kenya*

16:45 The One Health approach: From concept to action.  
*Awa Ndir - Senegal*

17:00  
17:15

Discussion  
Closing Day 2

## Wednesday, 27 September 2017

### 8:15 Recap of Day 2

08:30 – 09:10 Keynote:

**Challenges and Opportunities for improvement in Water, Sanitation and Hygiene in Healthcare Facilities.**  
*Ms. Hayter Arabella, WHO-Geneva*

#### Session 1 – Way forward on WASH/IPC Africa

*Chair: Mr. Robert Njee and Dr. Ibrahim Kabole - Tanzania*

08:30 Panel discussion on the way forward for WASH/IPC in HCF – Africa: Dr. Albart Komba (Tanzania), Shaheen Mehtar, Chair ICAN (South Africa), Dr. Hamisi Malebo (Tanzania), Kiwe Sebunya (Uganda/Tanzania), Joost Hopman (Netherlands), Tendayi Jubenkanda (Zimbabwe).

09:20 Next steps for ICAN/regional workshop,  
Shaheen Mehtar (ICAN).

09:35 Infection Control Africa Network (ICAN) Tanzania Chapter  
Dr. Hamisi M. Malebo & Mr. Honest Anicetus

09:50 Arrival of Guest of Honour

09:55 Summary of workshop deliberations and way forward  
Mr. Njee & the Secretariat

10:10 Closing Speech

13:15

Coffee Break (with group photo)

#### Session 2 – Writing workshop

*Facilitator: Prof. Shaheen Mehtar – ICAN Chair, Joost Hopman, ICAN, Netherlands*

11:00 Writing Workshop (Part I)/WASH IPC Technology demonstration  
*TANKO LTD*

13:15

Lunch Break

#### Session 2 – Writing workshop

14:00 Writing Workshop (Part II) Joost Hopman, ICAN, Netherlands

15:00 Close of Day 2 Sessions & Secretariat Meeting

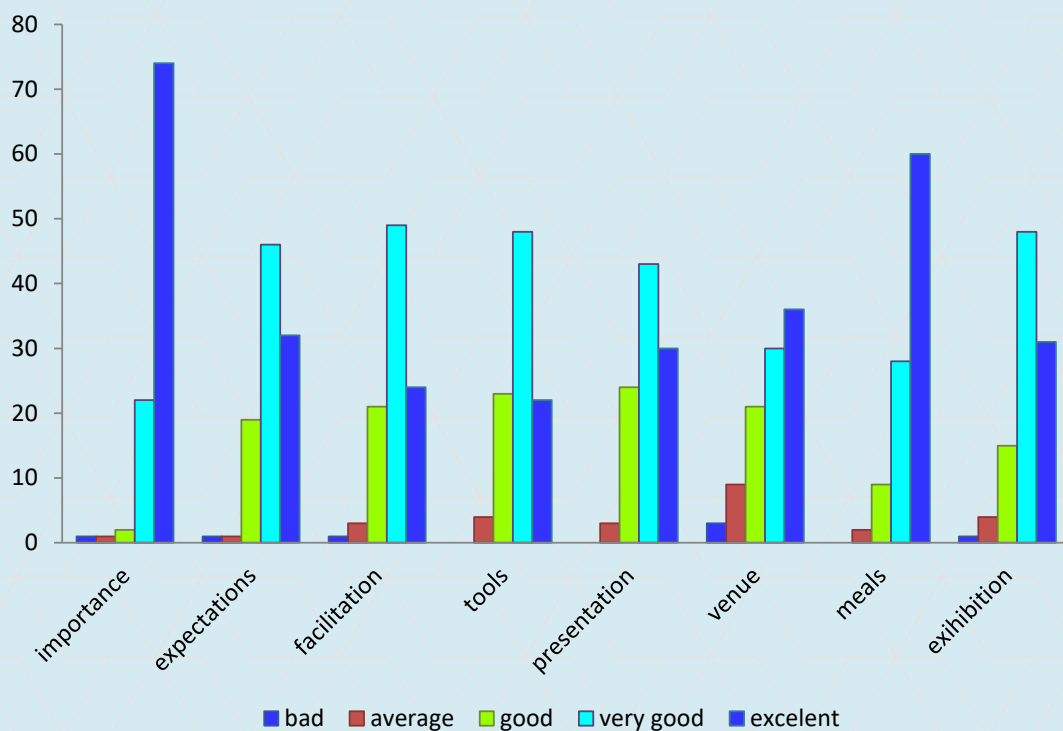
15:30 Coffee Break

## Annex II: Workshop evaluation by participants

**Table 3: Summary evaluation feedback from workshop participants by items**

Evaluation criteria	Very Bad	Average	Good	Very Good	Excellent
Importance of the workshop?	1	1	2	22	74
Are your expectation met?	1	1	19	46	32
Facilitation methodology	1	3	21	49	24
Facilitation tools well understood to participants	0	4	23	48	22
Workshop relevant to my needs	0	2	9	34	53
Presentations well organized	0	3	24	43	30
Venue comfortable for the purpose	3	9	21	30	36
Meals were suitable	0	2	9	28	60
Exhibitions were useful for learning	1	4	15	48	31
<b>Adjusted average scores</b>	<b>1</b>	<b>3</b>	<b>16</b>	<b>39</b>	<b>41</b>
99% of participants reported to have learned new knowledge from the workshop					
All participants (100%) recommended that a similar workshop be held in Tanzania on annual basis					

**Graph 1: Summary in graph from evaluation feedback data**





## Annex III: Members of organizing committee and secretariat

**Table 4: List of members of Organizing Committee and Secretariat**

S/N	Name	Organizing body	Institution
1.	Prof. Yunus Daud Mgaya	Local Organizing Committee	National Institute for Medical Research
2.	Dr. Ndekya Maria	Local Organizing Committee	National Institute for Medical Research
3.	Dr. Joseph Hokororo	Local Organizing Committee	MoHCDGEC
4.	Mr. Obedi S. Ole-Kaondo	Local Organizing Committee	National Institute for Medical Research
5.	Honest Anicetus	LOC/Secretariat	MoHCDGEC
6.	Dr. Fabian Magoma	Local Organizing Committee	Tanzania Public Health Association
7.	Dr. Hamisi M. Malebo	Local Organizing Committee	National Institute for Medical Research
8.	Prof. Shaheen Mehtar	Co-organizers and advisors to LOC	Infection Control Africa Network
9.	Prof. Valerian Robertson	Co-organizers and advisors to LOC	Infection Control Africa Network
10.	Anna Vondran	Co-organizers and advisors to LOC	Infection Control Africa Network
11.	Yolanda Gowns	Co-organizers and advisors to LOC	Infection Control Africa Network
12.	Mrs. Virdiana Mvungi	LOC/Secretariat	National Institute for Medical Research
13.	Mr. Robert Mussa	LOC/Secretariat	National Institute for Medical Research
14.	Mrs. Christa P. M. Mani	LOC/Secretariat	National Institute for Medical Research
15.	Ms. Yolanda Mbatia	LOC/Secretariat	National Institute for Medical Research
16.	Mrs. Gracia Sanga	LOC/Secretariat	National Institute for Medical Research
17.	Ms. Bupe Ndelwa	LOC/Secretariat	National Institute for Medical Research
18.	Ms. Ruth Ngowi	LOC/Secretariat	MoHCDGEC
19.	Ms. Beartice Masoli	LOC/Secretariat	Tanzania Public Health Association
20.	Ms. Upendo Kajila	Secretariat	National Institute for Medical Research
21.	Ms. Cecilia Bonaventure	Secretariat	National Institute for Medical Research
22.	Mr. Noel Lemanya	Secretariat	National Institute for Medical Research
23.	Mr. Onesmo Nyandoa	Secretariat	National Institute for Medical Research
24.	Ms. Calister Imeda	Secretariat	Transport logistics, exhibition assist
25.	Ms. Mary Mbuji	Secretariat	National Institute for Medical Research
26.	Mr. Ferdinand Wanyama	Secretariat	National Institute for Medical Research
27.	Amour Seleman	Secretariat	MoHCDGEC
28.	Priya Sippy	Local Organizing Committee	Water Aid Tanzania
29.	Ms. Uiso	Local Organizing Committee	Regional Health Officer - Arusha
30.	Dr. Bwijo Bwijo	Local Organizing Committee	UNDP
31.	Ms. Maimuna Salum	Local Organizing Committee	Tindwa Medical Services
32.	Mrs. Celina Kenny	Secretariat	National Institute for medical Research
33.	Mr. Charles Lusinde	Secretariat	National Institute for Medical Research
34.	Mr. Robert M. Kitundu	Local Organizing Committee	Consulting partner



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