THE EFFICACY OF INFECTION PREVENTION AND CONTROL COMMITTEES IN AFRICAN SETTINGS

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Hosted by Paul Webber
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www.webbertraining.com March 3, 2020

Presentation focus

- Discuss the major constraints to the success of IPC committees in Africa
- Discuss the effectiveness of IPC committees in Lesotho, southern Africa

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Africa is more vulnerable to infectious diseases; needs more IPC efforts

- Compared to other regions of the world, African countries are more vulnerable to infectious diseases
- Resilient IPC efforts constitute a critical line of defence in reducing infection.
- Health systems in Africa need to evolve fast to improve IPC.

Source: *Tackling Deadly Diseases in Africa Programme report of the WHO; Workshop in Kampala, Uganda, 2018*

Bridging the infection prevention and control (IPC) gap between theory and implementation - An African experience

S. Mehtar

Stellenbosch University, Stellenbosch, South Africa

The burden of healthcare associated disease in Africa is up to twenty times higher than high income countries. South Africa is fortunate in having strong support from the National Department of Health which is not necessarily the case in other African countries.

- IPC is being spearheaded by the Infection Control Africa Network (ICAN)
- Stellenbosch University has developed a training programme in IPC. This basic IPC course is being developed into distance learning as well as tele-classes in African languages.

Current IPC situation in Africa

- 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;
- 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.

Source: *Tackling Deadly Diseases in Africa Programme report of the WHO; Workshop in Kampala, Uganda, 2018*

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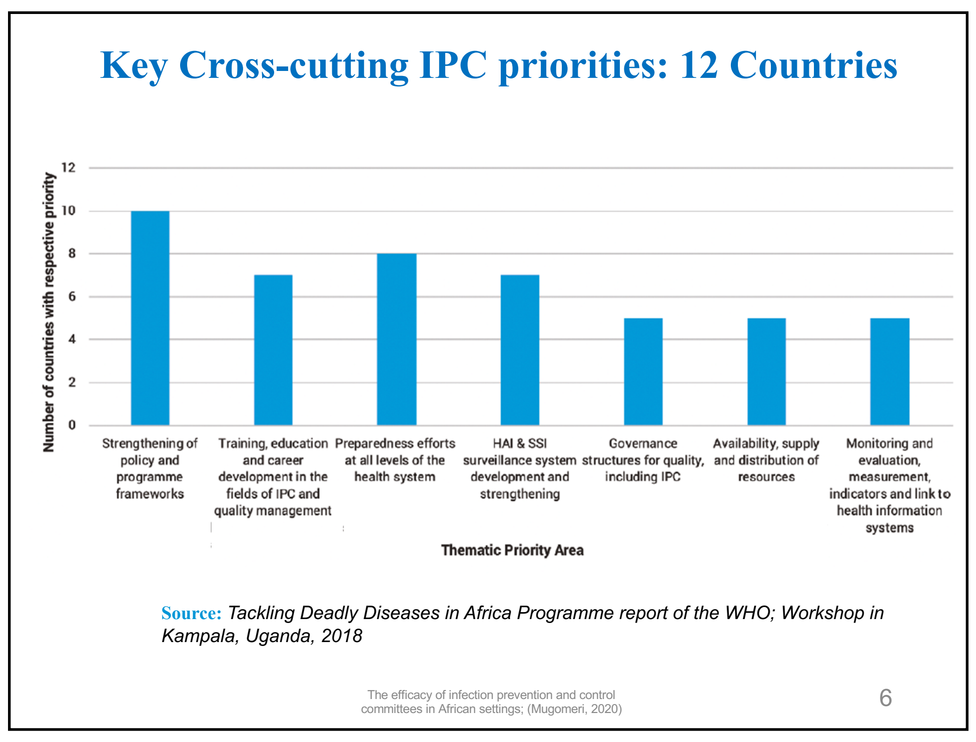
Key Cross-cutting IPC priorities: 12 Countries



Source: *Tackling Deadly Diseases in Africa Programme report of the WHO; Workshop in Kampala, Uganda, 2018*

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Main challenges to implement IPC in low- and middle-income countries

- HAIs and IPC not on the top of the national health agenda
- Gap between policy and actual implementation
- Lack of reliable data on HAIs (poor laboratory support and surveillance systems)
- Limited access to qualified and trained IPC professionals
- Limited human resources (understaffing)
- Inadequate budgets
- WASH and infrastructure gaps
- Supplies procurement challenges
- Need for adaptation or tailoring to the cultural setting and local context, and according to available resources

- *Allegranzi B et al. The Lancet 2011;377:228-41*
- *National and facility manuals supporting the implementation resources of the WHO IPC Core Components Guidelines (http://www.who.int/infection-prevention/tools/core-components/en/)*
- *M. Licker et al. J Hosp Infect 2017; 85e88*

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Making improvement with limited resources

- Damani highlights three approaches to improve IPC in settings with limited resources:
  - focus on improving **no-cost** practices
  - focus on improving **low-cost** practices
  - **stop wasteful and unnecessary** practices.
- These three approaches have the potential to save money, time and improve the quality and safety of health care.

http://www.who.int/infection-prevention/tools/core-components/cc-implementation-guideline.pdf?ua=1

Damani N. Simple measures save lives: an approach to infection control in countries with limited resources. J Hosp Infect. 2007;65(Suppl. 2):151-154.

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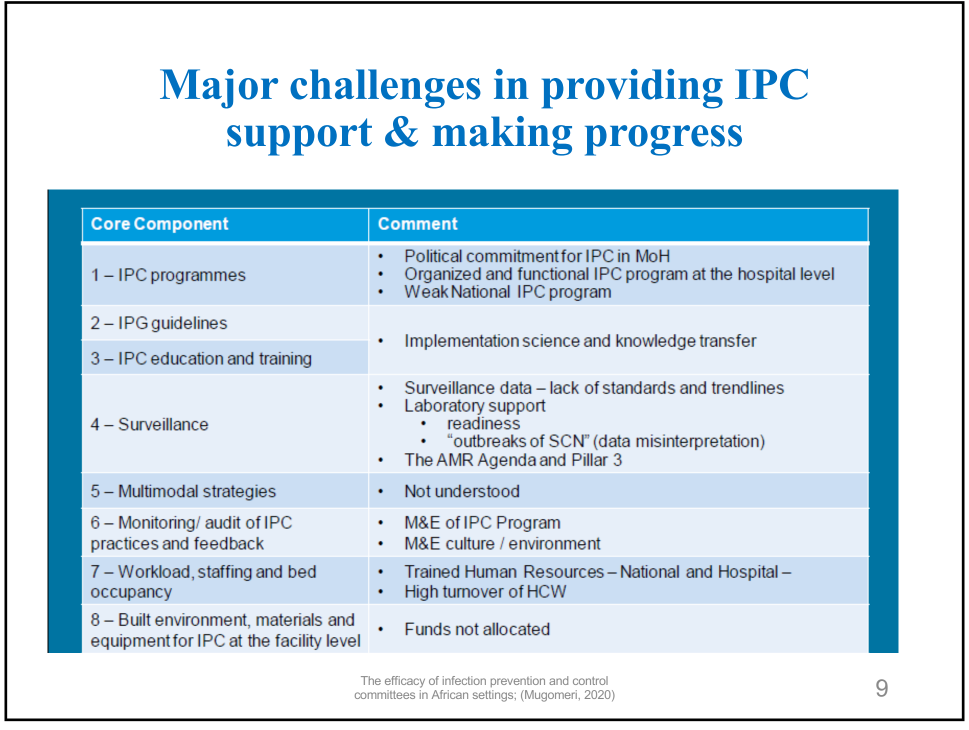

Major challenges in providing IPC support & making progress

Core Component	Comment
1 – IPC programmes	• Political commitment for IPC in MoH • Organized and functional IPC program at the hospital level • Weak National IPC program
2 – IPG guidelines	• Implementation science and knowledge transfer
3 – IPC education and training	

4 – Surveillance	• Surveillance data – lack of standards and trendlines
	• Laboratory support
	  • readiness
	  • "outbreaks of SCN" (data misinterpretation)
	• The AMR Agenda and Pillar 3

5 – Multimodal strategies	• Not understood
6 – Monitoring/ audit of IPC practices and feedback	• M&E of IPC Program • M&E culture / environment
7 – Workload, staffing and bed occupancy	• Trained Human Resources – National and Hospital – • High turnover of HCW
8 – Built environment, materials and equipment for IPC at the facility level	• Funds not allocated

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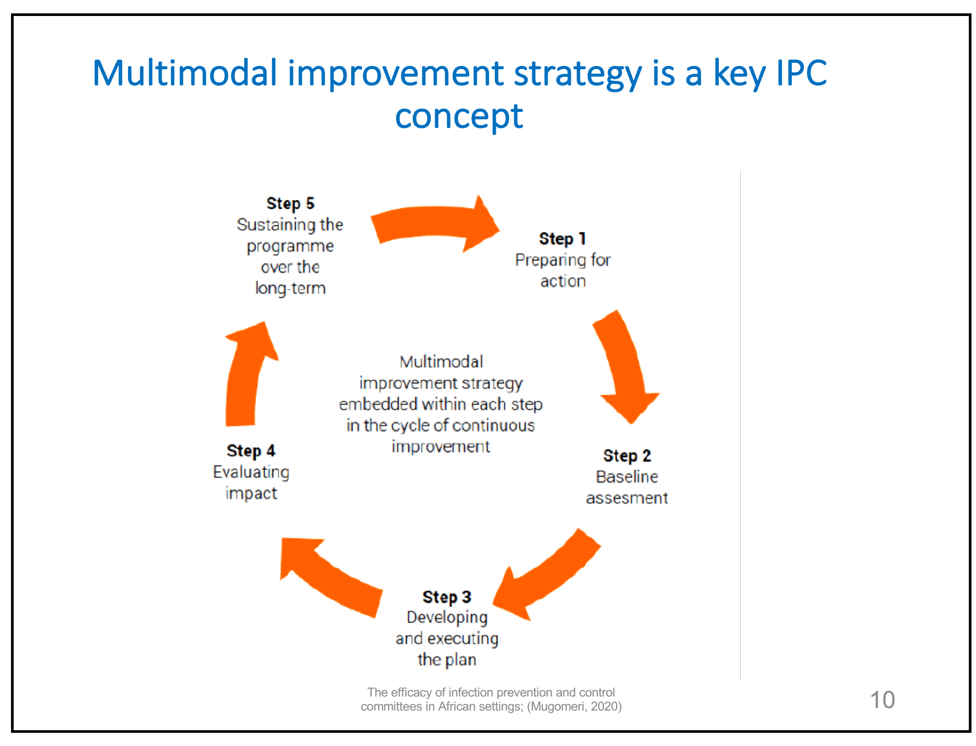

WHO multimodal improvement strategy

Multimodal implementation strategies are a core component of effective infection prevention and control (IPC) programmes according to the WHO Guidelines on Core Components of IPC programmes at the National and Acute Health Care Facility Level.

The guidelines' **recommendation** 5 states that IPC activities using multimodal strategies should be implemented to improve practices and reduce HAI and AMR. In practice, this means the use of multiple approaches that in combination will contribute to influencing the behaviour of the target audience (usually health care workers) towards the necessary improvements that will impact on patient outcome and contribute to organizational culture change. Implementation of IPC multimodal strategies needs to be linked with the aims and initiatives of quality improvement programmes and accreditation bodies both at the national and facility levels.

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Five elements for IPC multimodal strategies

1. the **system change** needed to enable IPC practices, including infrastructure, equipment, supplies and other resources;
2. **training and education** to improve health worker knowledge;
3. **monitoring and feedback** to assess the problem, drive appropriate change and document practice improvement;
4. **reminders and communications** to promote the desired actions, at the right time, including campaigns;
5. a **culture of safety** to facilitate an organizational climate that values the intervention, with a focus on involvement of senior managers, champions or role models.

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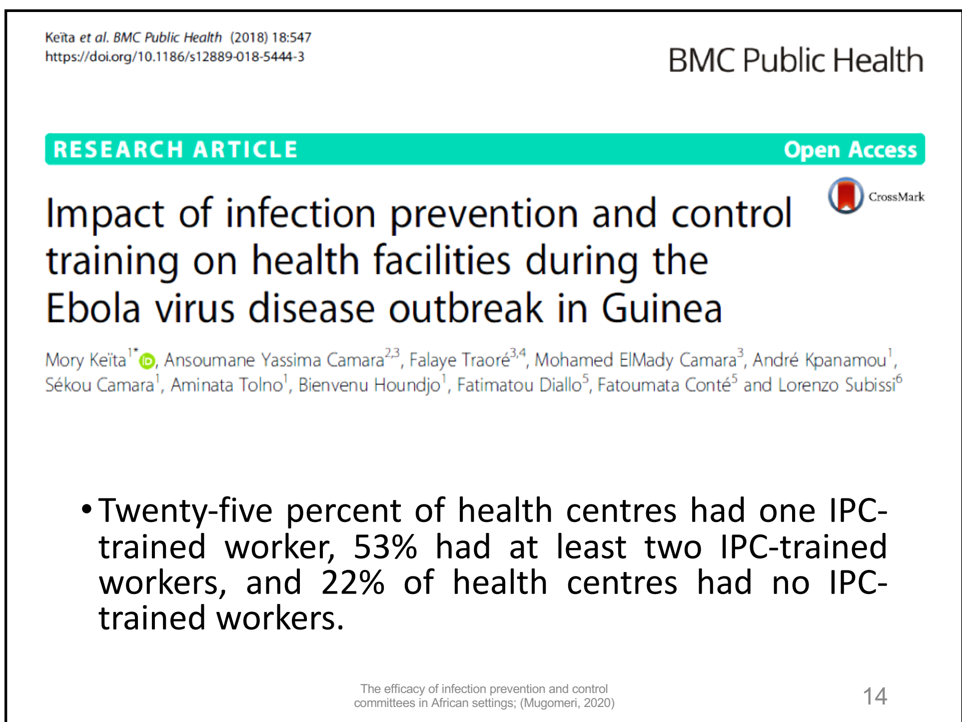
Keïta et al. BMC Public Health (2018) 18:547
https://doi.org/10.1186/s12889-018-5444-3

BMC Public Health

RESEARCH ARTICLE Open Access

Impact of infection prevention and control training on health facilities during the Ebola virus disease outbreak in Guinea

Mory Keïta[1*], Ansoumane Yassima Camara[2,3], Falaye Traoré[3,4], Mohamed ElMady Camara[3], André Kpanamou[1], Sékou Camara[1], Aminata Tolno[1], Bienvenu Houndjo[1], Fatimatou Diallo[5], Fatoumata Conté[5] and Lorenzo Subissi[6]

- Twenty-five percent of health centres had one IPC-trained worker, 53% had at least two IPC-trained workers, and 22% of health centres had no IPC-trained workers.

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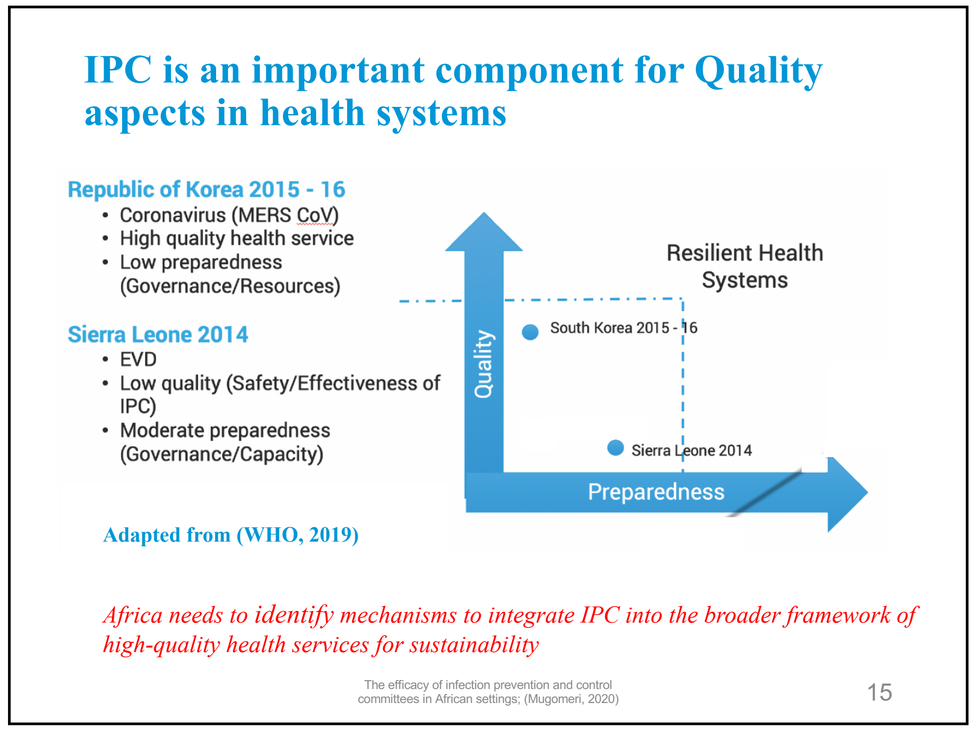
IPC is an important component for Quality aspects in health systems
Republic of Korea 2015 - 16
• Coronavirus (MERS CoV)
• High quality health service
• Low preparedness (Governance/Resources)
Sierra Leone 2014
• EVD
• Low quality (Safety/Effectiveness of IPC)
• Moderate preparedness (Governance/Capacity)
Quality
Resilient Health Systems
South Korea 2015 - 16
Sierra Leone 2014
Preparedness
Adapted from (WHO, 2019)
Africa needs to identify mechanisms to integrate IPC into the broader framework of high-quality health services for sustainability
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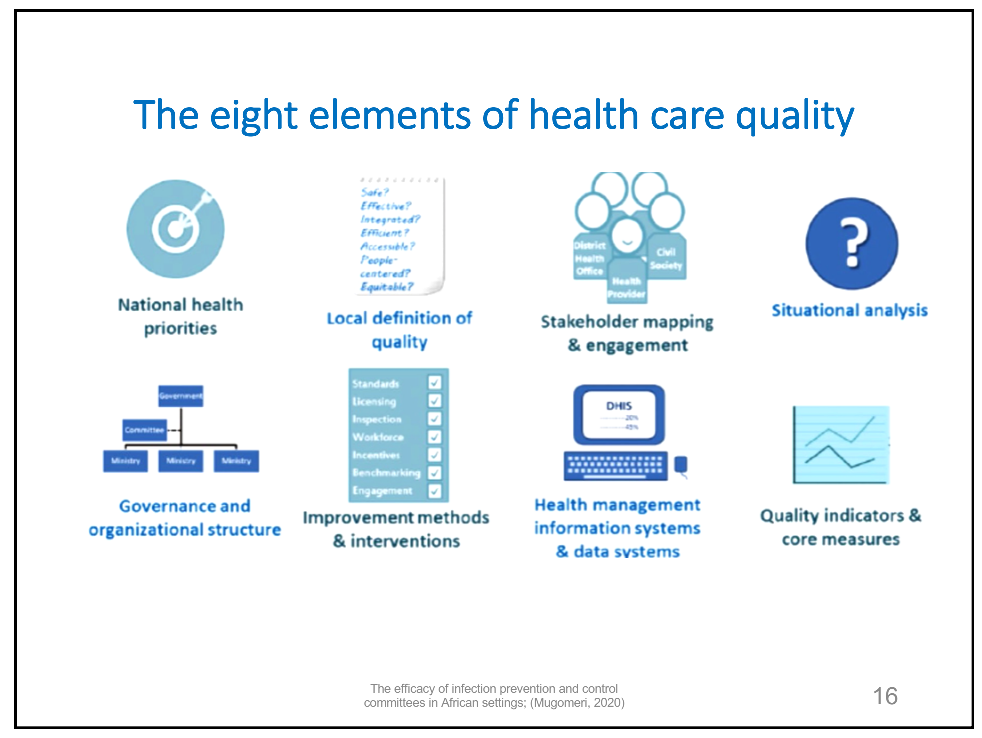
The eight elements of health care quality
National health priorities
Local definition of quality
Stakeholder mapping & engagement
Situational analysis
Governance and organizational structure
Improvement methods & interventions
Health management information systems & data systems
Quality indicators & core measures
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Research

Observations of infection prevention and control practices in primary health care, Kenya

Guadalupe Bedoya,[a] Amy Dolinger,[a] Khama Rogo,[b] Njeri Mwaura,[b] Francis Wafula,[b] Jorge Coarasa,[c] Ana Goicoechea[d] & Jishnu Das[a]

Bull World Health Organ 2017;95:503–516 | doi: http://dx.doi.org/10.2471/BLT.16.179499

Compliance ranged from 2% for hand hygiene to 80% for injection and blood sampling safety.

Compliance was associated with the facility's characteristics (e.g. public or private, or level of specialization) and the health-care worker's knowledge of, and training in IPC.

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Available online at www.sciencedirect.com

Journal of Hospital Infection

journal homepage: www.elsevier.com/locate/jhin

Barriers and opportunities experienced by staff when implementing infection prevention and control guidelines during labour and delivery in healthcare facilities in Nigeria

H. Buxton[a], E. Flynn[b], O. Oluyinka[c], O. Cumming[a], J. Esteves Mills[a], T. Shiras[a], S. Sara[d], R. Dreibelbis[a,*]

Areas of concern included effectiveness of training, inadequate availability of personal protective equipment, inadequate hand hygiene practices, and outdated procedures to reprocess re-usable medical equipment.

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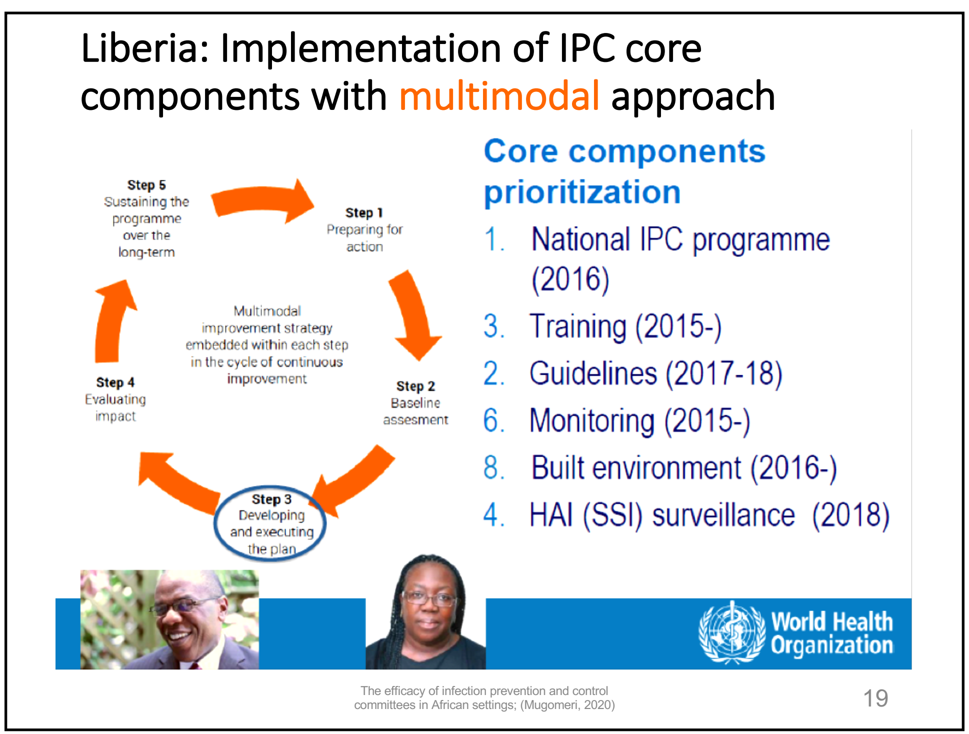
Liberia: Implementation of IPC core components with multimodal approach
Step 5
Sustaining the programme over the long-term
Step 1
Preparing for action
Multimodal improvement strategy embedded within each step in the cycle of continuous improvement
Step 2
Baseline assesment
Step 4
Evaluating impact
Step 3
Developing and executing the plan
Core components prioritization
1. National IPC programme (2016)
3. Training (2015-)
2. Guidelines (2017-18)
6. Monitoring (2015-)
8. Built environment (2016-)
4. HAI (SSI) surveillance (2018)
World Health Organization
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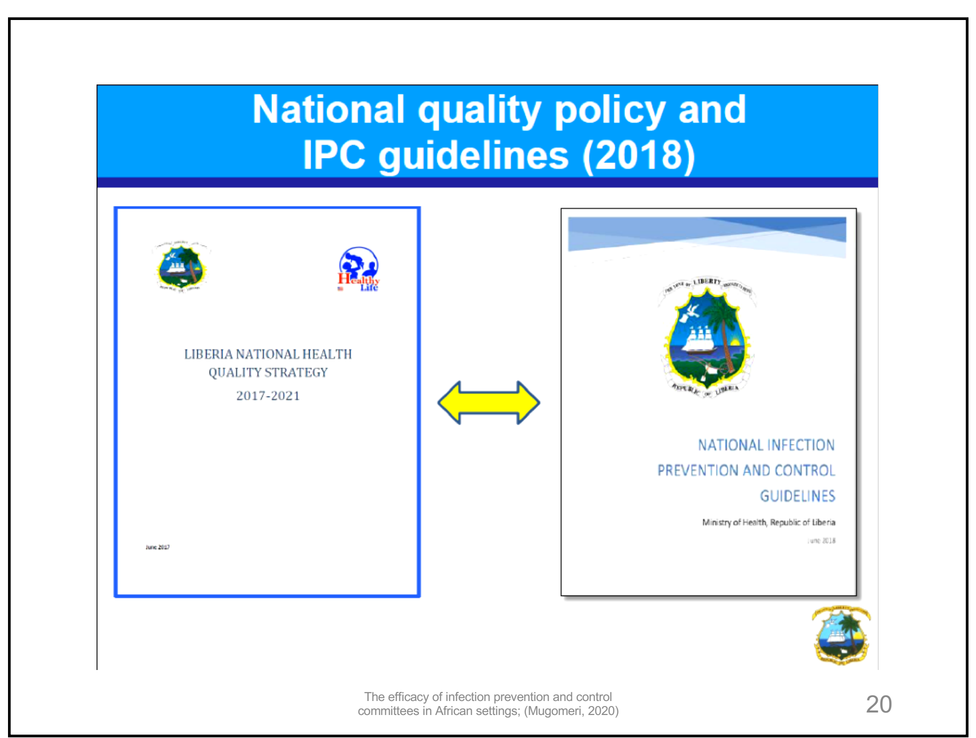
National quality policy and IPC guidelines (2018)
LIBERIA NATIONAL HEALTH QUALITY STRATEGY
2017-2021
NATIONAL INFECTION PREVENTION AND CONTROL GUIDELINES
Ministry of Health, Republic of Liberia
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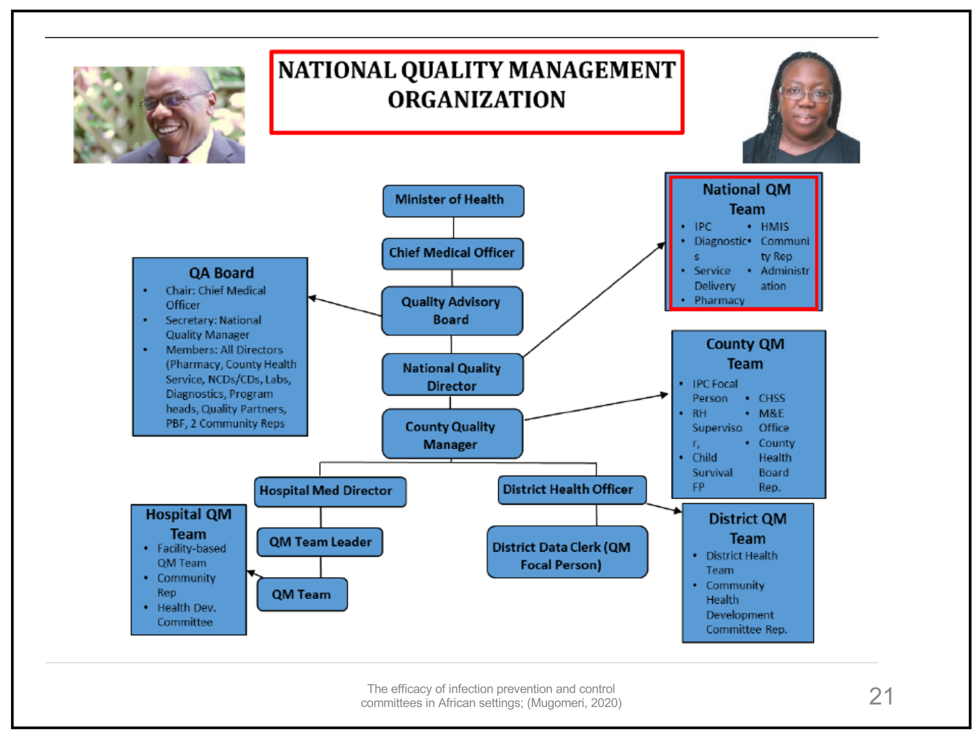
NATIONAL QUALITY MANAGEMENT ORGANIZATION
Minister of Health
Chief Medical Officer
Quality Advisory Board
National Quality Director
County Quality Manager
QA Board
Chair: Chief Medical Officer
Secretary: National Quality Manager
Members: All Directors (Pharmacy, County Health Service, NCDs/CDs, Labs, Diagnostics, Program heads, Quality Partners, PBF, 2 Community Reps
National QM Team
IPC
HMIS
Diagnostics
Community Rep
Service Delivery
Administration
Pharmacy
County QM Team
IPC Focal Person
CHSS
RH Supervisor,
M&E Office
County Health Board Rep.
Child Survival FP
Hospital Med Director
District Health Officer
Hospital QM Team
Facility-based QM Team
Community Rep
Health Dev. Committee
QM Team Leader
QM Team
District Data Clerk (QM Focal Person)
District QM Team
District Health Team
Community Health Development Committee Rep.
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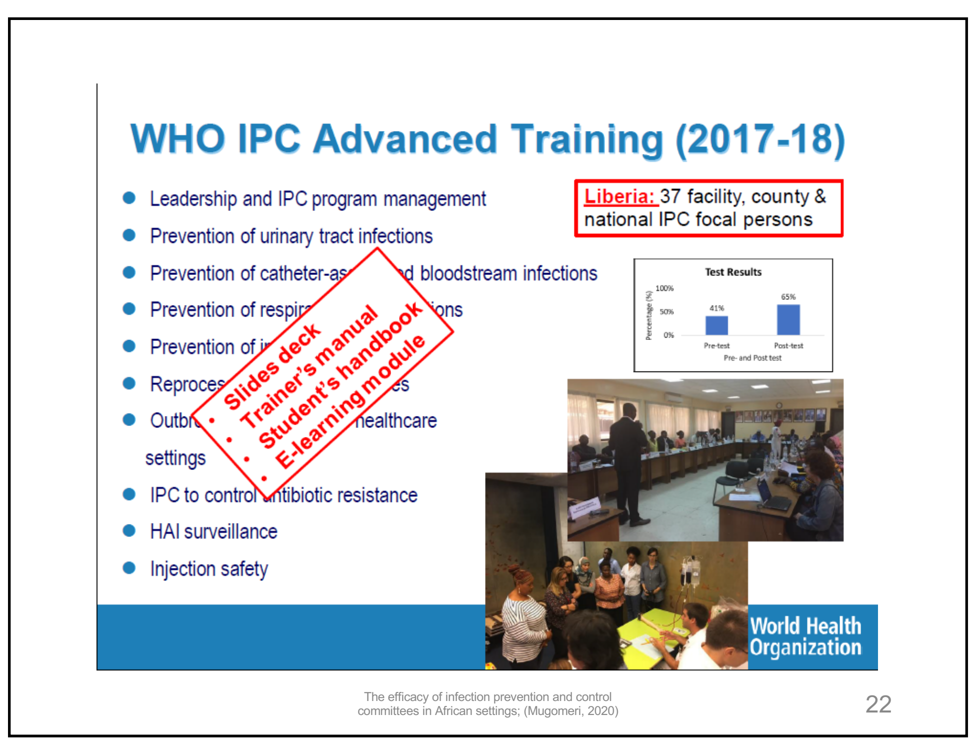
WHO IPC Advanced Training (2017-18)
Leadership and IPC program management
Prevention of urinary tract infections
Prevention of catheter-as... bloodstream infections
Prevention of respir... ions
Prevention of i...
Reproces... es
Outbr... healthcare settings
IPC to control antibiotic resistance
HAI surveillance
Injection safety
Slides deck
Trainer's manual
Student's handbook
E-learning module
Liberia: 37 facility, county & national IPC focal persons
Test Results
100%
50%
0%
41%
65%
Pre-test
Post-test
Pre- and Post test
World Health Organization
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Key Staff and Groups Involved in Infection Prevention and Control Programs

- Administrative leadership
- IPC committee
- Task forces/working groups
- Organizational oversight from top facility leadership
- National or regional public health authorities, including the national or regional IPC agency

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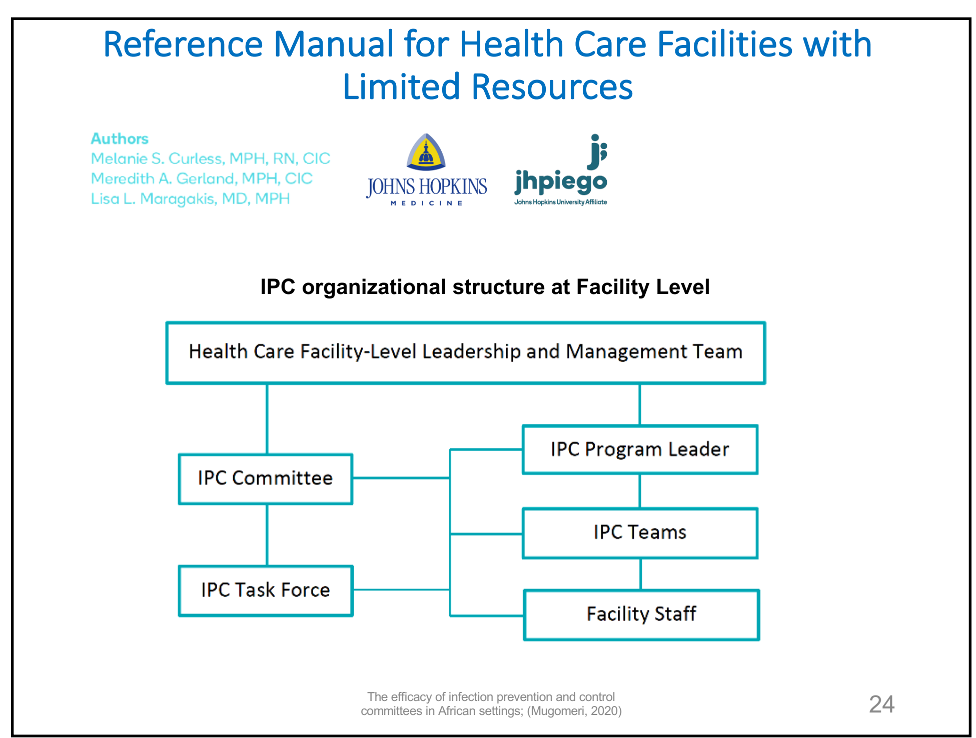
Reference Manual for Health Care Facilities with Limited Resources



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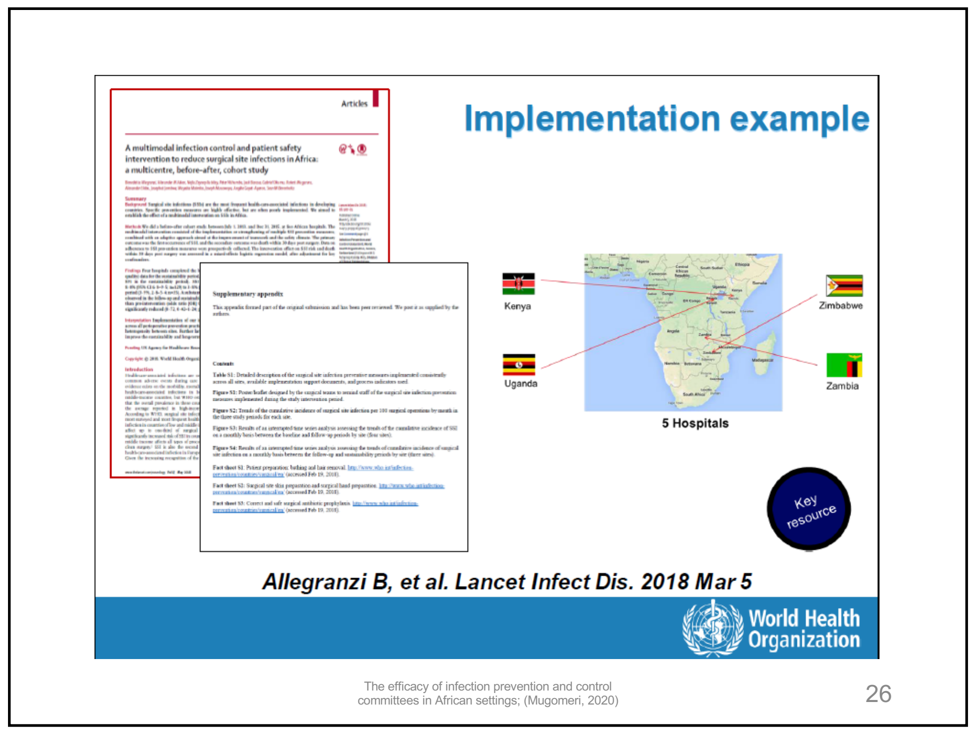
THE NATIONAL INFECTION PREVENTION AND CONTROL POLICY & STRATEGY

April 2007

Governance

1. The national Department of Health, Directorate: Infection Prevention & Control
2. The Provincial Infection Prevention & Control Committee/ Unit
3. The District Infection Prevention & Control Committee
4. The facility-based (institutional) Infection Prevention & Control Committee

The committee should comprise of at least the officer in charge IPC in the facility, a microbiologist, and heads of all relevant medical disciplines…



BMJ Global Health

Creation of a national infection prevention and control programme in Sierra Leone, 2015

Hossinatu Kanu,[1] Kathryn Wilson,[2] Nanah Sesay-Kamara,[1] Sarah Bennett,[3] Shaheen Mehtar,[4] Julie Storr,[5] Benedetta Allegranzi,[5] Hassan Benya,[3] Benjamin Park,[2] Amy Kolwaite[2]

Prior to the 2014–2016 Ebola epidemic, Sierra Leone's Ministry of Health and Sanitation had no IPC programme.

High rates of Ebola virus disease transmission in healthcare facilities underscored the need for IPC in the healthcare system.

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IPC in Kenya

- Ebola threat in 2000/01 and WHO support
- MOH in collaboration with CDC/JSI 2004
  - Established, revived, and improved IPC activities
  - Focus – waste management, injection safety and public education on risks.
    - Training of health care workers:
      - Managers
      - 1st line health care workers
      - Waste handlers
  - Provision of resources
    - Safety boxes
    - Bins and bin liners
    - Supply of syringes and needles

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Okwor *et al. Antimicrobial Resistance and Infection Control* 2015, **4**(Suppl 1):O11
http://www.aricjournal.com/content/4/S1/O11

ORAL PRESENTATION Open Access

Identifying infection prevention and control gaps in healthcare facilities operating in Rivers state during the EVD outbreak in Nigeria 2014

TJ Okwor[1*], C Tobin-West[2], O Oduyebo[3], N Anayochukwu-Ugwu[4], O Adebola[4], F Shuaib[4], O Idigbe[5], F Ogunsola[3]

From 3rd International Conference on Prevention and Infection Control (ICPIC 2015)
Geneva, Switzerland. 16-19 June 2015

- Two tertiary, twenty four public secondary and sixty six private secondary health facilities were studied.
- Only one of the tertiary healthcare facilities had an IPC committee in place with a focal officer in charge. Only one hospital had an IPC policy which was not operational. None of the health facilities had a good score for both IPC materials availability and practice

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Contents lists available at ScienceDirect

American Journal of Infection Control

journal homepage: www.ajicjournal.org

Major Article

The efficacy of infection prevention and control committees in Lesotho: A qualitative study

Eltony Mugomeri MTech *
Department of Pharmacy, Faculty of Health Sciences, National University of Lesotho, Maseru, Lesotho

This study qualitatively evaluated the effectiveness of IPC committees in the southern African country of Lesotho with the aim of identifying themes for policy discourse on improving IPC practice in the country.

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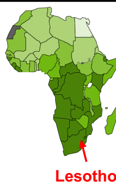
Lesotho setting



The IPC program in Lesotho is steered by the Quality Assurance Office in the MoH.

Main focal areas are; surgical site infections, antimicrobial stewardship, HAIs, and tuberculosis (TB) IPC.

The IPC committee at the referral hospital consists of unit managers, is headed by the operations director and a full-time IPC nurse with IPC training.

At district hospitals, IPC committees consist of representatives from major hospital departments.

District IPC committee are headed by IPC nurses who have other nursing duties and hold no special IPC qualifications

METHODS

- Data gathered through open interviews with key informants (IPC committee members & relevant officials at the Ministry of Health),
- Data analysis – Thematic coding based on Grounded Theory.

RESULTS

IPC committees were largely ineffective due to five major barriers:

- **Poor sense of competence**

  Leadership for training?

- **Administrative constraints**

  Leadership for policy implementation?

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RESULTS (Cont…)

- **Financial support**

  Staffing, facilities and materials?

- **Role uncertainty**

  "Most members of the IPC committee are not quite sure of their responsibilities."

- **Negative staff attitudes**

  "Because of time limitations, naturally, we prioritise our official duties over IPC responsibilities."

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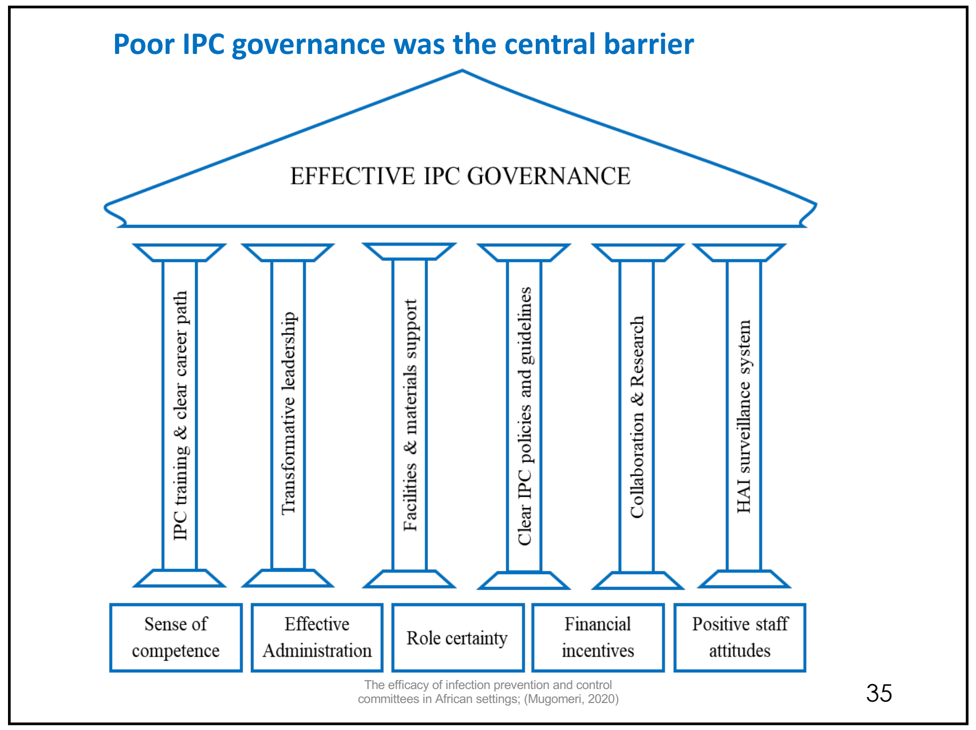

Key lessons leant

- Effective IPC governance is key to improving the IPC program in Lesotho.
- Effective IPC leadership is needed to steer the IPC program in the country.

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www.webbertraining.com/schedulep1.php

Date	Teleclass
March 12, 2020	(FREE Teleclass) THE BUZZ AROUND MOSQUITOES AND MOSQUITO-BORNE DISEASES Speaker: **Dr. Marcia Anderson**, Environmental Protection Agency
March 19, 2020	INFECTION PREVENTION AND CONTROL IN HOME CARE AND HOSPICE: COMMON COMPLIANCE ISSUES Speaker: **Mary McGoldrick**, Home Health Systems, Inc.
April 16, 2020	WATERBORNE PATHOGENS: WHY IS THEIR PROFILE CHANGING? Speaker: **Prof. Syed A Sattar**, Centre for Research on Environmental Microbiology, Canada
April 29, 2020	(South Pacific Teleclass) SHARPS INJURIES - WHY AREN'T WE AT ZERO? Speaker: **Terry Grimmond**, Grimmond and Associates, New Zealand
April 30, 2020	BEYOND HIGH-TOUCH SURFACES: PORTABLE EQUIPMENT, FLOORS AND CLOTHING AS POTENTIAL SOURCES OF TRANSMISSION OF HAI PATHOGENS Speaker: **Dr. Curtis Donskey**, Louis Stokes VA Medical Center, Cleveland, Ohio
May 4, 2020	(FREE Teleclass – Broadcast live from the IPAC Canada conference) MAKING CHANGE HAPPEN WITH A BUSINESS CASE Speaker: **Brendalynn Ens**, Director, Implementation Support & Knowledge Mobilization, Canadian Agency for Drugs and Technologies in Health

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