

Infection Prevention and Control in Healthcare Facilities in West Africa

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Standard Precautions in Healthcare

- ❑ **Hand hygiene**
- ❑ **Sharps safety, safe injection practices**
- ❑ **PPE: guided by risk assessment**
- ❑ **Environmental cleaning and disinfection and/or sterilization, including surfaces and reusable equipment**
- ❑ **Waste management and disposal**
- ❑ **Respiratory hygiene and cough etiquette**

Overview of Health Facilities in Countries Highly Affected by Ebola



- Hospitals, peripheral health units
- Initial presentation to health system
- Care by local providers with limited Ebola-specific training



- Case isolation and treatment
- Care by local /international professionals
- Often the focus for treatment guidelines, training, supplies

All are potential sites for transmission of Ebola if adequate training, quality assurance, and PPE are not available

Transmission of Ebola in Healthcare Facilities

- ❑ **Early in outbreak, clusters of Ebola virus disease in healthcare facilities**
 - HCWs at approximately 100-fold risk vs. general population
 - Additional transmission in healthcare and the community
- ❑ **Often due to poor knowledge / adherence to infection prevention and control (IPC) practices**
- ❑ **Lack of national IPC plan**
- ❑ **Resulted in:**
 - Facility/ community transmission
 - Loss of healthcare workers
 - Interruption of health services
 - Fear and distrust in health system

Healthcare Worker Infections		
Country	Cases	Deaths
Guinea	187	94
Liberia	374	188
Sierra Leone	303	221
Total	864	503

WHO Ebola Situation Report: April 15, 2015

Pictures from facilities with recent healthcare worker deaths

Walkway outside facility



Staff and patient toilet



Bloody medical waste on the sidewalk



Dumping on the neighbors



Burial team

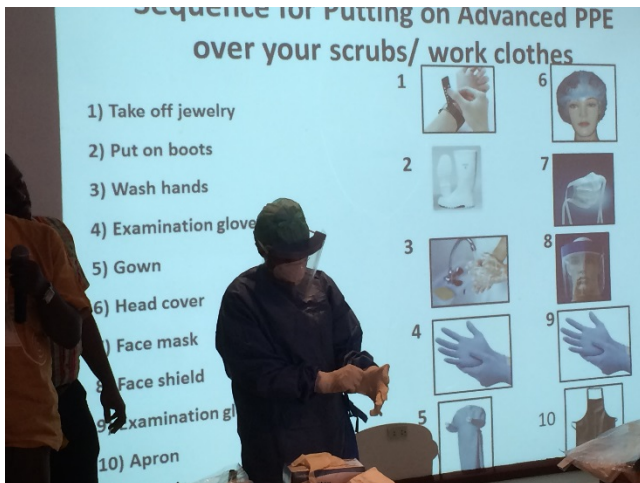


Ebola Heroes



IPC Task Force in Liberia: Keep Safe, Keep Serving

- ❑ **Coordinate and provide technical assistance to partners**
 - In-country SOPs (e.g. triage, isolation, PPE)
 - Routine facility assessments and corrective recommendations
 - Rapid response to healthcare worker infections
- ❑ **Develop materials**
 - IPC courses aimed at training healthcare workers and IPC specialists
 - Facility assessment tools and checklists
- ❑ **Build local IPC capacity and support safe restoration of health services**



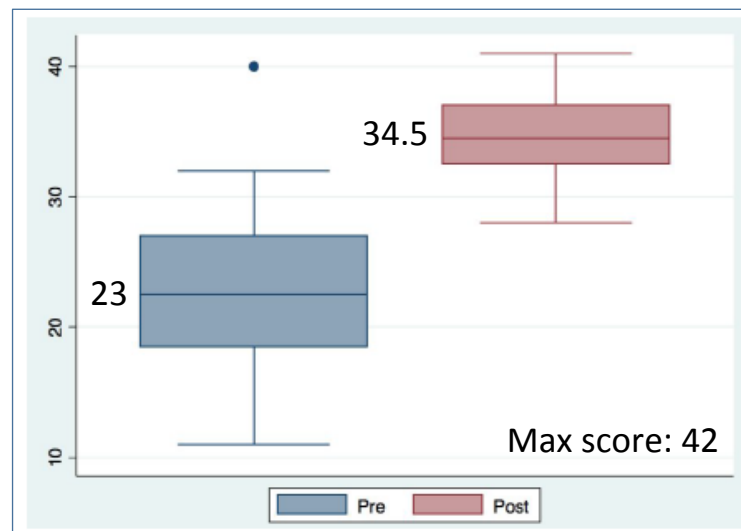
Impact of IPC Efforts in Liberia

- ❑ Established national guidance; forum to exchange successes
- ❑ Numerous anecdotes of improved IPC practices:
 - Successful triage of last confirmed case of Ebola in Liberia
 - Early success from ACCEL (Academic Consortium Combating Ebola in Liberia):

Improvement in Health Facility “Minimum Standards” Scores

Facility improvements:

- IPC focal person/ committee
- Daily triage
- Availability of PPE/ supplies
- SOPs for isolation, lab safety, waste management, etc.



Impact of IPC Efforts in Liberia: ACCEL



Informal waste collection area replaced with burn pit



Building chlorine mixing stations and shelving for PPE storage on the wards

IPC Efforts in Highly-Affected Countries

Metric	Guinea	Liberia	Sierra Leone	Total
Active IPC specialists	96	25	23	145
Hospitals with active IPC specialists	19/45	22/23	23/23	65/93
Master trainers (train frontline HCW)	201	200	364	765
Total HCW trained in IPC	8,890	8,238	7,487	24,615
Facility assessments performed to date	46	202	187	435

As of April 16, 2015

Getting to (and Staying at) Zero

❑ Challenges

- Ensuring consistent adherence to recommended IPC practices: role for infection preventionists and supportive supervision
- Some healthcare worker complacency
- Non-ministry facilities poorly enumerated and unregulated
- PPE supplies improving, but still problematic

❑ Lessons Learned and Next Steps

- Infection control is about human capacity, not just supplies
- Extremely challenging to rapidly create IPC where previously none
- Culture of safety needs to be fostered across health system (IPC is not just an Ebola-specific strategy)
- Recovery planning: opportunity to install infection control infrastructure that will benefit country in future