

PERSON OF THE YEAR TIME

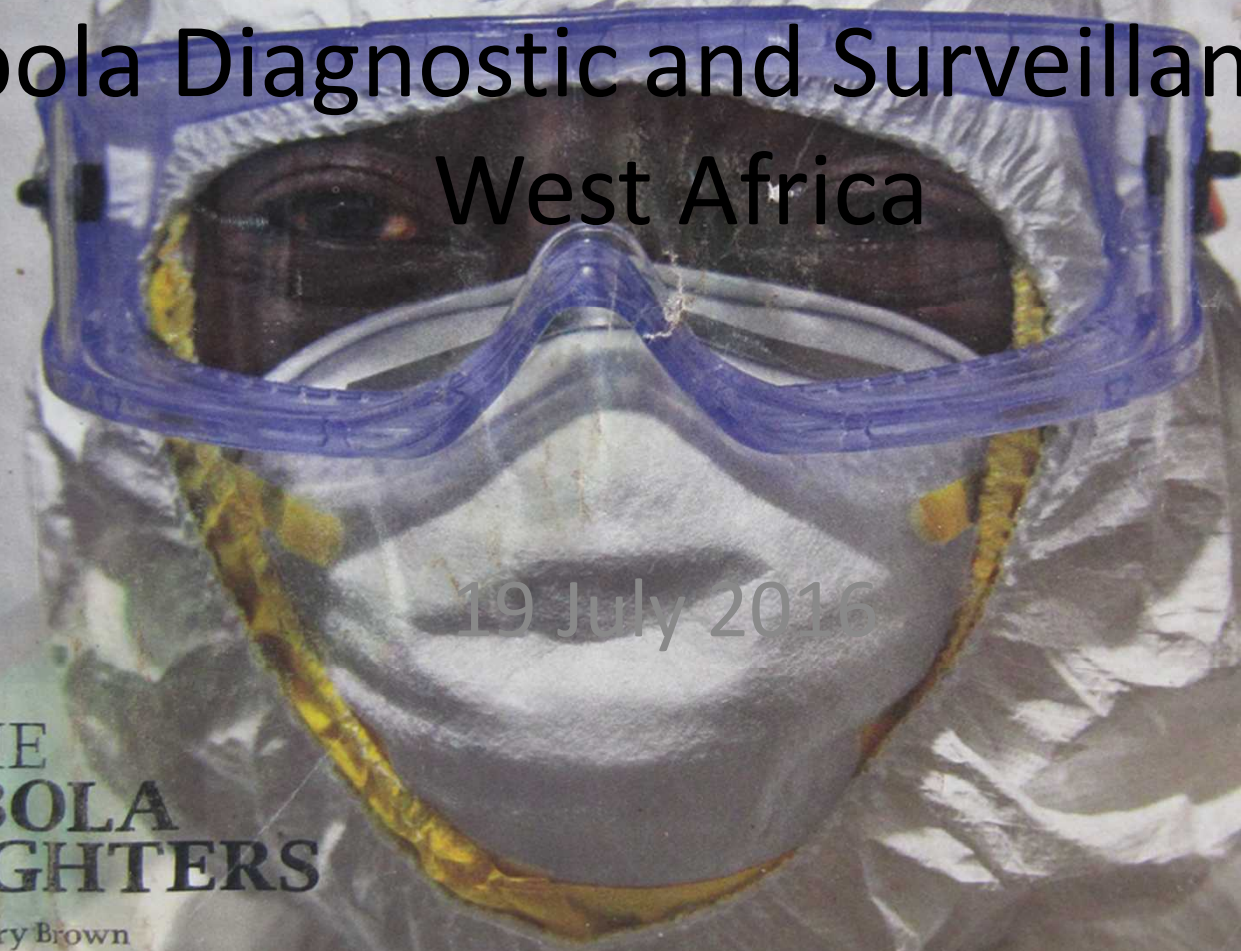
SAND2016-5823C

Ebola Diagnostic and Surveillance in West Africa

19 July 2016

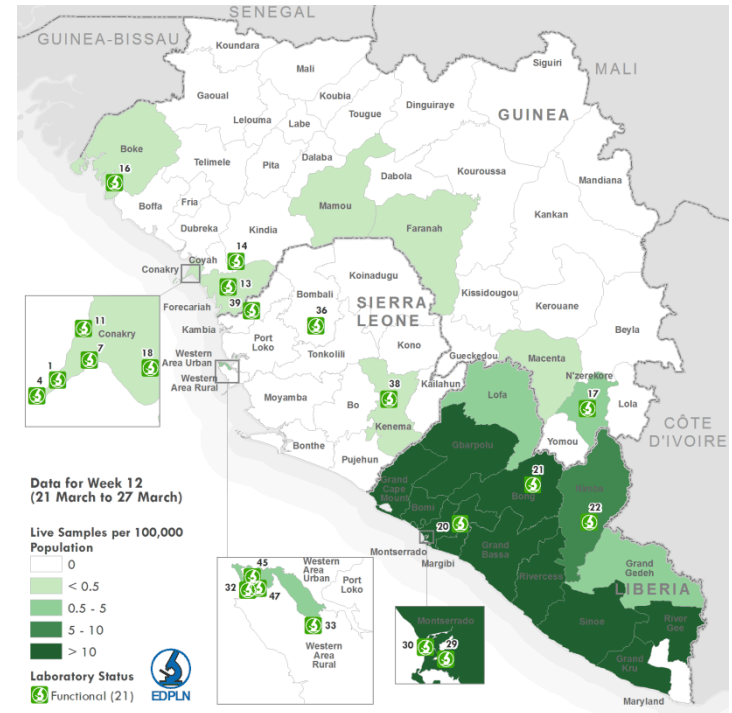
THE EBOLA FIGHTERS

Dr. Jerry Brown
The Liberian surgeon,
46, turned his hospital's
chapel into an Ebola



- Public Health Emergency of International Concern lifted 29 March 2016
 - 28,616 confirmed, probable, suspected cases
 - 11,310 deaths
 - >10,000 survivors
- WHO declared end of the (last) outbreak in Guinea and Liberia on 1 June and 9 June 2016 respectively (42 days since last negative)

- Initial diagnosis difficult
 - New to West Africa
 - Malaria or yellow fever
- Remote areas difficult to reach
 - Initial cases went undiagnosed for months
 - Mysterious disease realized in December 2013 but not diagnosed as Ebola until March 2014
 - Initially thought to be cholera (symptomology)



http://apps.who.int/ebola/sites/default/files/thumbnails/image/sitrep_lab_alive_lab_locations_22.png?ua=1

International Partners

- External capacity required for diagnostics and treatment
- England, France, WHO, MSF, EU, United States, Canada, S. Africa, Nigeria, China, Russia, and other countries and agencies

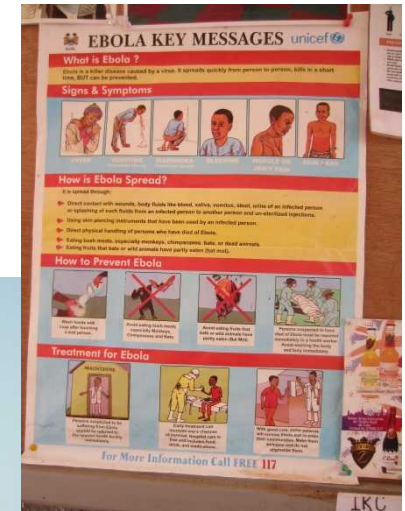


Ebola Treatment Centers



Efforts

- Signs
- Call Centers
- Posters
- Music



Surveillance

- Community engagement
 - Disbelief and rumors
 - Ebola isn't real
 - White people started the outbreak
 - Fearful
 - Hide from surveillance teams
 - Refuse to go to ETC
 - Culture
 - Natural healers
 - Voodoo
 - Burials
 - Try to smuggle corpses out of areas using taxis and cars
- Surveillance
 - Contact tracing
 - Identifying the people requiring tracing
 - Not necessarily conducted face to face
 - Quarantine and enforcement
 - Escape quarantine

Diagnostics

– Samples

- Documentation (Patient information)
 - Same names
 - Unique patient identification numbers
 - » Implemented more than a year after the outbreak started
 - » Not implemented consistently
- Transported to lab days after collection
 - Cold chain
 - Unreliable transportation
- Sample distribution

– Diagnostics

- Supply chain
 - Getting supplies into the country
- Sharing supplies between labs
 - Different diagnostic tests
- Results reporting and contact tracing follow up

Surveillance Continuum

- Recognize there is a problem
- Diagnose
 - Sample collection
 - Transportation to laboratory with capacity
 - Differentials
 - Results reporting
- Outbreak control measures
 - Identify the potential for transmission
 - Contact tracing
 - Treatment
- Follow up

