IMPLEMENTING ICAO PHE PREPAREDNESS AND EBOLA EXPERIENCE IN NIGERIA

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INTRODUCTION

NIGERIA

- Total land mass - 923,768 sq km (356,669 sq mi)
- Population over 173 Million (most populous black nation)
- Indigenous Languages - 521
- Official Language - English
AVIATION ACTIVITY - AIRPORTS

- No. of Civil Airports – 28
- No. of Airstrips – 13
- No. of Military Airports - 2
- Four Major International Airports:
  - Murtala Muhammed International Airport, Lagos – int’l pax – 3,265,721 per annum (March 2014 – March 2105)
  - Nnamdi Azikiwe International Airport Abuja – int’l pax – 845,983
  - Malam Aminu International Airport, Kano – int’l pax – 223,982
  - Port Harcourt International Airport, Port Harcourt – int’l pax – 112,109
CAPSCA AFRICA PROJECT ASSISTANCE

- Nigeria joined CAPSCA in August 2008
- 1st ICAO CAPSCA Airport Assistance Visit to Lagos and Abuja airports (first in Africa) and Steering committee meeting, 9th - 13th Feb. 2009:
  - Multi-sectoral collaboration encouraged
  - H1N1 Pandemic of 2009 - re-inforced collaboration among aviation stakeholders
  - Checklist and PHE procedures developed by collaborating aviation agencies.
CAPSCA AFRICA PROJECT ASSISTANCE

- Second CAPSCA Global Coordination Meeting and 3rd Regional Aviation Medicine and Public Health Team Meeting from 11th - 13th October 2011 at Abuja.
- Aviation stakeholders – formally trained by ICAO, WHO, ACI and IATA experts.
- GAPS identified. CAPSCA training video made.
- Enhanced local, regional and international collaboration.
• 3rd CAPSCA Assistance Visit scheduled for 22nd – 23rd June 2015 at Lagos Airport.
• Aviation stakeholders meetings ongoing
• Aviation stakeholders:
  o CAA - Focal Point
  o Airport Authorities – including Medical, Fire & Safety services; Port Health Authority
  o Air Navigation Service provider (ANSP); Security Agencies – Immigration, Customs, Police, Air Force, NIA, DSS etc; Private Hospitals; Airlines – Domestic and Foreign; Ground Handling and Cargo companies
• Preparation – GAP Analysis, Mock exercise, Documentation
• Implementation of relevant ICAO PHE SARPS
ICAQ USOAP AUDIT 2015

• Nigeria is currently preparing for ICAO USOAP Audit 16th -25th November 2015

• Nigeria Civil Aviation Regulations (Nig. CARs 2009 and 2012) – being amended inline with ICAO SARPs

• Incorporating relevant PH related provisions in Annexes 6,9,11,14 and 18 and PANS ATM Doc 4444
EBOLA OUTBREAK – NIGERIAN EXPERIENCE

- Outbreak of Ebola – Guinea March 2014
- Meeting of Aviation Stakeholders held
- Airlines directed to adhere to ICAO/WHO requirements by notifying ATC of any suspected case on board
- Advisory Circular on Ebola issued to Airlines and ground handling companies by NCAA.
- Other Aviation Stakeholders put on high alert
- Implementation of WHO recommendations on handling of possible EVD cases.
EBOLA – NIGERIAN EXPERIENCE

Lagos, Lagos State

• 20th July 2014 – Patrick Sawyer, Liberian, Economic Community of West African States (ECOWAS) diplomat arrived Lagos, Nigeria on Asky Airlines - a regional flight Route – Monrovia – Accra – Lome (Flight KP021). Then Lome – Lagos (Flight KP050)
• Pax was ill (fever and vomiting) on arriving Lagos, Nigeria.
• Lagos City – Over 21 Million inhabitants
EBOLA – NIGERIAN EXPERIENCE

- Pax received at Airport by ECOWAS protocol officials (Diplomatic)
- Taken to First Consultants Hospital (Private Hospital)
- Pax denied he had contact with an Ebola infected person.
- Claimed to be suffering from malaria
- Failed to get better with treatment.
EBOLA – NIGERIAN EXPERIENCE

- Based on pax travel history, treating physician suspected Ebola
- Pax isolated and tested for Ebola. Test was positive
- Public Health Authorities alerted
- Index case died on 25\textsuperscript{th} July 2014 (5 days later)
- 72 Potentially exposed persons at Airport and private hospital.
Port Harcourt, Rivers State

• An ECOWAS staff member infected by the index case (29th July 2014 onset illness) flew from Lagos to Port Harcourt, Rivers State (596.2 Km, 1 hour flight) to seek treatment

• Infected three others including a health care worker who died on 22nd August 2014

• Generated 526 more contacts in addition to the 351 contacts (primary and secondary) of the index case.

• Initiating the Port Harcourt case cluster.

• A nurse who treated the index case also fled quarantine and travelled to Enugu – No community spread experienced.
IMMEDIATE ACTIONS

- The Federal Ministry of Health (FMH) with guidance from Nigeria Centre for Disease Control (NCDC) declared an Ebola Emergency in Lagos, Nigeria.
- FMH implemented a rapid response utilizing all available public health assets.
- 23rd July 2014, FMH, NCDC, Lagos State Government and International partners (WHO, United States CDC, MSF, UNICEF etc) activated an Ebola Incident Management Centre and Emergency Operations Centre (EOC).
- EOC – Managed by Nigeria Centre for Disease Control (NCDC), Port Health Authority, International stakeholders, medical experts, volunteers etc.
EBOLA – NIGERIAN EXPERIENCE –
IMMEDIATE ACTIONS

• An Incident Management system (IMS) established by the EOC for coordination, decision making and appropriate response.
• Intensive Contact tracing - 18,500 face to face visits by contact tracing team (Port health officials, volunteers, Airlines and partners supervised by skilled, and dedicated Epidemiologists)
• Suspected Ebola patients moved by EOC - case Mgt. team to Case Isolation ward
• Positive Ebola cases transferred to Confirmed Case ward for treatment
• Effective decontamination carried out.
AVIATION RELATED ACTIONS

• Asky Airline operations into Nigeria temporarily suspended due to lack of SOPs being readily available.

• Airlines again advised to adhere strictly to IATA guidelines for cabin crew actions/procedures.

• Enhanced screening at all airports (domestic and International) by Port Health officials.

• Aviation screening procedures amended.
AVIATION RELATED

• Ban placed on the importation and inter-state transportation of human remains by air except a waiver is obtained from the Minister of Health.
• Arik Air (major Nigerian airline) suspended flights to Ebola affected countries on 27th July 2014 – strictly airline action.
EBOLA – NIGERIAN EXPERIENCE

AVIATION RELATED

• Temperature screening at Ports of Entry (POEs) by Port health officials – Air, Land and sea borders
• Administering Pax health screening form at Domestic and International airports
• Passenger Locator Forms – International flights
• Hand held infra red thermometers used
• Thermographic cameras – Installed in 4 major International Airports.
EBOLA - NIGERIAN EXPERIENCE

SCREENING AT NIGERIAN POEs

HAND HELD INFRA RED TEMPERATURE SCANNERS
EBOLA – NIGERIAN EXPERIENCE

SCREENING AT NIGERIAN POEs

THERMOGRAPHIC CAMERA AT MURTALA MUHAMMED INT’L AIRPORT LAGOS
EBOLA – NIGERIAN EXPERIENCE

STRONG POLITICAL WILL

• 22ND JULY 2014 – President inaugurated a multi-sectoral high level Presidential Steering Committee on EVD comprising ministries of Health, Aviation, Interior, Information, National Planning, Foreign Affairs, Defense, Special Duties, Environment and Agriculture.
• National Work Plan developed and implemented
• EVD containment budget (N1.9billion about $95M) approved by the President.
Organizational Structure of the Ebola Response Incident Management Centre in Nigeria
EBOLA – NIGERIAN EXPERIENCE

STRONG POLITICAL WILL

- Funding released for:
- EVD Logistics (PPEs, containment tents, etc),
- Dissemination of information on Ebola preventive measures, symptoms and signs
- Running of National and state Ebola Operations Centers
- Surveillance and contact tracing,
- Training of Medical team, paramedics and volunteers
- Payment of adhoc staff.
EBOLA – NIGERIAN EXPERIENCE

STRONG POLITICAL WILL

• Synergy between the Federal and 36 State Governments, Federal Capital Territory and Local Government Areas
• Effective Collaboration among the various Aviation stakeholders at the airports in line with training and Assistance Visits received from CAPSCA Africa Project.
• Minister of Health gave periodic briefings to Local and international media.
• All Public and some private schools were closed.
EBOLA – NIGERIAN EXPERIENCE

STRONG POLITICAL WILL

Government discouraged the following:

• Mass gatherings – Religious, traditional, and political
• Hand shaking to minimise spread of disease
• Attendance at burials/funeral ceremonies
• Traditional rituals carried out on corpses before burial
• Unsafe handling of human remains by morticians.
• Consumption of improperly cooked bush meat, bats etc.
EBOLA – NIGERIAN EXPERIENCE

CONTACT TRACING –
Key in containment effort
• 18,500 face-to-face visits carried out
• Primary contacts – Identified, self-quarantined at home
• Temperature measurement by volunteers daily
• If symptomatic – taken to Ebola treatment centre. Tested for EVD
• If positive – taken to confirmed case treatment centre.
• If negative – released home and monitored for 21 days from day of exposure.
EBOLA – NIGERIAN EXPERIENCE

INTERNATIONAL/NATIONAL COLLABORATION & DONOR AGENCIES

• FMOH, PHS, NCDC, NPHCDA
• Lagos and Rivers state governments
• World Health Organization (WHO)
• UNICEF
• MSF (Medicins Sans Frontieres)
• United States Centre for Disease Control (CDC)
• Elizabeth R. Griffith Research Foundation
• Assoc. Public Health Physicians of Nig.
• Nigerian Red Cross, Nigerian Army
• Hospital for Humanity
• Nigerian Institute of Medical Research
• Others
EBOLA – NIGERIAN EXPERIENCE

ASSISTANCE RECEIVED:

• Funds
• Trained Personnel
• Manpower development
• Out break Investigation
• Risk assessment
• Clinical care
• Other logistics (Ambulances, PPEs, etc)
EBOLA – NIGERIAN EXPERIENCE

COMMUNITY EFFORTS

• Public awareness enlightenment campaigns on Ebola Virus Disease by various NGOs, Religious bodies, corporate entities, Govt. agencies etc
• Electronic and print media – Jingles, TV and Radio talk shows, newspapers, Flyers etc
• Use of communication technology - bulk sms text messages
• Effective information dissemination amongst hospitals (private and government owned)
EBOLA – NIGERIAN EXPERIENCE

COMMUNITY EFFORTS

• Self and third party reporting of suspected cases
• Involvement of traditional rulers, community leaders and religious leaders.
• Increased awareness on EVD among road transport workers, morticians, market women and hunters.
• Public Hand hygiene advocacies
• Temperature screening and installation of alcohol based sanitizers at shopping malls, offices, hospitals, schools, churches, mosques, restaurants, etc.
EBOLA – NIGERIAN EXPERIENCE

INFORMATION ON EBOLA VIRUS DISEASE

Posters, hand bills, fact sheets, roll-up banners, billboards, t-shirts, face caps etc
EBOLA – NIGERIAN EXPERIENCE

BENEFITS FROM PREVIOUS OUTBREAK EXPERIENCES/RESPONSES

• Avian Influenza of 2009
• Major Lead Poisoning Response of 2010
• Polio eradication efforts.
• Lassa Fever
• National public institutions (e.g. NCDC), competencies, structures and logistics readily available.
EBOLA – NIGERIAN EXPERIENCE

CHALLENGES:

• Rumor mill – Social media platforms
  - unconfirmed deaths from Ebola
• Claim of unorthodox treatments e.g. Salt, Bitter kola nuts,
• Fear, stigmatization, myths
• Funds, Logistics, training etc
• Poverty, Hygiene, infrastructure etc
## EBOLA – NIGERIAN EXPERIENCE

### CONCLUSION

<table>
<thead>
<tr>
<th>Summary of Cases</th>
<th>National</th>
<th>Lagos</th>
<th>Rivers</th>
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</thead>
<tbody>
<tr>
<td><strong>CUMULATIVE NO. OF CASES</strong></td>
<td>CONFIRMED</td>
<td>19</td>
<td>15</td>
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<tr>
<td></td>
<td>PROBABLE</td>
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<td>1</td>
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<tr>
<td></td>
<td>SUSPECTED</td>
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<td><strong>CUMMULATIVE NO. OF DEATHS</strong></td>
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<tr>
<td></td>
<td>SUSPECTED</td>
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<tr>
<td></td>
<td>CONFIRMED</td>
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<td>0</td>
</tr>
<tr>
<td><strong>CASE FATALITY RATE (%) – CONFIRMED +PROBABLE</strong></td>
<td></td>
<td>40%</td>
<td>37.5%</td>
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<tr>
<td><strong>CUMMULATIVE NO. OF DISCHARGES</strong></td>
<td>CONFIRMED</td>
<td>12</td>
<td>11</td>
</tr>
</tbody>
</table>
EPICURVE OF THE EVD OUTBREAK IN NIGERIA JULY-SEPTEMBER, 2014

- Survivor
- Dead

Dates and Number of Cases:
- 15/07/2014: 1 case
- 17/07/2014: 1 case
- 19/07/2014: 1 case
- 21/07/2014: 1 case
- 23/07/2014: 1 case
- 25/07/2014: 1 case
- 27/07/2014: 1 case
- 29/07/2014: 1 case
- 31/07/2014: 1 case
- 02/08/2014: 1 case
- 04/08/2014: 1 case
- 06/08/2014: 1 case
- 08/08/2014: 1 case
- 10/08/2014: 1 case
- 12/08/2014: 1 case
- 14/08/2014: 1 case
- 16/08/2014: 1 case
- 18/08/2014: 1 case
- 20/08/2014: 1 case
- 22/08/2014: 1 case
- 24/08/2014: 1 case
- 26/08/2014: 1 case
- 28/08/2014: 1 case
- 30/08/2014: 1 case
- 01/09/2014: 1 case
- 03/09/2014: 1 case
- 05/09/2014: 1 case
- 07/09/2014: 1 case
- 09/09/2014: 1 case
- 11/09/2014: 1 case
- 13/09/2014: 1 case
- 15/09/2014: 1 case
EBOLA – NIGERIAN EXPERIENCE

CONCLUSION

• Took 93 days for Nigeria to contain EVD
• Nigeria was declared Ebola Free by WHO on Monday, 20\textsuperscript{th} October 2014.
• It was a difficult and challenging experience.
• Strong political will, effective national Collaboration, Cooperation, Coordination & Communication, Support from International and local partners including the CAPSCA Africa Project were reasons for the success story.
9th October 2014 European Centre for Disease Prevention and Control (ECDC) while complementing Nigerian’s successful efforts to control the outbreak, was quoted as saying “the usually measured WHO declared the feat a piece of world-class epidemiological detective work”.

THANK YOU FOR YOUR ATTENTION!