Collecting born-digital resources documenting the 2014 Ebola Outbreak



Source: WHO, October 1, 2014

Christie Moffatt
History of Medicine Division
National Library of Medicine
National Institutes of Health
U.S. Department of Health and Human Services



Web collecting at NLM--Background

- Archiving NLM institutional content since 2003
- NLM Web Collecting and Archiving Working Group
- Archive-It partners since 2009
- Pilot collection on Health and Medicine Blogs



NLM web archive collections

- Avian Influenza A (H7N9) Virus
- Disorders of the Developing and Aging Brain: Autism and Alzheimer's on the Web
- NLM institutional web content
- Global Health Events









Web collecting at NLM--Why?

 Information published on the Web today will be the primary resources for future researchers.

--International Internet Preservation Consortium (IIPC)

"A significant amount of the data that permeates nearly all aspects of life, culture, and scholarship today will not be available at a library or an archives unless attention and priority is paid to actively collecting born-digital materials"

-- National Digital Stewardship Alliance (NDSA)





NLM Congressional Mandate

"to collect and preserve scholarly and professional literature about health, medicine, and the biomedical sciences, **irrespective of format**."

NLM Collection Development Policy

- Record progress in research in biomedicine and the related areas of the life sciences
- Document the practice and teaching of medicine broadly defined
- Demonstrate how health services are organized, delivered and financed
- Chronicle the development and implementation of policy that affects research and the delivery of health services
- Illustrate the public perception of medical practice and public health

Collection development manual of the National Library of Medicine, 4th ed., 2004. http://www.nlm.nih.gov/tsd/acquisitions/cdm/





Subjects

Addiction Medicine Aerospace Medicine Allergy and Immunology

Anatomy

Anesthesiology

Anthropology

Behavioral Medicine

Biochemistry

Bioengineering

Bioethics

Bioinformatics

Biological Sciences

Biomathematics

Biomedical Imaging

Biomedical Research

Biophysics

Cardiology

Cell Biology

Chemistry

Clinical Laboratory Science

Cognitive Science

Communication Disorders

Complementary and Alternative Medicine

Cytology

Dentistry Dermatology

Disaster Management

Education for the Health Professions

Embryology

Emergency Medicine

Endocrinology

Environmental Health

Exercise Science

Family Practice

Forensic Medicine

Gastroenterology

Genetics Geriatrics

Gynecology

Health Communication

Obstetrics

Occupational Health and Safety

Oncology

Ophthalmology

Optometry

Disaster Management **Emergency Medicine** Infectious Diseases **Public Health**

habilitation

Medical Humanities

Medical Informatics

Medical Sociology

Medicine

Microbiology

Military Medicine

Molecular Biology

Molecular Medicine

Nephrology

Neurology

Neuroscience

Nursing

Pulmonary Medicine

Radiology

Religion and Medicine

Reproductive Medicine

Rheumatology

Space Life Sciences

Sports Medicine

Surgery

Therapeutics

Toxicology

Urology

Veterinary Medicine



NLM Subject: Disaster Management

- Health planning and policies
- Health facilities management
- Public health workforce training
- Communicable disease control
- Emergency medical services

- Psychological preparedness and response
- Risk management
- Health information systems
- Laboratory diagnosis and characterization

"NLM may select examples of broader works on disaster management to document the public response to specific events or the social, political and cultural context of public health." (NLM Collection Development Manual)

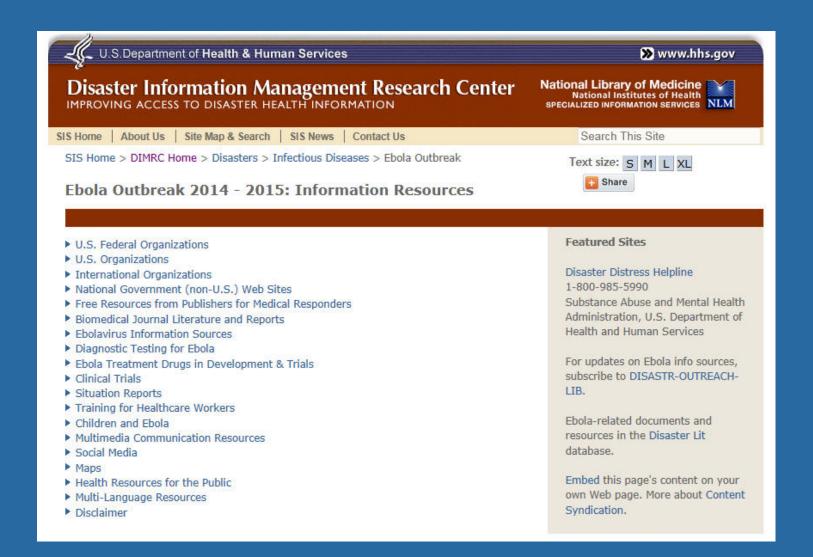






http://www.cdc.gov/ on October 2, 2014



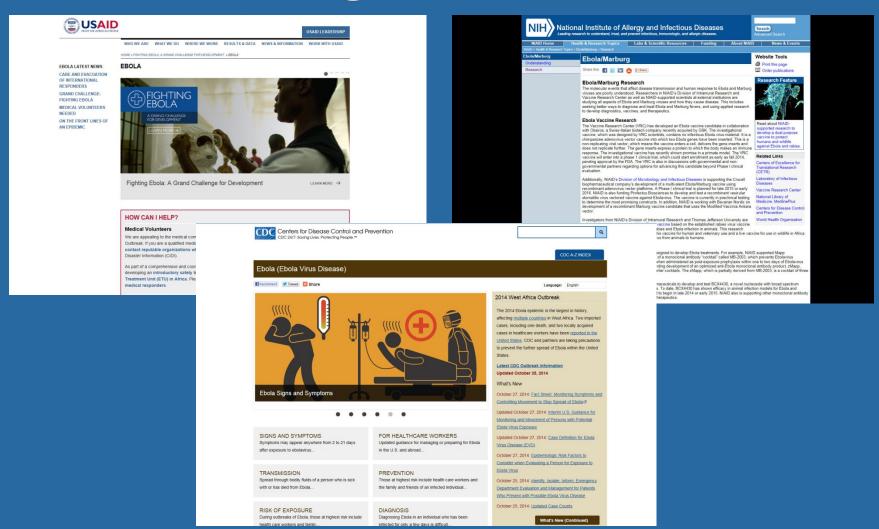


http://sis.nlm.nih.gov/dimrc/ebola_2014.html

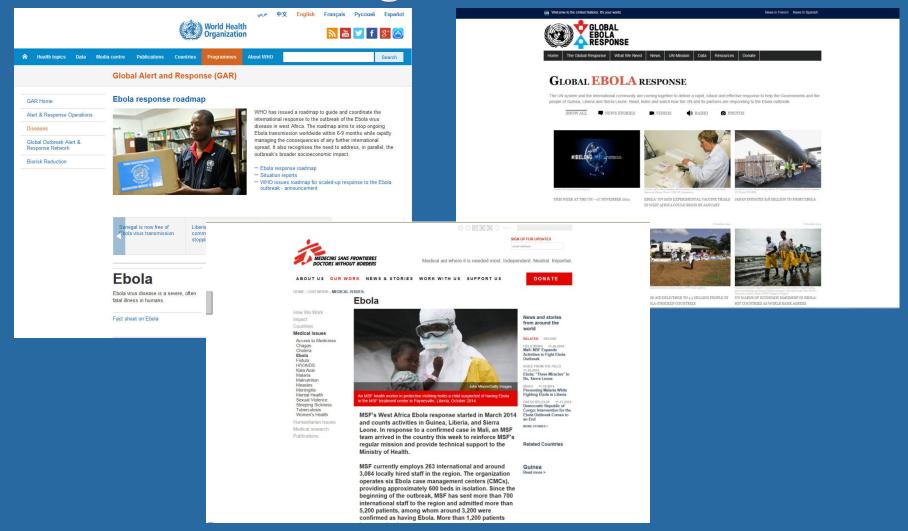




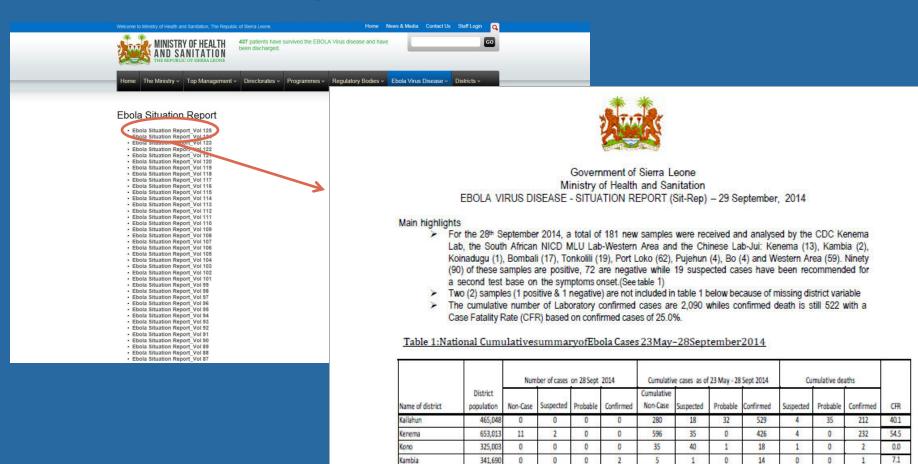
U.S. Federal Organizations



International Organizations



Situation Reports



Koinadueu

Bombali

onkolili

Port Loko

335,471

494,139

434,937

557,978

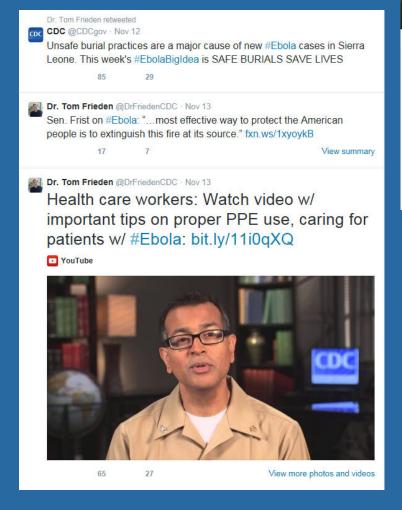
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5.3

6.8

6.3

Social Media









Blogs, photos and stories from the front line of MSF's emergency medical work

Staff • Patients • Galleries • About MSF • Work for MSF

Home > Staff > Blogs > MSF Ebola Blog > The Ebola Clinic



AUTHOR: Kathryn Stinson

BLOG: MSF Ebola Blog

NATIONALITY: South African

COUNTRY: Sierra Leone

JOB TYPE: Epidemiologist

TOPIC: Ebola

The Ebola Clinic

21 October 2014

2 Comments Comments

"So just think of the one who is about to die, trapped be while at the same time, there are all those people, on the by Albert Camus.

"Can you tell us who you were living with before you ca across the fence. Feeling uncomfortably self-conscious to talk to him, I stand about seven metres away, in the t the emotion in his face.

"We are trying to probe very gently whether there was anyone else who may have been in contact with him when he became sick. This is so that the health promotion and surveillance teams can follow up with the contacts to ensure that that if they are in quarantine that they have sufficient food, drinking water, mattresses and soap for infection control, and to address the concerns of the community and sensitize them about Ebola."

He is middle aged and he lost his wife to Ebola three days ago. He cared for her while she was dying. He was brought in by ambulance to our treatment centre last night with a fever. We are trying to probe very gently whether there was anyone else who may have been in contact with him when he became sick. This is so that the health promotion and surveillance teams can follow up with the contacts to ensure that that if they are in quarantine that they have sufficient food, drinking water, mattresses and soap for infection control, and to address the concerns of the community and sensitize them about Ebola.



blogs.unicef.org



BY FREDERICK BOBOR JAMES ON 19 FEB 2015

Sierra Leone: staying at zero in an ex-Ebola hotspot

Close to the centre of Komendeh Luyama village in Sierra Leone's Kenema district is a mudwalled family home that looks much like the others - except the doors and windows [...]



BY HELENE SANDBU RYENG ON 11 FEB 2015 . (2 COMMENTS)

Ebola in Liberia: from secret burials to safe burials

Secret burials were not in my vocabulary before I arrived in Liberia. When I think of burials I think of services with a lot of people. Powerful speeches about the [...]



BY GEETA RAO GUPTA ON 09 FEB 2015 • (1 COMMENT)

Witnessing rays of hope in West Africa's Ebola fight

In late January, Deputy Executive Director for UNICEF, Geeta Rao Gupta, travelled to Sierra Leone, Liberia and Guinea to support communities, partners and UNICEF staff as they continue to battle [...]























EBOLA DEEPLY

Dr. Pardis Sabeti on Decoding the Ebola Genome



Harvard geneticist Dr. Pardis Sabeti spoke with us about her groundbreaking work sequencing the Ebola genome and what it means for an approach to tackling the outbreak.



Size of the collection

As of July 20, 2015:

- 269 starting point URLs
- 4,446,975 URLs
- 266 GB archived
- Global Health Events collection is available at https://archive-it.org/collections/4887



Three recovered Ebola patients get a ride back home after successfully completing their treatment. One patient holds her certificate of discharge that says she is free from Ebola and does not constitute a threat to the community.

https://wayback.archive-it.org/4887/20141114234156/http://www.cdc.gov/vhf/ebola/resources/videos/ebola-first-lady-guinea-psa.mp4 play





Your dog or cat is not spreading Ebola.

from West Africa are safe to eat and drink.

No one has been infected with Chola from foods that are imported into the



Mosquitoes are the deadliest animals in the world, but they don't carry Ebola.

There have been no reports of mosquitoes or other insects transmitting Eb virus. Only mammals (for example, humans, bats, monleys, and aped have become infected with Ebols virus and speed it. Mosquitoes do carry other organizms, like makins and West Nile virus, that can make people very sick, and sometimes even cause death.

Your family members, coworkers, and neighbors returning from countries with Ebola outbreaks



6 Household bleach and other disinfectants kill Ebola.



The Ebola outbreak is not affecting the safety

natine travelers in the United States are extremely unlikely to become infected with thola. All travelers coming from Liberia, Sierra Leone, Guinea, or Mall, arrive at one of five airports in the United States where entry screening by Customs and Border Protection and CDC is taking place. Airline travelers in the United States



Ebola is only spread from one person to another once symptoms begin.

Symptoms of Ebola appear anywhere from 2 to 21 days (average 8 to 10 days) after being exposed. A person infected with Ebola cannot spread it to others

You can't get Ebola from a handshake or a hug.

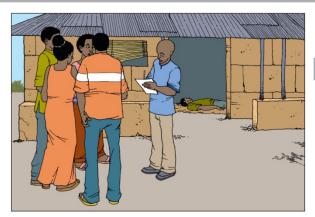
libola is spread through direct contact with body fluids from a person sick with El Direct contact means that blood or body fluids (including but not limited to unina allow, sweet, fecer, wornit, breast milk, and semen) from an infected person (alive dead) have touched another person's eyen, nose, or mouth, or an open cut or wore







Ebola Must Go: Bury All Dead Bodies Safely-Call 4455



Do not touch, wash or clean any dead body. Burying all who die safely is one of the best ways to make sure we have zero cases of Ebola in Liberia. Call 4455 to report a dead body and to alert the burial teams to pick up the body for free burial.

12/23/2014 CS252674-C

Allow for a Safe Burial when Someone Dies at Home











U.S. National Library of Medicine

U.S. Centers for Disease Control and Prevention







Epidemic & Pandemic Alert

Ebola virus disease in West Africa

and Response (EPR)

Overview

Features

Components

Outbreak News

Situation reports

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About us

Ebola virus disease in Guinea (Situation as of 24 March

= A total of 86 cases including 59 deaths (CFR: 68.5%) reported from 4

districts (Guekedou, Macenta, Nzerekore and Kissidougou)

The Ministry of Health (MoH) of Guinea has notified WHO of a rapidly evolving outbreak of Ebola virus disease in forested areas south eastern Guinea. As of 24 March 2014, a total of 86 cases including 59 deaths (case fatality ratio: 68.5%) had been reported. The cases have been reported in Guekedou, Macenta, Nzerekore and Kissidougou districts. In addition, three suspect cases including two deaths in Conakry are under investigation. Four health care workers are among the victims. Reports of suspected cases in border areas of Liberia and Sierra Leone are being investigated.

Six of seven blood samples from suspect cases tested at Institut Pasteur in Lyon. France were positive for Ebola virus by PCR, confirming the first Ebola haemorrhagic fever outbreak in Guinea. Preliminary results from sequencing of a part of the L gene has showed strong hom agy with Zaire Ebola virus, Additional laboratory studies are ongoing to confirm these findings.

Actions taken

The Ministry of Health (MoH) together with WHO and other partners have initiated measures to control the outbreak and prevent further spread. The MoH has activated the national and district emergency management committees to coordinate response The MoH has also advised the public to take measures to avert the spread of the disease and to report any suspected cases.

Multidisciplinary teams have been deployed to the field to actively search and manage cases; trace and follow-up contacts; and to sensitize communities on the outbreak

Cholera

search...

Cholera fact sheet

Crimean-Congo haemorrhagic fever (CCHF)

CCHF fact sheet Fhola virus disease

Fact sheet on Ebola virus disease [Français]

More on Ebola virus disease [Français]

Marburg

Marburg haemorrhagic fever fact

Poliomyelitis

Poliomyelitis fact sheet

Yellow fever



Countries

Overview

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Situation reports

Ehola virus disease in West Africa

Publications

Epidemic & Pandemic Alert and Response (EPR) Ebola virus disease, West Africa - update 8 August 2014

Health topics

Epidemiology and surveillance

Between 5 and 6 August 2014, a total of 68 new cases of Ebola virus disease (laboratory-confirmed, probable, and suspect cases) as well as 29 deaths were reported from Guinea, Liberia, Nigeria, and Sierra Leone.

Health sector response

Programmes

On Wednesday, 6 August and Thursday, 7 August, an Emergency Committee was held via teleconference to determine whether the current outbreak constitutes a Public Health Emergency of International Concern. After discussion and deliberation on the information provided, the Committee advised that:

Media centre

- . the Ebola outbreak in West Africa constitutes an 'extraordinary event' and a public health risk to other States:
- the possible consequences of further international spread are particularly serious in view of the virulence of the virus, the intensive community and health facility transmission patterns, and the weak health systems in the currently affected and most at-risk countries.
- · a coordinated international response is deemed essential to stop and reverse the international spread of Ebola.

It was the unanimous view of the Committee that the conditions for a Public Health Emergency of International Concern (PHEIC) have been met.

On Friday, 8 August, the Director-General, Dr Margaret Chan, gave a press briefing to the international media from WHO Headquarters. Dr Chan will give an additional briefing on the situation of the outbreak and the ongoing response in the region to the Permanent and Observer Missions to the United Nations and other international organizations in Geneva on Tuesday, 12 August Permanent Representatives of the affected countries have been invited to speak on behalf of their respective Governments on the national Ebola response and prorities.

Cholera

search

Regional Director

Cholera fact sheet

Crimean-Congo haemorrhagic fever (CCHF)

About us

CCHF fact sheet

Fbola virus disease

Fact sheet on Fhola virus disease [Français]

More on Ebola virus disease [Français]

Marburg

Marburg haemorrhagic fever fact

Poliomyelitis

Poliomyelitis fact sheet

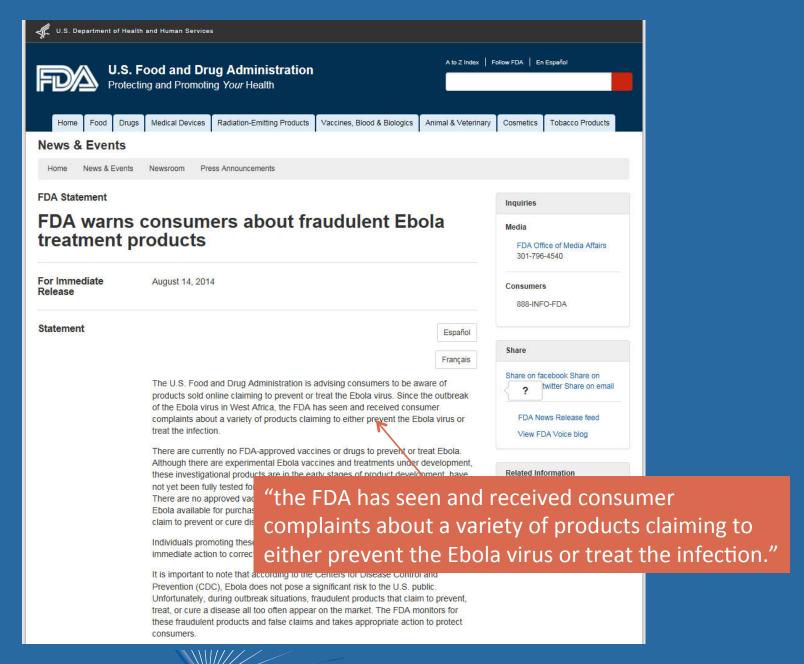
Yellow fever

Yellow fever fact sheet

"Six of seven blood samples from suspect cases tested at Institut Pasteur in Lyon, France were positive for Ebola virus by PCR, confirming the first Ebola haemorrhagic fever outbreak in Guinea."

"It was the unanimous view of the Committee that the conditions for a Public Health **Emergency of** International Concern (PHEIC) have been met."





Future research

- Maintain record of scholarship and varied perspectives in the historical record
- Preserve at-risk artifacts of cultural and technological change
- Diversity of materials
- Historians will be able to research digital collections in revealing and novel ways



http://www.who.int/features/2015/ebola-diaries-mwanza/en/(July 20, 2015)



Challenges/lessons learning

- Deciding to collect, then when to start and when to stop
 - WHO Public Health Emergency of International Concern (PHEIC)
 - NLM Emergency Access Initiative (EAI)

- Identifying/collecting a diversity of perspectives
- Time: for selecting new content, reviewing content crawled





Learn more:

- NLM Global Health Events web archive collection https://archive-it.org/collections/4887
- HMD blog Circulating Now http://circulatingnow.nlm.nih.gov/
- HMD Pinterest collection on Ebola web collecting https://www.pinterest.com/NLMHistory/ebola-2014-a-web-archive-collection/
- NDSA 2015 National Agenda for Digital Stewardship <u>http://www.digitalpreservation.gov/ndsa/documents/</u> <u>2015NationalAgenda.pdf</u>

Questions? christie.moffatt@nih.gov



