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Ebola Fever

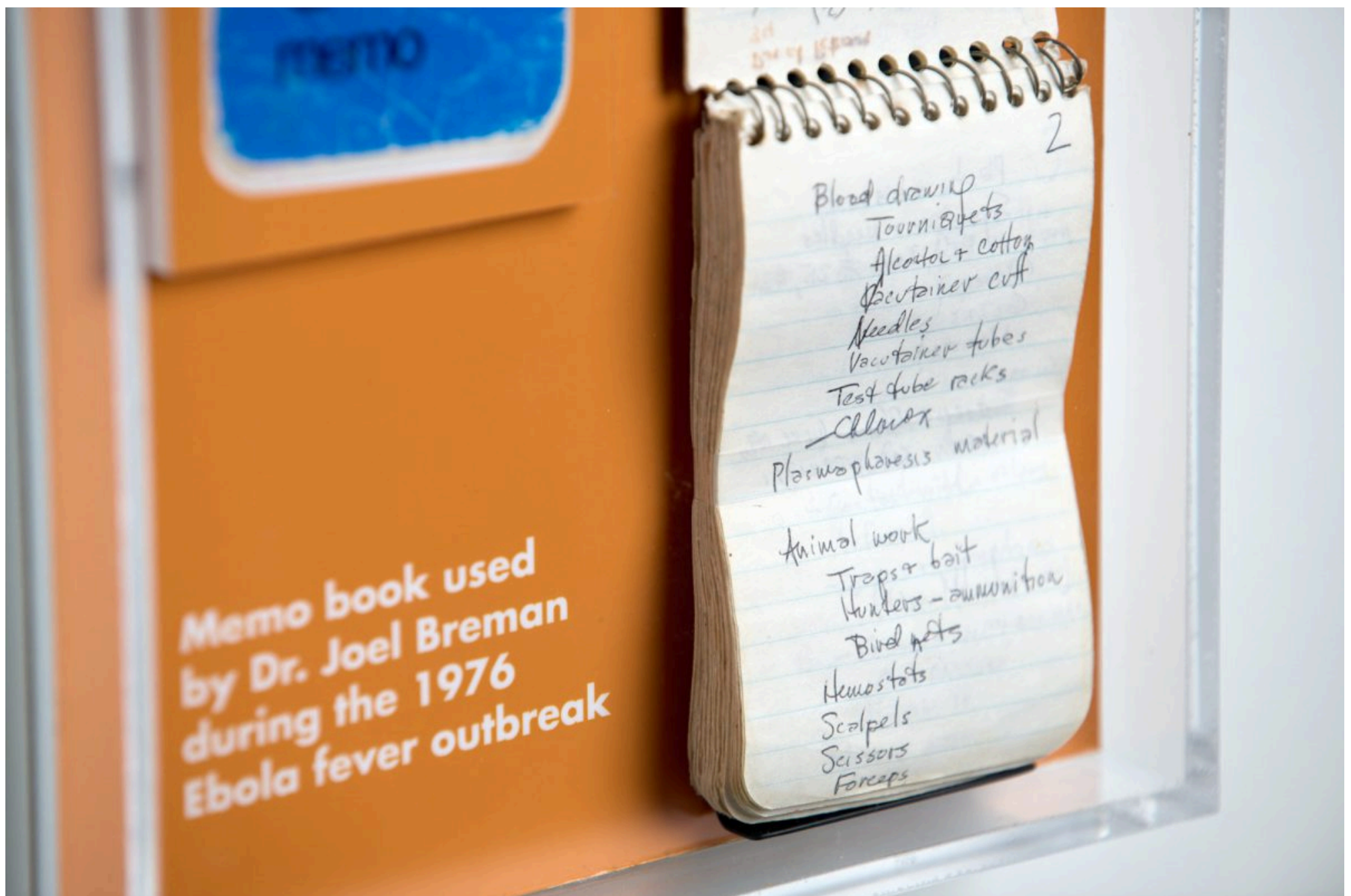


During a 1995 Ebola outbreak, these CDC and Zairian scientists took samples from animals collected near Kikwit, Zaire.

Based on available evidence and the behavior of similar viruses, CDC scientists believe that the natural reservoir of the Ebola virus is zoonotic (animal-borne), and is normally maintained in an animal host that is native to Africa. Research is on-going.

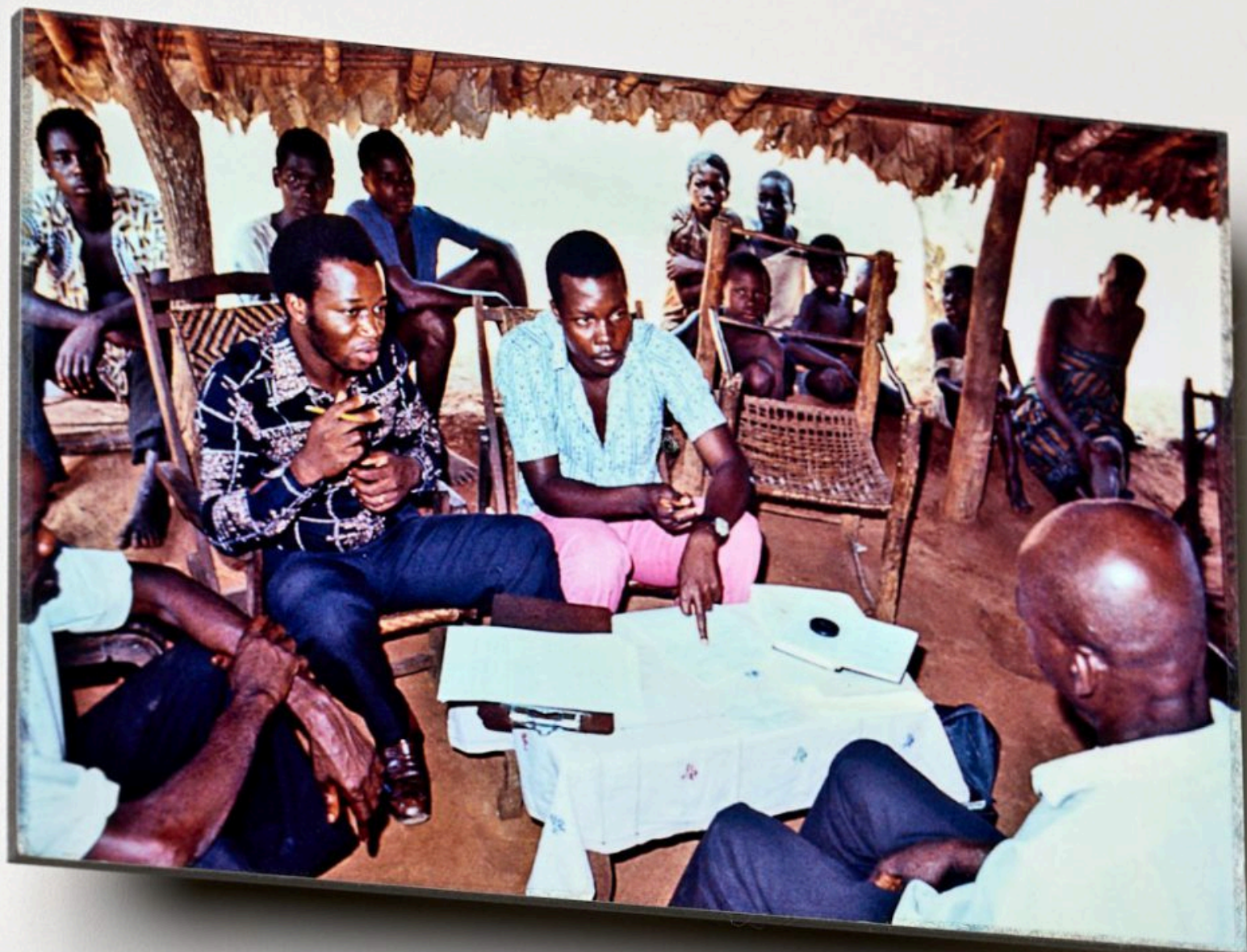
Taking Samples

While the U.S. was consumed with the mystery disease in Pennsylvania, a new challenge would soon emerge overseas. In October 1976, [hemorrhagic fever](#) emerged in the town of Yambuku in Zaire, now the Democratic Republic of Congo. Hemorrhagic fevers are often deadly, as they quickly damage many organs and the blood vessels, and this new disease proved to be especially severe. In the photograph displayed above, scientists are taking samples from local animals and insects in response to a later outbreak of the disease.



Collecting Data

Memo books from one of CDC's investigators are also seen here. Using the data they collected, investigators traced the source of the outbreak to a patient at a mission hospital. By quickly isolating the disease, CDC and other disease control organizations prevented the spread of the [Ebola virus](#). By the time the epidemic ended, 318 people became ill and 88% of them died, devastating the area.



Comparing Notes

CDC epidemiologists, the Zairian government, and other international scientists came together to control the spread and identify the new disease. A photograph displayed here shows Zairian health officials sitting at a small table, surrounded by local villagers while they examine notes.




Hot Labs: BSL-4

While the outbreak was under control, the pathogen still had to be identified. Laboratorians in Atlanta analyzed blood and tissue samples in CDC’s “hot labs” and were able to isolate a virus that was named after a river near the outbreak, the Ebola River. Because there is no cure for Ebola fever, study of the virus today takes place in CDC’s high containment [Biosafety Level 4 labs](#) .

While the source of Ebola is unknown, scientists do have some theories and suspect that bats are the natural reservoir for the virus. CDC continues to research the virus and work with other countries to control outbreaks of Ebola.

Enrichment Modules

SEE 

Take a closer look:

- Learn more about the [virus that causes Ebola](#) and the global impact of the disease.
- Inspect an electron microscopic image of the [1976 isolate of Ebola virus](#), as well as a digitally-colored scanning electron microscope image of [Ebola virus particles](#) budding from African green monkey kidney cells.
- View images depicting [handwashing](#) and [personal protective equipment](#) (PPE) protocols during Guinea’s 2014-2016 Ebola epidemic.

HEAR 

From the source:

- Read a [firsthand account](#) and [stories from the field](#) during CDC’s response to the 2014-2016 epidemic.
- Find photographs, oral histories, and documents from the 2014-2016 Ebola epidemic through [Global Health Chronicles](#) [↗](#) , a CDC Museum/Emory University collaboration.
- Hear [Diana Toomer](#) [↗](#) share her experiences working for CDC-INFO during the 2014 West Africa Ebola epidemic.
- View photographs that [fifteen staff scientists](#) [↗](#) from CDC’s National Center for Health Statistics took while in Guinea, Liberia, and Sierra Leone.

REFLECT

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Then and now:

- Learn more about the [2014-2016 Ebola outbreak](#) in West Africa and while you’re at it, explore what we know about [all Ebola outbreaks](#) from 1976 to present day.
- Check out a [timeline](#) of Ebola cases during CDC’s 2014-2016 response.
- Explore the [art that arose](#) from the 2014-2016 Ebola outbreak.
- Explore the interconnected weavings of ancient textile art, the fabric of society, and Ebola in this issue of [Emerging Infectious Diseases](#).
- How did the geographical span of Ebola cases change over time? These [World Health Organization maps](#) [↗](#) show just that.

DO

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Give it a try:

- 3D print an Ebola envelope glycoprotein through the [National Institutes of Health 3D Print Exchange](#) [↗](#) .
- Learn about the importance of mental health during a public health emergency response, like Ebola, in the [Out of the CDC Museum Collection section of the CDC Museum Public Health Academy Teen Newsletter: November 2020 – Mental Health](#).

Last Reviewed: March 23, 2021

How helpful was this page?



Not helpful

Very helpful