

# 1 Problem

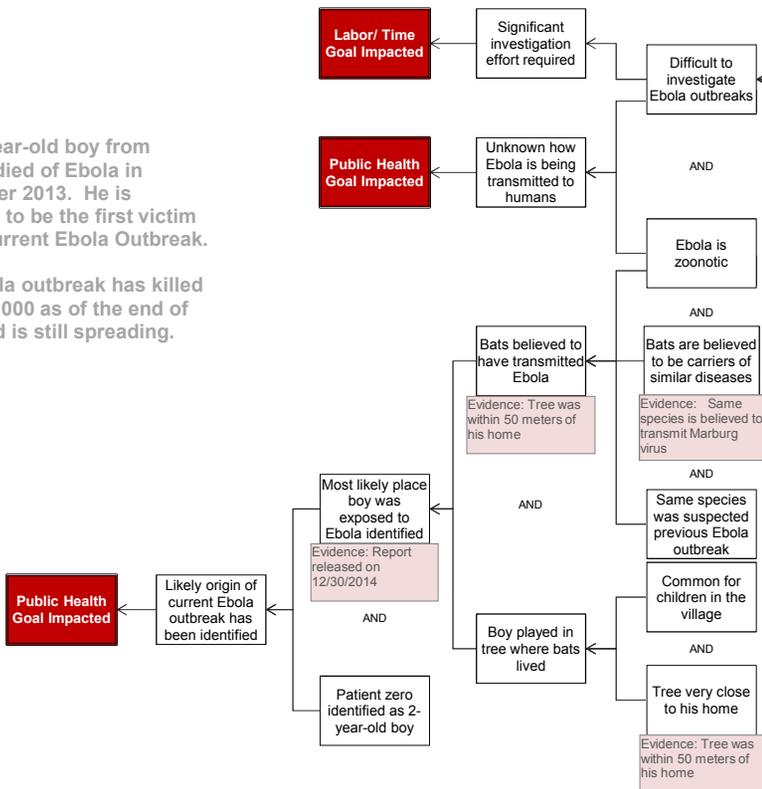
<b>What</b>	Problem(s)	Researchers struggle to identify which species spread Ebola
<b>When</b>	Date	Ongoing
	Different, unusual, unique	Patient zero for ongoing Ebola outbreak is a 2 year-old child
<b>Where</b>	Facility, site	Meliandou, Guinea
	Task being performed	Investigation into origin of Ebola outbreak that began in 2014

## Impact to the Goals

<b>Public Health</b>	Unknown how Ebola is being transmitted to humans
	Likely origin of current Ebola outbreak has been identified
<b>Labor/ Time</b>	Significant investigation effort required

A two-year-old boy from Guinea died of Ebola in December 2013. He is believed to be the first victim of the current Ebola outbreak.

The Ebola outbreak has killed nearly 8,000 as of the end of 2014 and is still spreading.



# ORIGIN OF EBOLA OUTBREAK

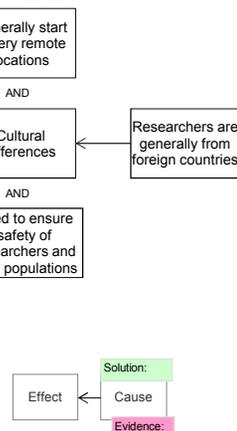
## Cause Map

### Patient zero believed to have gotten Ebola from bats

Scientists believe they have identified the origin of the ongoing Ebola outbreak. The first person believed to have contracted Ebola was a two-year-old boy named Emile Ouamouno from a village called Meliandou in Guinea. The fact that patient zero was a small child is unusual since he is too young to have been a hunter or travel far from the village alone.

# 2 Analysis

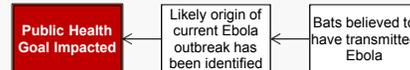
**More Detailed Cause Map** - Add detail as information becomes available.



Bats have long been suspected of being carriers of Ebola, but scientists have never been able to conclusively prove which animals are responsible for human Ebola outbreaks. Ebola outbreaks tend to occur in remote areas where it's difficult to gather data in a timely manner, especially in the midst of an Ebola outbreak. Cultural differences can also make research difficult because local populations are often suspicious of the researchers, many of who are foreigners.

**Basic Level Cause Map** - Start with simple Why questions.

**Basic Cause-and-Effect**



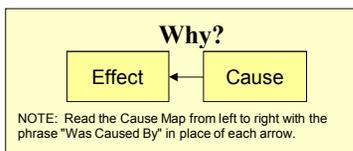
Children from the village liked to play in a nearby hollow tree filled with Angolan free-tailed bats. Researchers believe that the boy may have come into contact with either bats infected with Ebola or their feces.

Cause Mapping is a Root Cause Analysis method that captures basic cause-and-effect relationships supported with evidence.

## CAUSE MAPPING

Problem Solving • Incident Investigation • Root Cause Analysis

- Step 1 Problem** - What's the Problem?
- Step 2 Analysis** - Why did it happen?
- Step 3 Solutions** - What will be done?



For a free copy of our Root Cause Analysis Template in Microsoft Excel, used to create this page, visit our web site.

**ThinkReliability**

Investigate Problems. Prevent Problems.  
Houston, Texas 281-412-7766 ThinkReliability.com

Copyright ThinkReliability 2015