

Study Finds that Fukushima Fallout is Affecting Babies in US

West Coast of US
April 2013

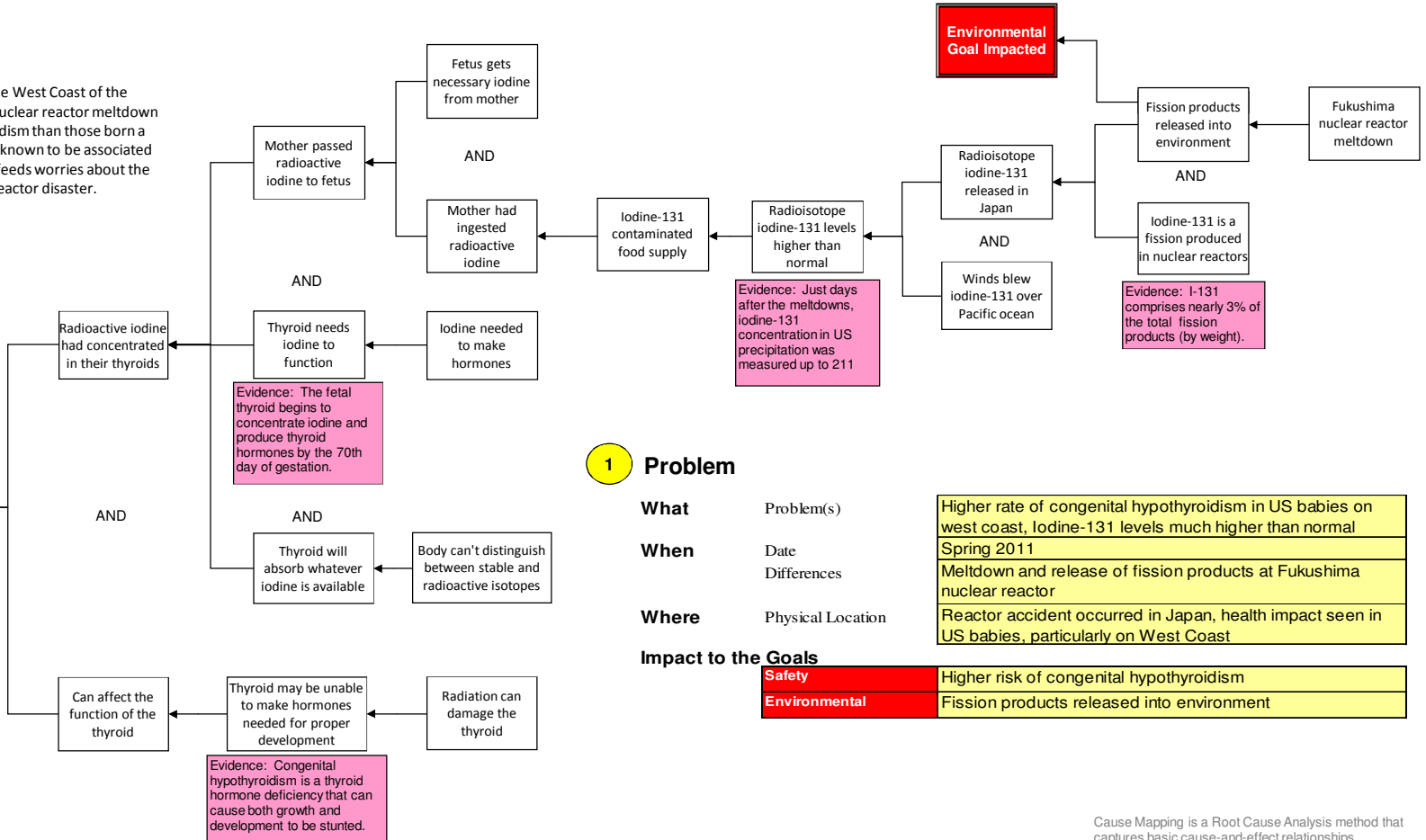
A recent study found that babies born on the West Coast of the United States shortly after the Fukushima nuclear reactor meltdown have a higher rate of congenital hypothyroidism than those born a year earlier. Thyroid issues have long been known to be associated with exposure to radiation and this finding feeds worries about the long term and long distance impact of the reactor disaster.

2 Analysis

Safety Goal Impacted

Higher risk of congenital hypothyroidism

Evidence: A study found that babies born in the western United States shortly after the Fukushima nuclear reactor meltdown were 28% more likely to suffer from congenital hypothyroidism.



1 Problem

What	Problem(s)	Higher rate of congenital hypothyroidism in US babies on west coast, Iodine-131 levels much higher than normal
When	Date	Spring 2011
	Differences	Meltdown and release of fission products at Fukushima nuclear reactor
Where	Physical Location	Reactor accident occurred in Japan, health impact seen in US babies, particularly on West Coast
Impact to the Goals		
	Safety	Higher risk of congenital hypothyroidism
	Environmental	Fission products released into environment

3 Solutions

The final step in the Cause Mapping process is to develop solutions that prevent the issue from reoccurring. In this example, many people are analyzing the disaster at Fukushima to ensure that a similar nuclear accident never happens again. In the specific case of congenital hypothyroidism, the infants can be treated with thyroid hormone replacement medication.

High Level

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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

Step 1 **Problem** What's the

Step 2 **Analysis** Why did it happen?

Step 3 **Solutions** What will