

1 Problem

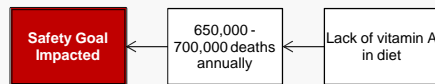
| | | |
|--------------|----------------------------|---|
| What | Problem(s) | Preventable blindness in children and deaths caused by vitamin A deficiency |
| When | Date | Ongoing |
| | Different, unusual, unique | ?? |
| Where | Facility, site | More than half of all countries, especially in Africa and South-East Asia |
| | Unit, area, equipment | N/A |
| | Task being performed | Nutrition |

Impact to the Goals

| | |
|---------------|--|
| Safety | 650,000 - 700,000 deaths annually |
| | >250,000 children going blind annually |

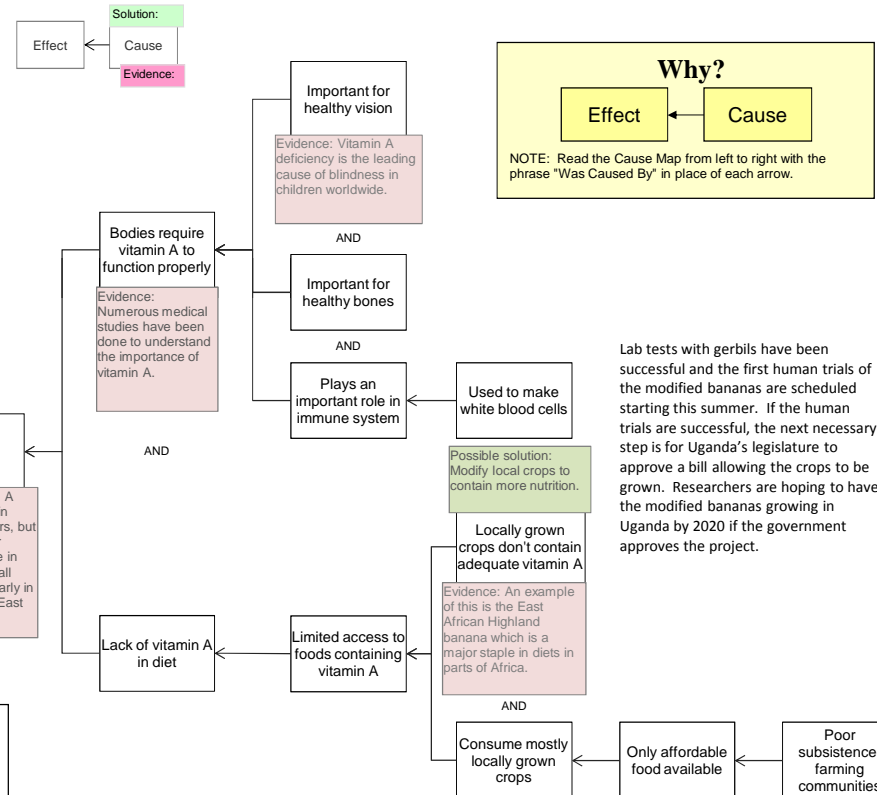
2 Analysis

Basic Level Cause Map - Start with simple Why questions.



Basic Cause-and-Effect

Bodies use vitamin A in a number of ways. For example, vitamin A is important for healthy vision and a lack of it will result in blindness. Vitamin A has been shown to play an important role in the immune system. Diets in some regions of the world lack enough vitamin A because they are poor subsistence-farming communities that predominantly consume locally grown crops and the local crop don't contain sufficient vitamin A.

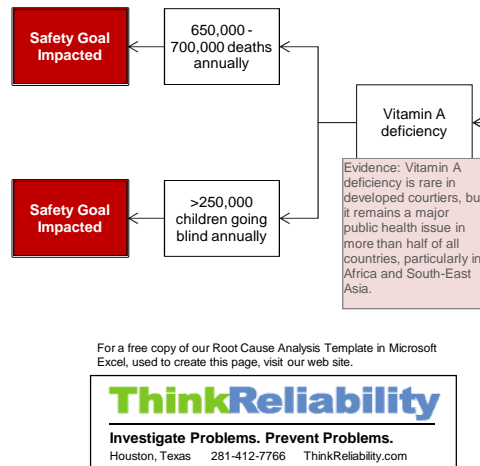


3 Solutions

There have been a number of different ways to help reduce the occurrence of vitamin deficiency such as distribution of vitamins and introduction of new crops, but the problem of vitamin deficiency is still a widespread issue. This led to the idea of genetically modifying local crops to be more nutritious. The idea behind the "super banana" is that they would look the same as other East African Highland bananas and grow in the same conditions, but that they would be enriched with additional nutrients. The inside of the "super bananas" is more orange than regular East African Highland bananas, but the outside looks the same.

More Detailed Cause Map -

Add detail as information becomes available.



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

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BATTLING VITAMIN A DEFICIENCY

Can a "Super Banana" Reduce Vitamin A Deficiency?

Vitamin A deficiency is rare in developed countries but it remains a major public health issue in more than half of all countries, especially in Africa and South-East Asia. Researchers at the Queensland University have created a "super banana" genetically engineered to contain alpha- and beta-carotene that they hope will reduce vitamin A deficiency in parts of the world where bananas are a staple crop.

"Good science can make a massive difference here by enriching staple crops such as Ugandan bananas with pro-vitamin A and providing poor and subsistence-farming populations with nutritionally rewarding food."

-Project leader, Queensland University professor James Dale

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? |