

1 Problem

What	Problem(s)	Air quality failure, operating rooms closed
When	Date	February 17, 2016
	Different, unusual, unique	Inadequate funding
Where	Facility, site	Long Island, New York
	Unit, area, equipment	Veterans Affairs Medical Center
	Task being performed	Any use of operating rooms

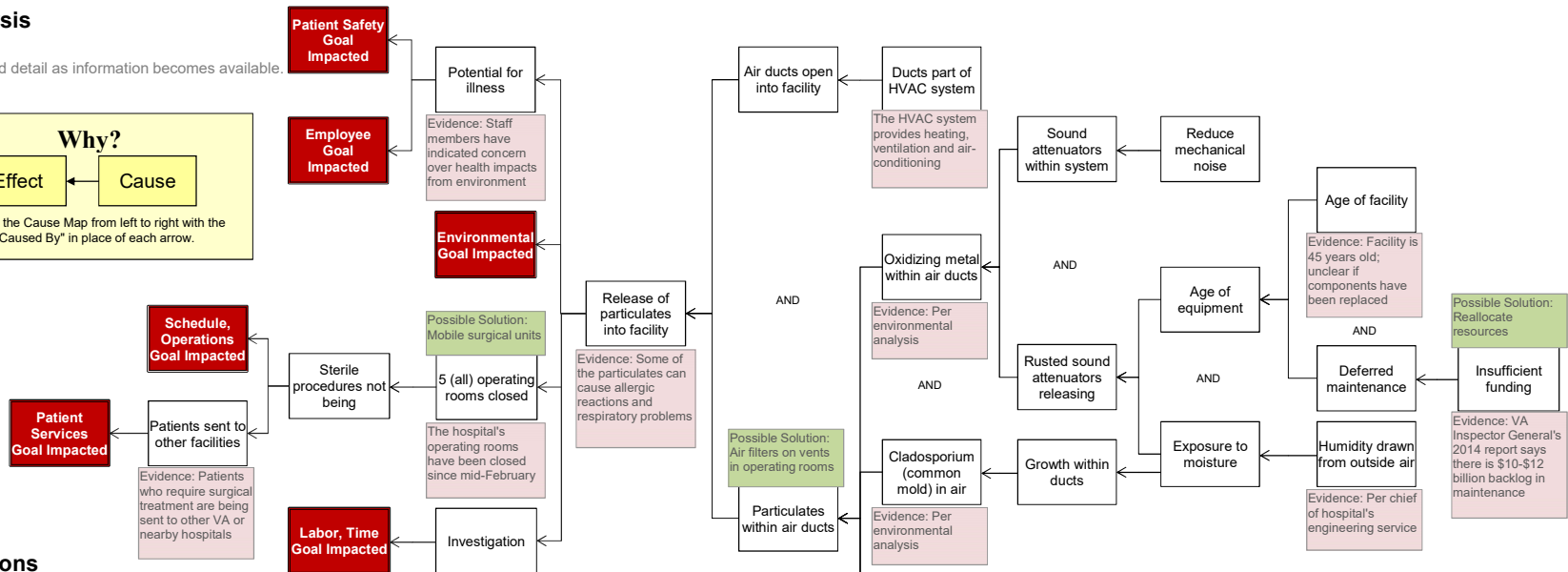
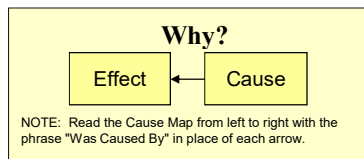
Impact to the Goals

Patient Safety	Potential for illness
Employee Safety	
Environmental	Release of particulates into facility
Patient Services	Patients sent to other facilities
Schedule/ Operations	Sterile procedures not being performed
Labor/ Time	Investigation

Frequency	Significant problems with air system last year
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2 Analysis

Cause Map - Add detail as information becomes available.



3 Solutions

Once the causes of the problems (or impacted goals) have been determined, the last step is to implement action items to reduce the risk of the problem recurring. There are two parts to this step: brainstorming possible solutions, and determining which will be most effective to meet the organization's needs. The hospital considered bringing mobile surgical units and installing high efficiency particulate air filters in the vents in the operating rooms. The cost of the mobile surgical units (over \$70,000 per month) led the hospital to select only the solution of the air filters. At least one operating room is expected to be ready to return to service June 1st.

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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OPERATING ROOMS CLOSED AT "CRUMBLING" VA HOSPITAL

Cause Map

Patients are being sent to other facilities for sterile surgeries

On February 17, 2016, the 5 operating rooms at a New York Veterans Affairs (VA) hospital were closed due to particulates falling from the air ducts. An environmental analysis determined that the particulates were rust, crumbling concrete, fiberglass fibers, and cladosporium (a common mold). These types of contaminants typically result from aged equipment exposed to moisture. Aging equipment is part of the \$10-12 billion maintenance backlog at the VA department.

"The dust is depositing on HVAC registers, ceilings, walls, and on medical equipment. Maintenance continues to clean the surfaces but, as the staff has observed, the dust reappears within a short time. At least three staff members have indicated their concern that this environment has affected them. They have been sent to employee health and to their individual physicians."

- Email from engineer & safety officer to administrators at the hospital

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?