1 Problem

What	Problem(s)	Passenger stops breathing, loses heartbeat
When	Date	Spring 2013
	Different, unusual, unique	Travel conditions may provoke incidents; 50% chance of doctor being onboard
Where	Geographic location	Over Atlantic Ocean
	Unit, area, equipment	Airplane
	Task being performed	Flight from Johannesburg to Atlanta

Impact to the Goals

Patient Safety	Near miss for passenger death
Employee Impact	Employees inadequately prepared for medical emergencies ?
Organization	Plane diverted to Miami
Patient Services	Ventilation bag did not connect to oxygen tank
Labor, Time	Other passengers called on to treat sick passenger

Frequency	44,000 inflight emergencies per year (Per NEJM: 1 medical emergency per 600 flights)

2 Analysis

Why?

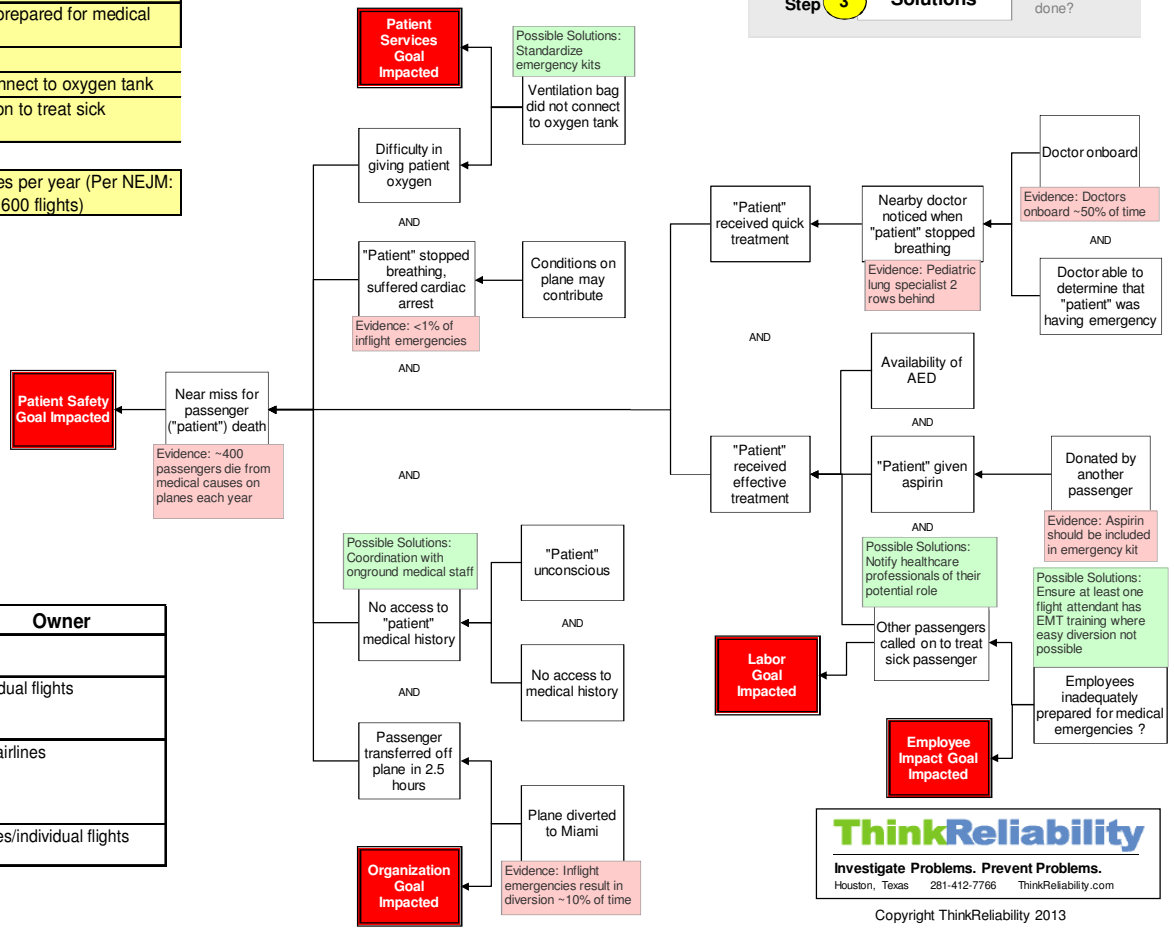
Effect ← Cause

NOTE: Read the Cause Map from left to right with the phrase "Was Caused By" in place of each arrow.

3 Solutions

No.	Action Item	Cause	Owner
1	Standardize emergency kits	Ventilation bag did not connect to oxygen tank	FAA
2	Notify healthcare professionals of their potential role	Other passengers called on to treat sick passenger	Individual flights
3	Ensure at least one flight attendant has EMT training where easy diversion not possible	Employees inadequately prepared for medical emergencies ?	FAA/airlines
4	Coordination with onground medical staff	No access to "patient" medical history	Airlines/individual flights

Inflight Medical Emergencies



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?

ThinkReliability

Investigate Problems. Prevent Problems.

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