Broken Glass

Example File

1 Problem

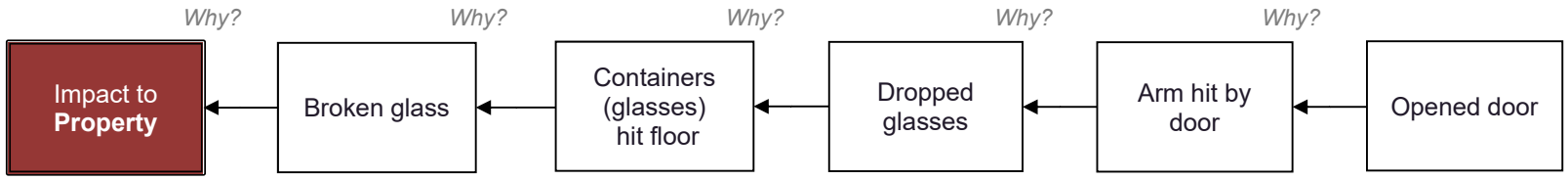
What	Problem(s)	Broken glass, dropped glasses, door hit arm
When	Date	February 7, 2019
	Time	8:30 AM
	Different, unusual, unique	People over for a movie last night, dishes left out
Where	Facility, site	House
	Unit, area, equipment	Between living room and kitchen
	Task being performed	Clean-up, picking up glasses

Impact to each Goal

	negative effects		
Safety	None		
Production, Schedule	Delay ?		
Property, Equip, Mtls	Replaced two glasses	$	5.00
Labor, Time	hrs ?		
	This incident	$	5.00
Frequency	1x		
	Annualized Cost	$	-

2 Analysis

5-Why Cause Map



This PDF shows six different Cause Maps for the Broken Glass incident: a 2-Why, 5-Why, 9-Why, 21-Why, 27-Why and a 35-Why with a variety of solutions options.

The Cause Maps in this file are accurate; they're just at different levels. As detail is added to the analysis the explanation becomes more complete. The Cause Mapping method makes it easier to see different points of view which helps reveal more solutions. Changing one of the causes changes the incident. Changing more than one can make the risk significantly lower.

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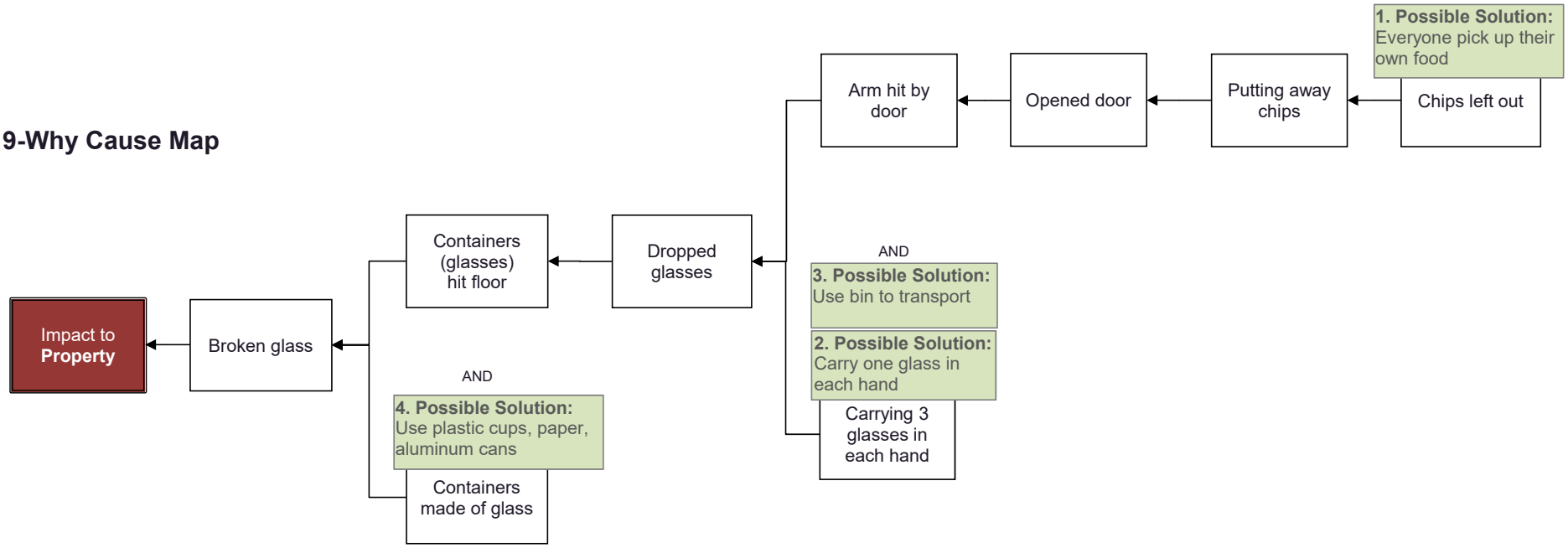
Broken Glass

This 9-Why Cause Map is a simple way to point out the three different issues within this incident:

Cause	Possible Solution
Chips left out	1. Everyone pick up their own food
Carrying 3 glasses in each hand	2. Carry one glass in each hand
	3. Use bin to transport glasses
Containers made of glass	4. Use plastic cups, paper, aluminum cans

And there's more that can be added to this analysis depending on how far you want to dig. What is your organization's problem solving capability? This level of detail may be sufficient. It simply depends on your organization's risk tolerance.

9-Why Cause Map



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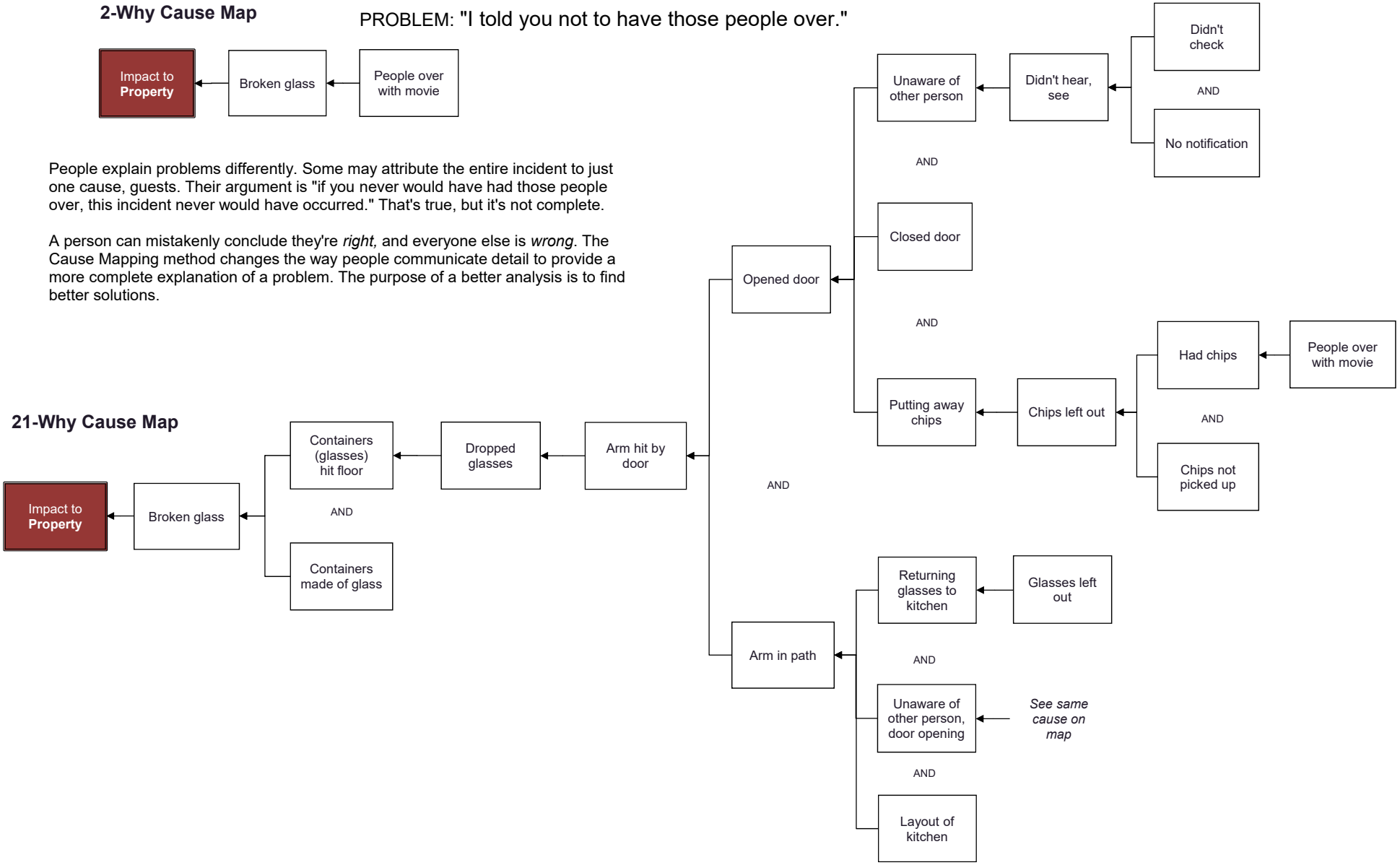
2-Why Cause Map

PROBLEM: "I told you not to have those people over."

People explain problems differently. Some may attribute the entire incident to just one cause, guests. Their argument is "if you never would have had those people over, this incident never would have occurred." That's true, but it's not complete.

A person can mistakenly conclude they're *right,* and everyone else is *wrong*. The Cause Mapping method changes the way people communicate detail to provide a more complete explanation of a problem. The purpose of a better analysis is to find better solutions.

21-Why Cause Map



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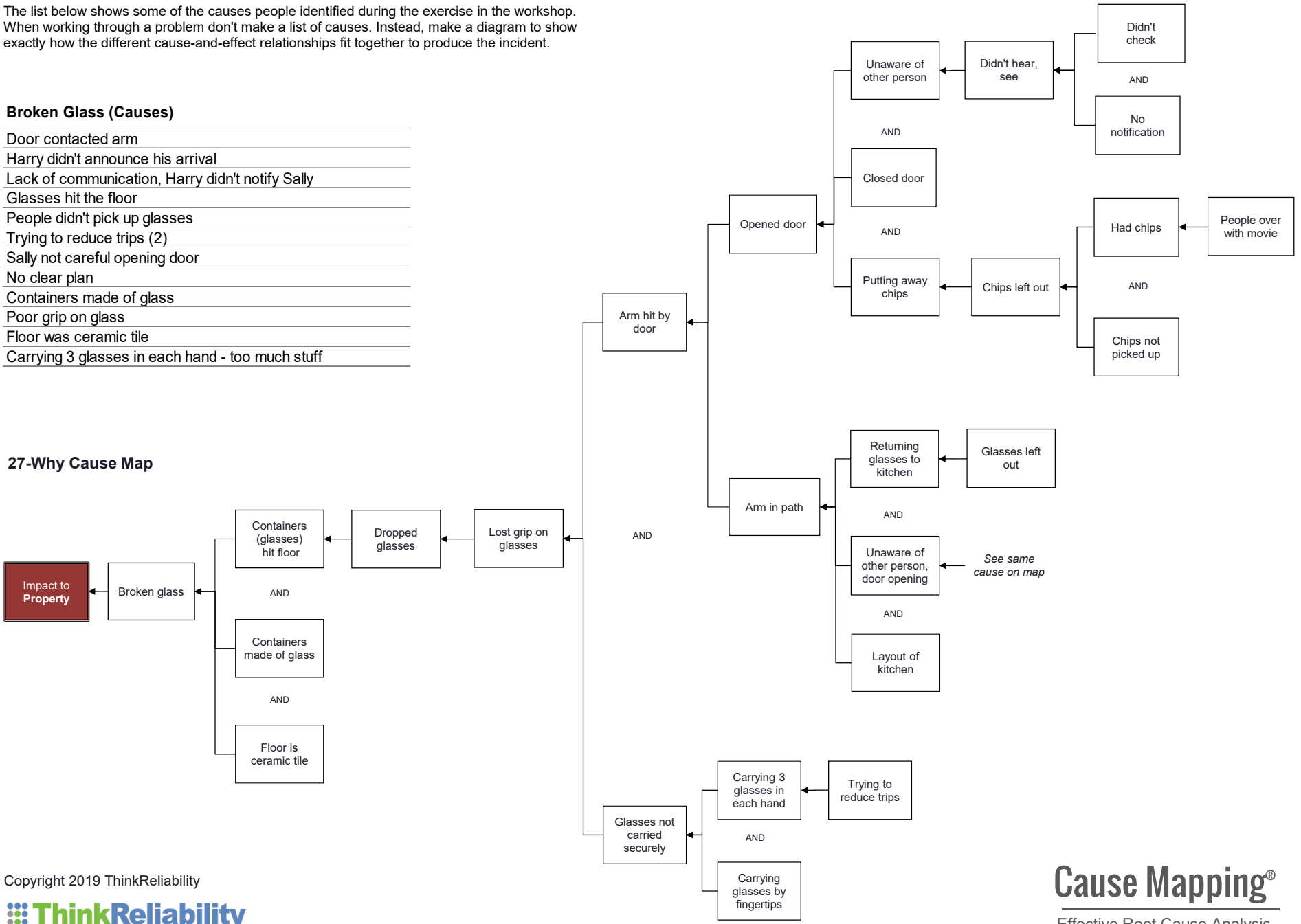
The list below shows some of the causes people identified during the exercise in the workshop. When working through a problem don't make a list of causes. Instead, make a diagram to show exactly how the different cause-and-effect relationships fit together to produce the incident.

Broken Glass (Causes)

Door contacted arm
Harry didn't announce his arrival
Lack of communication, Harry didn't notify Sally
Glasses hit the floor
People didn't pick up glasses
Trying to reduce trips (2)
Sally not careful opening door
No clear plan
Containers made of glass
Poor grip on glass
Floor was ceramic tile
Carrying 3 glasses in each hand - too much stuff

27-Why Cause Map



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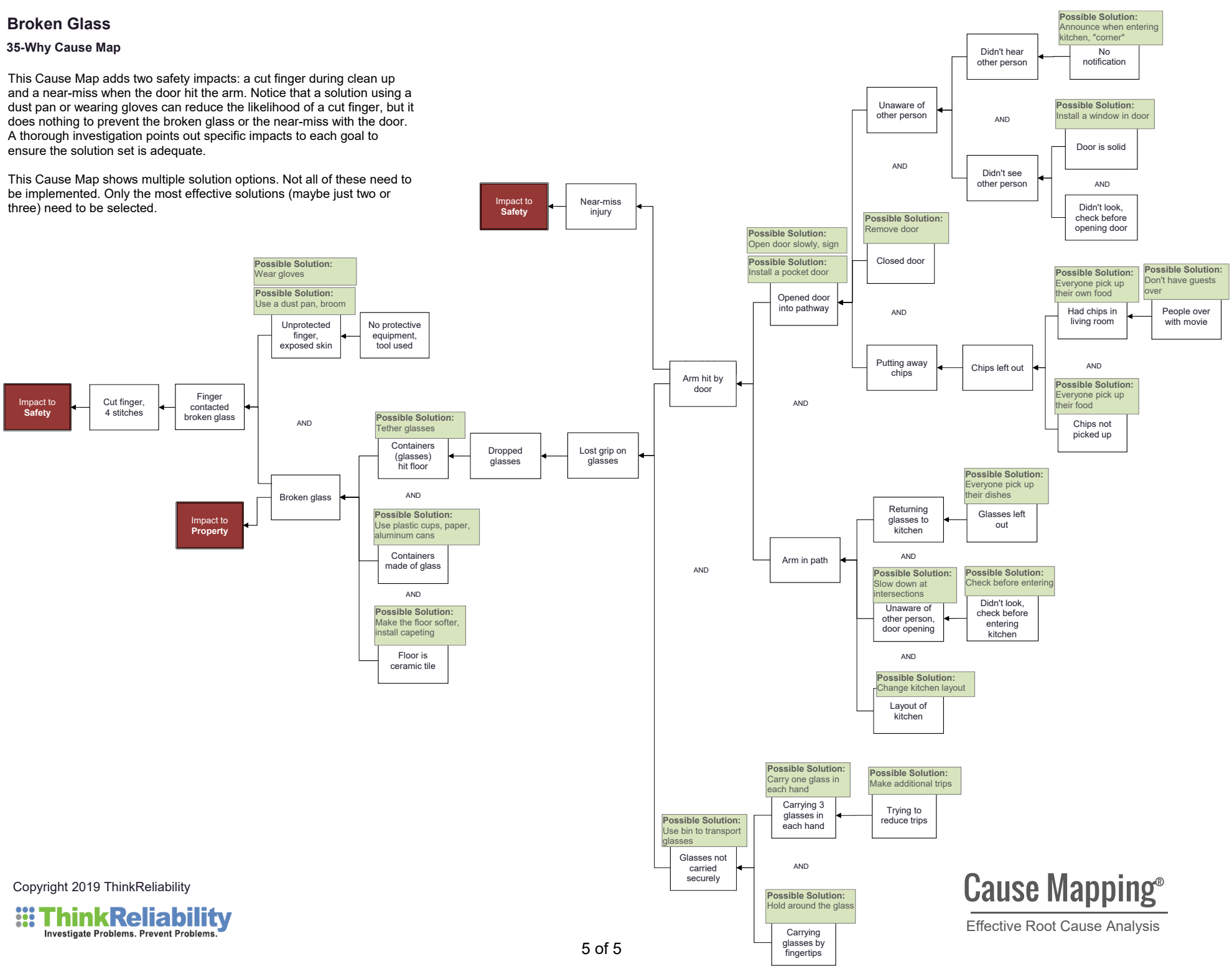
35-Why Cause Map

This Cause Map adds two safety impacts: a cut finger during clean up and a near-miss when the door hit the arm. Notice that a solution using a dust pan or wearing gloves can reduce the likelihood of a cut finger, but it does nothing to prevent the broken glass or the near-miss with the door. A thorough investigation points out specific impacts to each goal to ensure the solution set is adequate.

This Cause Map shows multiple solution options. Not all of these need to be implemented. Only the most effective solutions (maybe just two or three) need to be selected.



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