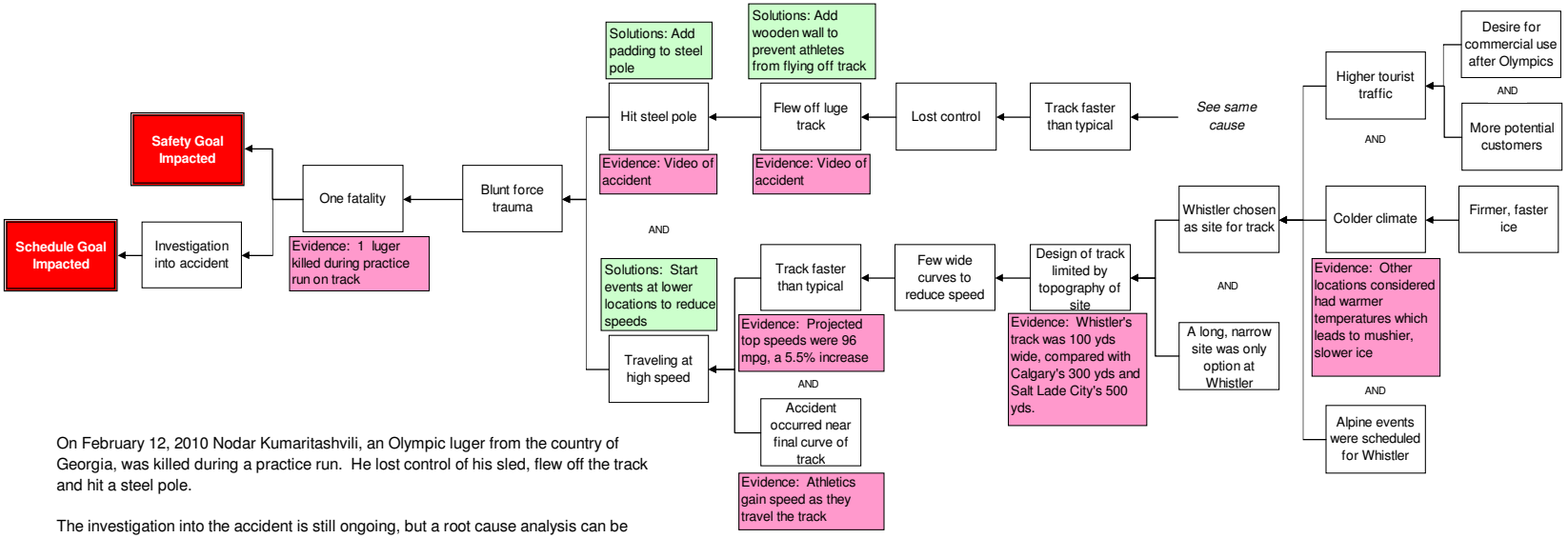
Death of Luger at 2010 Winter Olympics
Whistler Resort, Vancouver Canada
February 12, 2010

A thorough root cause analysis built as a Cause Map can capture all of the causes in a simple, intuitive format that fits on one page.

Even more detail can be added to this Cause Map as the analysis continues. As with any investigation the level of detail in the analysis is based on the impact of the incident on the organization's overall goals.



On February 12, 2010 Nodar Kumaritashvili, an Olympic luger from the country of Georgia, was killed during a practice run. He lost control of his sled, flew off the track and hit a steel pole.

The investigation into the accident is still ongoing, but a root cause analysis can be started with the information that is available. This accident obviously impacts the safety goal because an athletic was killed and it also had potential to impact the schedule goal because the track was closed during the initial investigation.

There are a number of causes that can be added to the Cause Map. One of the more obvious causes for the accident is that the athletic was traveling at high speeds. This occurred because the crash happened near the bottom of the track so the sled was near its top speed. Additionally, the Vancouver Olympic track is also a particularly fast track. Top speeds on the track were predicted to be 96 mph, nearly 6 miles faster than the standing 2000 world speed record.

How did the track get designed to be so much faster than typical tracks? There are a number of causes that contributed to fast design. The designers choose Whistler as the site of the track because Whistler has a colder climate than the alternatives, resulting in firm, fast ice and because there is high tourist traffic there that would help make the track a commercial success after the Olympics. Whistler was also the site of the Olympic alpine events.

The land that was available at Whistler was long and narrow. The site was a valley approximately 100 yards by 800 yards. By comparison, the Calgary track was about 300 yards wide and Salt Lake City's track was 500 yards. Designing a track to fit in the available region meant the track couldn't include any long curves that slow down speed as is typical.

The result was the fastest track in the history of the sport.

As the investigation continues, more details become available and they can be added to the Cause Map.

In order to ensure safety during the Olympic Games, several solutions were implemented following the accident. A wooden wall was added to the curve where the accident occurred to keep athletics on the track, the steel poles were padded and events were started lower on the track to limit the maximum speed. The lower start was predicted to slow top speeds in the men's events by about 5 mph.

There have been several crashes on the course since the accident, but thankfully no farther significant injuries have occurred.

Cause Map
Intermediate Level

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Why?

Effect ← Cause

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