

Hepatitis B and C Infections U.S., Ongoing

Step 1. Outline

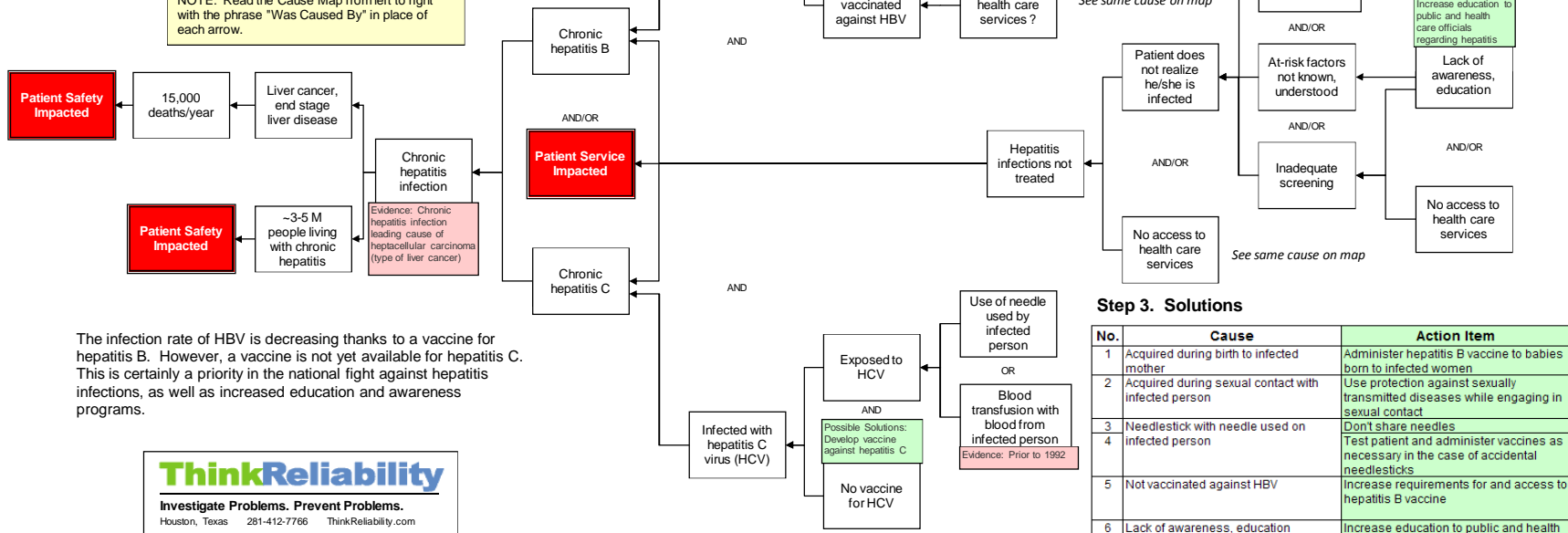
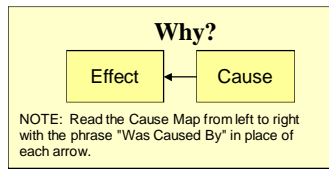
What	Problem(s)	Hepatitis B and C Viruses (HBV and HCV)
	Date	Ongoing
When	Differences	Hepatitis B and C are asymptomatic
		Chronic hepatitis infections 3-5 times more common than HIV
Where	Physical Location	U.S.
	Process (work being done)	HBV: transmitted via birth, sexual contact, infected needles/ticks HCV: pre-1992 blood transfusion, infected needles/ticks

Impact to the Goals

Patient Safety	~15,000 associated deaths/year
	~3-5 M people living with chronic hepatitis
Patient Services	Hepatitis infections not treated

Step 2. Cause Map

Detail Level



The infection rate of HBV is decreasing thanks to a vaccine for hepatitis B. However, a vaccine is not yet available for hepatitis C. This is certainly a priority in the national fight against hepatitis infections, as well as increased education and awareness programs.



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We begin with the impact to the goals. First, that there are approximately 15,000 deaths per year associated with chronic HBV and HCV. Additionally, 3-5 million people are estimated to be living with chronic HBV and HCV. These are both impacts to the patient safety goal. In many cases, these infections are not treated. This is an impact to the patient services goal.

Once we've defined the incident in respect to the goals, we can begin our Cause Map. We begin with an impact to the goals and ask "why" questions until all the causes are on the Cause Map. In this case, the deaths are caused by chronic HBV and HCV, which are caused when a person is infected and not treated. Infections can result from being born to an infected mother, infected blood transfusions (before blood was tested for HCV), sexual contact with an infected partner, sharing needles with an infected person, or needles/ticks with an infected needle.

Most typically, people who are infected with HBV or HCV do not seek treatment because they are unaware they are infected due to the asymptomatic nature of hepatitis. Persons may not be screened even in high risk situations because either they or their healthcare providers do not realize the risk, or they do not have adequate access to healthcare.

Step 3. Solutions

No.	Cause	Action Item
1	Acquired during birth to infected mother	Administer hepatitis B vaccine to babies born to infected women
2	Acquired during sexual contact with infected person	Use protection against sexually transmitted diseases while engaging in sexual contact
3	Needlestick with needle used on infected person	Don't share needles
4		Test patient and administer vaccines as necessary in the case of accidental needles/ticks
5	Not vaccinated against HBV	Increase requirements for and access to hepatitis B vaccine
6	Lack of awareness, education	Increase education to public and health care officials regarding hepatitis
7	No vaccine for HCV	Develop vaccine against hepatitis C