Please watch the Nova episode “Vaccines - Calling the Shots” that aired on September 10, 2014. The episode is available at <http://www.pbs.org/wgbh/nova/body/vaccines-calling-shots.html>

1.)a.) What percentage of U.S. parents vaccinate their children according to the recommended schedule?

b.) How many immunizations are recommended for children during their first two years of life?

c.) How many diseases do they prevent against?

2.)a.) What is the formal name for whooping cough?

b.) Which type of microbe causes whooping cough?

c.) Whooping cough is a preventable disease that is re-emerging. How many cases of whooping cough were there in 2012?

3.)a.) How many cases of the preventable disease measles were there in Europe in 2011?

b.) Where in the U.S. was the 2013 measles outbreak?

c.) How is measles transmitted? How long can it exist in the air and on objects?

4.)a.) What percentage of people without immunity that are exposed to measles get the disease?

b.) How many people in the Brooklyn outbreak were exposed to measles and how many were infected?

c.) Were the people that were infected vaccinated?

5.)a.) What is the principle of immunization that was observed by Brahmans one thousand years ago?

b.) Do infants have a mature immune system?

c.) Describe what occurs during vaccination. Describe the germ and what the cells of the immune system do.

6.) What two things determine whether a person gets a disease?

b.) What allowed the Brooklyn measles outbreak to be contained and not spread to millions of people?

c.) What percent of a community must be vaccinated to prevent outbreaks of highly infectious diseases like measles?

d.) In France between 2007-2011, what was the measles vaccination rate? What occurred as a result of this low vaccination rate?

e.) As vaccination rates decrease, what occurs?

7.)a.) Many parents are concerned about vaccinations. What are they concerned about?

b.) Luke Philbin had continuous severe seizures (from his Dravet syndrome) soon after his vaccinations. What did Dr. Ingrid Scheffer discover about the cause of Dravet syndrome and the relationship between Dravet syndrome and vaccinations?

c.) Why did Luke Philbin’s father said that they must rely on other people having their kids vaccinated to protect Luke? Explain.

8.)a.) David Salamone contracted polio from the oral polio vaccine. Explain the risk associated with the oral polio vaccine.

b.) Before polio vaccination, how many children suffered paralysis and death from polio?

9.) Alison Singer researched the scientific studies on autism and vaccination. What did she find in the scientific literature? Be as specific as possible.

10.)a.) Which virus is the most common cancer-causing virus? What percentage of people will get this virus?

b.) Which cancers are caused by this virus?

c.) Who is recommended to receive the HPV vaccine?

11.) Overall, what is the risk of severe reactions from vaccinations?