**Measles**

*Research provided by the Kansas Association of Local Health Departments*

***What is it?***

As one scientist called it, measles was “as inevitable as death and taxes”.

Measles is a viral disease that produces rashes and inflammation all over the body. Symptoms typically begin 7 to 14 days after initial infection and include a high fever (typically over 104), cough, and watery eyes. Measles is very serious, with many children younger than 5 and adults over 20 experiencing complications such as encephalitis. 1 in 5 individuals who get the disease are hospitalized due to complications. Measles is highly infectious, with 1 person able to infect 18+ people.

***History of Measles***

Measles and Smallpox were discovered around the same time in the early 11th century when the measles virus diverged from the rinderpest virus in cattle. Because of the high infection rate, the disease spread quickly through population centers. There are accounts of measles in the United States and Americas as early as the 1600s.

By the 1900s and until the 20th century, there were hundreds of thousands of cases and deaths worldwide. Deaths began to decline after treatment became available, however, cases continued until vaccine development in 1963. Until the vaccine, it was expected that every child would get measles at least once before they turned 15 years old.

***Vaccine Development & MMR***

The first measles vaccine was licensed in the United States in 1963 after John Enders used the Edmonston-B strain of the measles virus to turn it into a vaccine. In 1968, an even weaker form of the virus was used in a new vaccine that is available throughout the world.

In 1971, Maruice Hilleman developed what we know as the MMR vaccine, which combined the measles, mumps, and rubella vaccine together to encourage less trips to the doctor’s office. A booster dose was recommended in 1989. In addition, a MMRV vaccination is currently licensed, which also includes the Chickenpox vaccination. The current vaccine is 97% effective at preventing measles.

***Elimination***

In 1978, The CDC determined that measles should be fully eliminated from the United States and was soon followed by the Pan American Health Organization. The disease was eliminated from the continent by 2015 through vaccines. However, elimination has now been reversed due to outbreaks.

***The Andrew Wakefield Study & Rise of the Anti-Vaccine Movement***

In 1998, then Dr. Wakefield published a fraudulent study about 12 children he believed experienced autism-like symptoms after the administration of the MMR vaccine. This study supported a competing vaccine and in 2010, the study was deemed dishonest and fraudulent, and Wakefield lost his medical license. However, the damage had already been done.

Because of this study, many organizations such as the Children’s Health Defense (founded by RFK Jr.) and sub-organizations in Kansas have become active and encourage vaccines to be skipped.

What We Can Learn

Not surprisingly, we can learn that diseases are infectious and the easiest way to prevent disease is to vaccinate. In addition, [the CDC released their own study that disproves vaccines can cause Autism](https://web.archive.org/web/20081008040738/http:/www.cdc.gov/vaccinesafety/concerns/mmr_autism_factsheet.htm). Measles is a deadly disease for many and by vaccinating, we can increase herd immunity.