Vancomycin Resistant Enterococcus (VRE)

Vancomycin resistant Enterococcus is a Class C Disease and must be reported to the Office of Public Health within five business days.

Enterococci are common bacteria found in human intestines and the female genital tract and in the environment. There are many species and they rarely cause illness in healthy people. Vancomycin is an antibiotic that is often used to treat infections caused by enterococci. In some instances, enterococci have become resistant to this drug and thus are called vancomycin resistant enterococci (VRE).

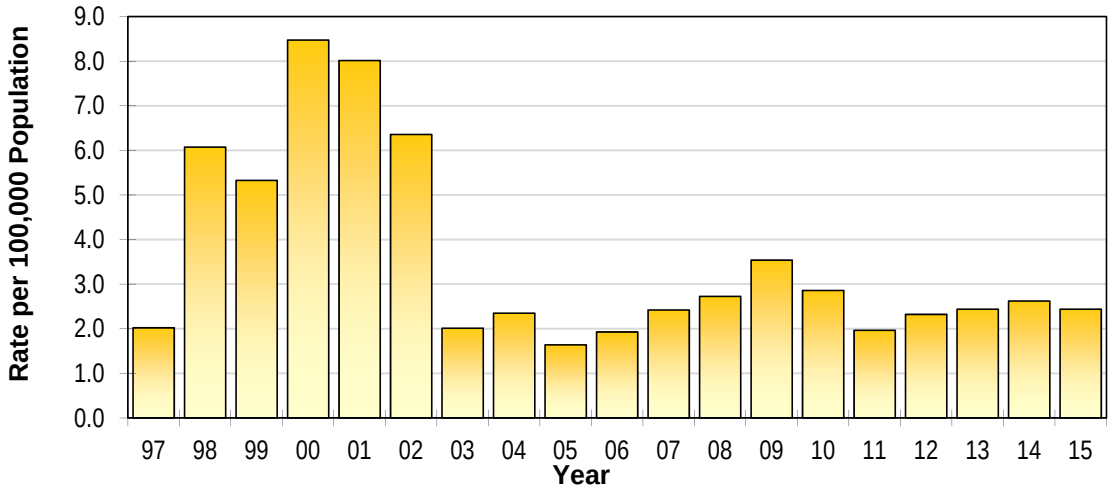
Most VRE infections occur in hospitals and involve infection of the urinary tract, blood stream or wounds. Those at higher risk of becoming infected with VRE include:

- persons who have previously been treated with vancomycin and combinations of other antibiotics like penicillin and gentamicin
- persons who are hospitalized, especially when they receive antibiotic treatment for long periods of time
- persons with weakened immune systems such as patients in Intensive Care Units (ICUs), in cancer or transplant wards, or who are infected with HIV
- persons who have undergone surgical procedures such as abdominal or chest surgery
- persons with medical devices that stay in for some time - such as urinary catheters or central intravenous catheters.

VRE became a reportable disease in Louisiana in 1998. Data from the Centers for Disease Control and Prevention (CDC) showed that VRE caused about one out of every three infections in hospital ICUs in 2004.

After 2002, reporting requirements were changed to include only invasive VRE infections, causing a drop in cases reported to the Office of Public Health (OPH) in Louisiana. This decrease is a surveillance artifact and does not mean that actual numbers of infections are decreasing (Figure 1).

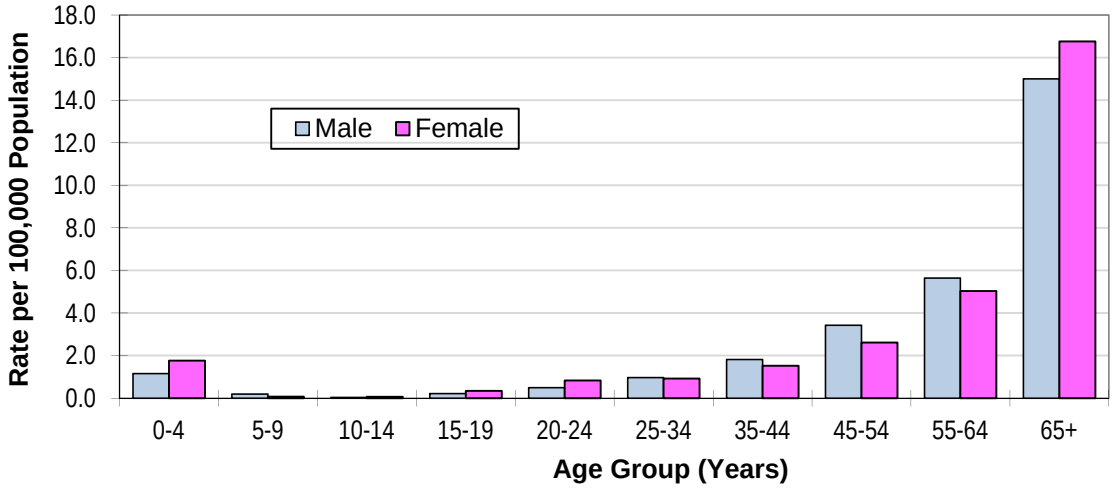
Figure 1: Reported cases and incidence of VRE – Louisiana, 1997- 2015



VRE primarily affects older adults. Adults older than 65 years of age are more likely to have characteristics that put them at higher risk of contracting VRE and so have higher incidence rates than other age groups. This trend holds for all races and both sexes.

Males and females show similar incidence of VRE. Over the age of 65 years, females show slightly higher rates than males (Figure 2).

Figure 2: Average VRE incidence rates by sex and age group – Louisiana, 1997-2015



Also, the VRE rate is much higher in African-Americans when compared to Whites in older populations (Figure 3).

Figure 3: Average VRE incidence rates by race and age group – Louisiana, 1997- 2015.