THE FUNCTIONS OF EPIDEMIOLOGY

Epidemiology is the study of the patterns and causes of health conditions among populations and the use of that information to address health problems. There are six major functions of epidemiology in public health:

- **Public Health Surveillance**: The ongoing collection, examination, interpretation, and use of health data to help guide decision-making and action.
- **Investigation**: After a case or cluster is identified, a public health department will often start an investigation, which may lead epidemiologists to additional people who might not otherwise know that their health is at risk.
- **Analytic Studies**: A detailed examination (an analysis) is sometimes needed to dig a little deeper into the information that has been collected. Epidemiologists are trained to do analytic studies and interpret and communicate findings from those studies.
- **Evaluation**: This process involves determining the effectiveness and impact of public health activities. This information can be used to improve future public health action.
- **Collaboration**: Epidemiology is a “team sport.” Collaboration can help ensure that information flows well between public health professionals, healthcare workers, and other members of the community.
- **Policy Development**: Public health epidemiologists often provide input and recommendations about disease control strategies and healthcare policy to officials responsible for policy development, implementation, and evaluation.

*Adapted from the CDC course “Principles of Epidemiology in Public Health Practice.”*