The idea of keeping track of causes of death may have originated with John Graunt, an English haberdasher, who began to study the death records that had been kept by the London parishes since 1532. In 1662, Graunt began publishing *Natural* *and* *Political* *Observations* *Made* *upon* *the* *Bills* *of* *Mortality,* in which he categorized deaths according to their cause. Importantly, he noted that urban death rates were greater than those in rural areas and speculated that this might relate to overpopulation and poverty.

The first Industrial Revolution, 1760 to 1830, took place primarily in England and brought an explosion of development with both good and bad consequences. Many new jobs were created, primarily in the cities. And it brought new goods and increased trade.

However, mass migration to the cities severely taxed the infrastructure, causing overcrowding and massive contamination of the environment. In addition to accumulation of waste and garbage, there was contamination of drinking water and occupational exposure to scores of harmful substances.

By 1830, there was increasing concern about the plight of the working poor. In addition, the monarchy tended to assess the power of the state based not only on its commerce and trade, but also by the size of the population and the health and fitness of its workforce. The earlier work of John Graunt was compelling, and in 1837, the General Registrar's Office was established to record births, deaths, and marriages in England and Wales. The General Registrar's office. Was an important factor in propelling the development of public health, because it provided a systematic mechanism for keeping track of disease frequency and providing the data upon which decisions could be based and appropriate actions initiated.

In this module, we will introduce measures of frequency and then explore how these measures can be compared in order to quantify the association between health-related exposures and outcomes.