

Cognitive Principles, Cognitive Power

London's cholera epidemic of 1854

In 1854, Dr John Snow investigated a cholera epidemic by visually mapping locations of pumps that supplied London residents with drinking water against locations of cholera deaths. He defeated the epidemic by removing the handle from the pump that sat within the highest density of cholera deaths. At the same time, he gave credence to his then speculative hypothesis that cholera was a waterborne disease.

In resolving London's cholera crisis and in advancing his hypothesis, John Snow exploited what is now the well-known cognitive design principle that information should be represented in a manner that reflects the cognitive structure of the problem.



The arrow points to the offending pump. The dots represent cholera deaths.

Source: Tufte, Edward R. (1997). Visual Explanations. Cheshire, CT: Graphics Press.