MOMENTS IN MEDICINE

ON THE MODE OF COMMUNICATION OF CHOLERA

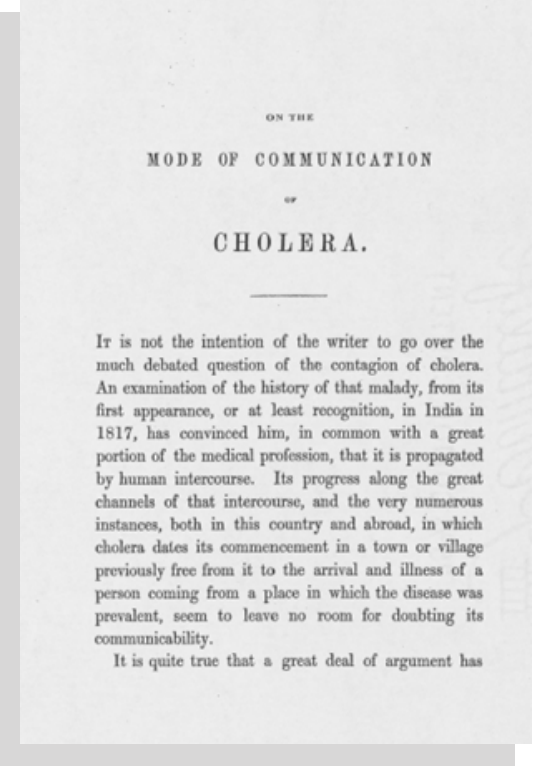
John Snow, 1849

BODLEIAN LIBRARIES UNIVERSITY OF OXFORD

This text sets out John Snow's theory of how cholera was transmitted. By focusing on how the pathogen spread, rather than on its precise identification, Snow was able to work out that sewage-contaminated water was the likely cause of the cholera outbreaks that had been devastating Britain since 1831.

Cholera was incurable, spread rapidly, and could kill its victims within 12 hours. This created a climate of panic among both governmental authorities and the general public. Since no treatment existed, doctors focused on prevention, with most still believing that the disease was spread through miasma ('bad air').

You can read the whole text online from the US National Library of Medicine website.



ON THE

MODE OF COMMUNICATION

OF

CHOLERA.

It is not the intention of the writer to go over the much debated question of the contagion of cholera. An examination of the history of that malady, from its first appearance, or at least recognition, in India in 1817, has convinced him, in common with a great portion of the medical profession, that it is propagated by human intercourse. Its progress along the great channels of that intercourse, and the very numerous instances, both in this country and abroad, in which cholera dates its commencement in a town or village previously free from it to the arrival and illness of a person coming from a place in which the disease was prevalent, seem to leave no room for doubting its communicability.

It is quite true that a great deal of argument has

Bodleian Libraries 49.2161 (9)

Snow realised that symptoms first occured in the digestive system. This led him to propose that the cause was through the accidental ingestion of infected faeces. His personal observations of the relative numbers of deaths in various neighbourhoods suggested that the water supply was the most likely source of infection.

Snow used these findings as the basis for his investigations during the 1854 outbreak, when he famously traced the Broad Street outbreak to one water pump and, more importantly, analysed the death rates in two districts served by two rival water companies, one of which drew water from sewage-polluted sections of the river Thames.

Although his conclusions were not immediately accepted by his contemporaries, John Snow began to be recognised as an important figure in the early 1900s, and is now seen as the founder of modern epidemiology.

Questions

1. We now know that cholera is spread by water contaminated with sewage. **Describe one piece of evidence that led Snow to believe this.**
2. Snow found that it was difficult to persuade others that contaminated water caused Cholera. **Why was this?**
3. Snow describes simple health measures to combat the the spread of cholera (p30 of the digital version, or see the next page). **What are these measures?**
4. **What can we all do to prevent the spread of infectious disease in the modern world?**
5. **What is the wider importance to public health of Snow's discoveries?**

FURTHER READING

You can read more about John Snow and Cholera in this article from the Royal College of Surgeons of England.

THE HELEN HAMLYN TRUST

TRANSCRIPTION: ON THE MODE OF COMMUNICATION OF CHOLERA

John Snow, 1849

Extract from p30:

The belief in the communication of cholera is a much less dreary one than the reverse ; for what is so dismal as the idea of some invisible agent pervading the atmosphere, and spreading over the world ? If the writer's opinions be correct, cholera might be checked and kept at bay by simple measures that would not interfere with social or commercial intercourse; and the enemy would be shorn of his chief terrors. It would only be necessary for all persons attending or waiting on the patient to wash their hands carefully and frequently, never omitting to do so before touching food, and for everybody to avoid drinking, or using for culinary purposes, water into which drains and sewers empty themselves ; or, if that cannot be accomplished, to have the water filtered and well boiled before it is used. The sanitary measure most required in the metropolis is a supply of water for the south and east districts of it from some source quite removed from the sewers.