
Readers of the IJE are certainly familiar with John Snow, the British physician born in 1813, whose accurate and systematic observations allowed for the identification of water as the vehicle of cholera in London, even before the agent of the disease was identified. The observations made by John Snow are reported at the beginning of most textbooks of epidemiology and his work is classified as a milestone for applied epidemiology to public health.

Tom Jefferson has reviewed the life and professional activity of John Snow and has translated his original work ‘On the Mode of Communication of Cholera’ into Italian in a book entitled ‘Cattive acque’ (Bad Waters). The result is not only a comprehensive and interesting read about the pioneer epidemiologist but also an account of the historical context around him and of cholera, one of the scourges of those times, and the cause of devastating epidemics in urban areas.

In order to introduce Snow’s work, the book includes a brief review of British medical education at that time, of the prevalent theories about the origin and transmission of communicable diseases and of the social and health organization in the UK.

During his life, Snow was a famous anaesthesiologist. He was even called to assist Queen Victoria during the delivery of some of her children. By combining observations and experiments, Snow was able to understand and describe the effect of different doses of anaesthetics and to develop original instruments for their administration. According to Snow’s biographers, none before him had ever applied such a systematic approach to the assessment of risks and efficacy of drugs. His professional landmark was the method, now considered a model even in the current epidemiological discipline.

The same rigorous methodological approach was used in describing the recurrent epidemics of ‘Asiatic cholera’, which affected the UK in various waves. Between 1848 and 1855, Snow devoted his efforts to identifying the cause of the outbreaks. At the time when cholera was attributed to miasmas or to direct exposure to contagious cases, John Snow was able to collect relevant observations with an open mind and from these to infer for the first time the role of the contaminated water supply (the bad waters). The last edition of the text published by Snow and translated by Jefferson in his book is organized in chapters ordered to prove wrong the miasma theory and provide evidence of the role of the water supply contaminated with faecal material and consumed by infected subjects. His statements on cholera transmission are supported by the description of a series of outbreaks in different settings and locations, which show the general validity of his conclusions. The titles of each chapter are precise statements about the interpretation of the observations showing the rationale behind the inference. Public health measures to be taken accordingly to control and prevent cholera are also indicated in the last chapter of the original text.

Despite the comprehensiveness and clarity of his work, the medical authorities of his time were not convinced of the danger posed by contaminated water. How right he was, was recalled only a few years later after Snow had died, and after additional (and possibly avoidable) outbreaks. Rigorous methods and science alone are not sufficient for health promotion, but that is another story.

In the book ‘Cattive acque’, the translation of the original work by Snow is enriched by Jefferson’s side notes including either explanations about the choice of specific terms and providing additional details or comments on the method. The reader is therefore guided through the description and the inference.
made by Snow in an intellectual journey in the 19th century accompanied by feelings of respect for Snow’s methodological strength besides the actual results reached.

Copies of the geographical maps of the famous Broad Street Pump outbreak and of the Grand Experiment (with the supply network by the Southwark and Vauxhall Company and by the Lambeth Company) are also reported along with pictures, taken today, of most places in London quoted in Snow’s work.

STEFANIA SALMASO
E-mail: stefania.salmaso@iss.it

doi:10.1093/ije/dyq010
Advance Access publication 22 February 2010