

# Welcome to Volume II, Issue I of the Biostatistics and Epidemiology International Journal

Brian P. Mangum

Fiji National University, Suva, Fiji

**Correspondence:** Brian P Mangum, Fiji National University, Suva, Fiji, Email [epidemiology.doc@gmail.com](mailto:epidemiology.doc@gmail.com)

**Received:** January 01, 2019 | **Published:** January 18, 2019

Copyright© 2019 Mangum. This is an open access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Dear Colleagues and Readers:

Welcome to this latest issue of *Biostatistics and Epidemiology International Journal (BEIJ)*. It has been a pleasure to watch our journal grow rapidly over the past several issues, including the exciting news that articles published in *BEIJ* will now be assigned an ISBN identifier.

This news is not only a testament to the strength of *BEIJ* as a journal of growing renown in the epidemiology, medical, and public health community; but more importantly, it is a testament to the high quality of work that you, the global research community that has chosen *BEIJ* to disseminate your work, are producing and sharing with your colleagues around the world. Whether your research comes from the practitioners of a rural community health post in Africa, the faculty of a university in Southeast Asia, or graduate students in Australia just learning the fundamentals of research and publication, it is you that are making a difference globally. Wherever you are, you are undertaking critical epidemiological work that is changing the way in which medicine, community health, public health, and more are practiced; and in so doing, improving lives on a population-based level.

So, as we introduce this latest issue, along with the many exciting advances that *BEIJ* has accomplished since its inception, I want to take a moment to thank our loyal readers and researchers who have contributed to our success, as well as the ongoing tradition of epidemiology and biostatistics in making a real difference on a global scale.

As I reflect on the impact of the work of the global epidemiological community in combating disease, assessing interventions, and developing new treatments, I am reminded of the long history of epidemiology that predates Dr John Snow (1813-1858), who is often considered the father of modern epidemiology. Indeed, epidemiology is much older than Dr Snow's famous 1854 cholera investigation in London.

We recently celebrated the birthday of Dr Edward Jenner (17-May-1749), who is considered the father of modern immunology; but who used epidemiological methods to postulate that because milk maids in Gloucestershire were immune to smallpox, the pus in the blisters milk maids received from contracting cowpox as an occupational hazard could be used as an inoculant against smallpox. On 14-May-1796, Jenner inoculated eight-year-old James Phipps, the son of Jenner's gardener, with pus from the cowpox blisters of Sarah Nelmes. Nelmes

had caught the disease from a cow named Blossom. Incidentally, Blossom's hide is on display at St George's University in London in remembrance of her unique contribution to the science of immunology and epidemiology. Jenner's experiment was a success, even though he was ridiculed by the clergy of the time, who considered the mixing of diseased animals and humans an ungodly abomination. Despite this, and even resistance from the Royal Society, Jenner persevered, and in 1798, his results were published, and smallpox vaccinations became common, with the word for vaccine coming from the Latin word for cow, 'vacca.'

And thus, from the observations (descriptive epidemiology) and experimentation (analytical epidemiology) of Jenner, one might argue was born not only the field of immunology, but also the field of occupational epidemiology from Jenner's reflexions on the occupational hazards and diseases of milk maids.

Dozens of other examples of epidemiology in action, even before it was known as epidemiology, could be cited. This includes Dr Thomas Sydenham's (1624-1689), the London physician and academic who published a 1676 treatise entitled *Observationes Medicae*, which classified diseases, including psychological maladies often ascribed to spiritual possession at the time, as well as the various fevers which frequently impacted the population of Seventeenth Century London, based on actual scientific observations, not traditional theories or catechism. Sydenham was persecuted by his colleagues, but with time a new generation of physicians came to share his views, shaping the way in which modern epidemiology and medicine are practiced.

But perhaps the most important example when examining the history of epidemiology as it relates to scientific thought, and as we consider the contributions of the global community of researchers and readers who have made *BEIJ* and epidemiology a force for global change, is Hippocrates. Hippocrates, by rights, should hold the title of the first epidemiologist as well as the father of medicine; having published three treatises on epidemiology during his lifetime, including *Epidemic I*, *Epidemic III*, and *Airs, Waters and Places*. During his influential career, Hippocrates approached disease from a rationale, epidemiological perspective, as opposed to the supernatural one. He noted that different diseases occurred at different times of the year (rainy versus dry), in different locations (swampy versus heights), as well as looking at other environmental factors which contributed to the prevalence of disease, such as questioning whether the water source of a city came from the '...marshy soft-ground source, or is the water from the rocky heights? Is the water brackish or harsh?'

Hippocrates also observed the effects of behaviour on disease—what is now known as behavioural science or social epidemiology—including what people ate, drank, whether they were physically active and ‘industrious.’

Whilst all of these are principles readily recognised by the modern epidemiologist as related to independent and dependent variables, at the time, these ideas were considered remarkable, even dangerous; much like those of both Jenner and Sydenham. We need only look at the Twentieth Century to see similar examples, such as how the revelation that cigarette smoking was related to lung cancer. This brief review of the history of epidemiology demonstrates two important points as we celebrate both the accomplishments of *BEIJ* and our contributing authors, or that epidemiology is both needed, as well as often time *avant-garde* in the way it challenges our view of the world, and the means by which we treat and prevent disease. Characteristics

that are embodied by each of you, as you continue your hard work no matter where in the world you are located.

As such, and in closing, I want to again thank you, my global epidemiological colleagues for your hard work and dedication, as I welcome you to this latest issue of *Biostatistics and Epidemiology International Journal*, and the world class science with real-world impact that it represents.

Cheers,

*Dr Brian P. Mangum*

*Editor-in-Chief, BEIJ*

*Consultant Medical Epidemiologist*

*Professor of Medicine and Medical Epidemiology*