



Book review

A dictionary of epidemiology – The evolution towards the 6th edition

A Dictionary of Epidemiology, 6th Edition; Publisher: Oxford University Press; Editor: Miguel Porta

One of the key drivers in the advancement of scientific research is communication. It may seem to be taken for granted, but it is through communication that scientific information is shared. Whether it is through publication in peer-reviewed journals, presentations in scientific meetings, or lectures in the classroom, communication plays a vital part in how we obtain information to gain knowledge and perhaps form the basis to question existing paradigms. Needless to say, clarity and consistency are important attributes to good communication to ensure that scientific information is clearly understood and transmitted as accurately as possible. In medicine, medical dictionaries are a useful resource for the clinicians, health researchers and the general public to provide some useful descriptions and explanations of unfamiliar as well as common terms or phrases encountered in the clinics or read in the medical literature. Even scientific journals require the use of specific medical dictionaries to form the basis for the correct usage or spelling of words in the manuscripts submitted to them. But when the latest edition of a dictionary appears on bookshelves, one could not help but wonder whether the changes in the latest edition are substantive enough to warrant their purchase. Such a concern would certainly have arisen in many epidemiologists if they came across the 6th and latest edition of “A Dictionary of Epidemiology” [1]. It is, therefore, appropriate and timely to review this book to give the scientific community some ideas as to what to expect from this edition of the dictionary. Some notes about its ‘early origins’ should provide some context in which to understand the latest iteration of the dictionary.

As with any scientific endeavor, the need for clarity and consistency is very much recognised in epidemiology, which brings in knowledge and expertise across a wide range of disciplines, including, but not limited to, clinical medicine, public health, demography, microbiology, biochemistry, genetics, social science and economics. Although not unique to epidemiology, its nature of being interdisciplinary could lend itself to produce confusing nomenclature particularly for key concepts and principles. To address such a concern, Professor Anita K. Bahn of the University of Pennsylvania began to curate a glossary of terms to describe epidemiological concepts, principles and methods which might be useful for use for the global community of epidemiologists. Upon her untimely death, this initiative was carried on by Professor Jonathan Amsel of the University of Pennsylvania and Professor John M. Last of the University of Ottawa School of Medicine, under the auspices of the International Epidemiological Association (IEA). It was evident even at this stage that this initiative was likely to be collaborative and integrative, as reflected in the advert placed in the IEA's journal which announced, *‘The proposed plan of action is to circulate ideas and draft documents for reaction and comment Anyone who would like to*

participate in this reactive process is invited to communicate with John M Last’ [2]. This early work led to the publication of the first edition of ‘A Dictionary of Epidemiology’ in 1983, with Professor Last being the first editor. In the *Foreword* of the first edition by then IEA President Carol Buck described this extensive compilation of epidemiological terms to ‘unite epidemiologists around the world in furthering the more precise use of terms ... and in fostering a better understanding of our concepts by others.’ [3].

The 6th edition of the dictionary has been published in 2014 with Professor Miguel Porta of Universitat Autònoma de Barcelona serving as the editor. Like all previous editions, Oxford University Press remains the publisher, and IEA remains the main sponsor. The dictionary contains 343 pages in total which include six pages of bibliography and additional 37 pages of 800 references. In contrast, the first edition published in 1983, only had 114 pages which included two pages of bibliography. The nature of epidemiological tools for enquiry and conduct of research have expanded greatly to match advances within epidemiology as well as in other scientific disciplines. Thus, the publication of the latest edition is certainly a welcome update. In the first edition, entries for terms beginning with letters W, X, Y and Z were all printed on a single page. The entry for ‘Acquired immunity deficiency syndrome’ first appeared in the second edition (published in 1988). In the fifth edition (published in 2008 and edited for the first time by Miguel Porta), a page has been devoted to terminologies separately for letters W, X, Y and Z, and the term ‘Mendelian randomization’ appears for the first time. In the current 6th edition, we finally see an entry for the ‘Genome-wide association study’ (or GWAS). Although some of the key principles are unlikely to change, this expanded version of the 6th edition of the dictionary reflects the major developments and milestones in epidemiology.

The list of terms and their definitions is a testament to the contributions of a vast number of experts in the field – the expansion of the list and the accompanying detailed definitions or explanations reflect the depth of knowledge and experience within the epidemiological community. It is apparent that this dictionary has not been developed by lexicographers. Nor should it be. There is no etymology, phonetics, or suggested pronunciation of the listed terms. Indeed, linguistically inappropriate terms may have been adopted which, as an entry for ‘Epidemic, common source’ suggests, could be due to the epidemiologists having a ‘... lack of classical education [in Latin or Greek]’. There is also an apparent variation in the approach in defining some of the epidemiological terms, and there are some words that have been included, which, in my view, do not merit inclusion in the epidemiology lexicon.

Much has happened since the early 1980s. There has been an explosion not just of scientific knowledge but also of the ways in which knowledge and information are obtained. Largely driven by improvements in technology and development of the internet, information can be provided as well as can be had by almost anyone anywhere in the world with access to such technology, albeit the credibility and reliability of these information remain uncertain. Moreover, there is also a fundamental need to ensure that key concepts and principles in

epidemiology are understood clearly and communicated accurately, particularly with the further blurring of boundaries between scientific disciplines in recent years. A lot remains to be desired particularly in the quality of some of the entries included in this dictionary. Nevertheless, it could still help facilitate a pragmatic and practical understanding of terms and concepts as applied and used, at least in most instances, in current epidemiological practice. Confused at what an epidemiologist is talking about? This dictionary is certainly a resource to help you understand the *epidemiology speak*.

Transparency document

The [Transparency document](#) associated with this article can be found, in the online version.

References

- [1] M. Porta (Ed.), *A Dictionary of Epidemiology*. 6th ed. Oxford University Press, Oxford, 2014.
- [2] *Int. J. Epidemiol.* 9 (1980) 384.
- [3] J.M. Last (Ed.), *A Dictionary of Epidemiology*. 1st ed. Oxford University Press., Oxford, 1983.

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