HISTORY OF THE IEA

Origins and development of the International Epidemiological Association

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The aim of this paper is to present some reflections on the history and role of the International Epidemiological Association (IEA), on the future of the health field, and to suggest a specific new challenge to epidemiology. The organizational history of the IEA has been well covered in several publications.1–4

The IEA originated in response to several aspects of the medical and public health situation in the 1950s. Health leaders in the UK, US, and other industrialized nations were recognizing in their countries the ‘epidemiologic transition’ i.e. the trend towards dominance of non-communicable diseases on the health scene, displacing the communicable diseases that had been most prominent earlier. Responding to that recognition some epidemiologists had begun applying epidemiological methods to find the origins of the newly ascendant diseases, and they were achieving some success, notably in the cases of lung cancer and ischaemic heart disease that had risen to importance as causes of death during the first half of the 20th century.

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Doll and Hill and others had identified smoking as responsible for the remarkable increase in lung cancer during the 1930s and 1940s.5,6 Keys and colleagues had found excessive consumption of fat to be a highly significant factor in coronary artery disease, then the major element in heart disease; heart disease had become responsible for almost a third of all deaths in the US at the mid-century point.7,8

Also during the years after the Second World War several young medical and public health professionals, having been politicized by living through the rise and defeat of Fascism, were concerned that what could be done to preserve and restore health was not being fully applied, especially for people in the disadvantaged segments of society. Their activities, in which Socialist ideology was often influential, became known as ‘social medicine’. This term had been used for Andriya Stampar’s professorship at Zagreb University as early as 1931, and for a similar position for John Ryle at Oxford in 1942.9 Because so many social medicine advocates were academics, a major effort targeted medical education in an attempt to inculcate more physicians with their point of view. Further reflecting their sense of mission, they sought to influence public policy toward extending medical services and other health endeavours to the entire population. And they held a third notion, namely, that international contacts would be helpful, especially getting to know and understand what was happening in other countries.

Visits and correspondence among epidemiologists and social medicine enthusiasts led John Pemberton (Reader in social medicine Sheffield University, UK) and Harold Willard (Assistant Professor of Public Health, Cornell University, New York) to organize the International Corresponding Club (ICC) in 1955. They were advised by Professor Robert Cruickshank

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(Professor of Bacteriology at the London University) who later became the first chairman of the ICC and the IEA. The stated objective of the ICC was: ‘to facilitate communication between medical men and women engaged in teaching or research in preventive and social medicine throughout the world’. The first ICC Bulletin, which appeared in January 1955, included contributions from 26 correspondents in nine countries. The Executive Committee decided to organize an actual meeting of the Club, which the CIBA Foundation supported in London June 30–July 1, 1956. Twenty members and nine guests attended; most of them were British. One incidental outcome of that session was the organization of the Society for Social Medicine, which brought together British and Irish participants and has continued to the present day.9

A. Querido of Amsterdam, while attending the 1956 meeting, initiated a more international movement by inviting the group to a further meeting in The Netherlands. The session, which took place in September 1957 at Noordwijk, attracted 58 attendees from 20 countries. In addition to their scientific meeting, they selected a Chairman, Robert Cruikshank (UK), and eight other members of an executive committee; although that Noordwijk meeting featured a scientific programme, a ‘club’ and study group atmosphere with considerable socializing prevailed.

The second meeting of what was still called the ICC—hosted by the Dean, the Governing Board and the Professor of Epidemiology (Montoya) of the Cali, Columbia, School of Medicine—took place in Cali in 1959. I recall that the Dean, when asked the purpose of the medical school in Cali, responded ‘to improve the quality of medical care in this beautiful valley’. Probably not many medical school Deans today would make a similar statement, when the aim seems increasingly to be the advancement of biological knowledge rather than the broader social goal of people’s health.

Although social medicine ideals continued to be expressed at the Cali meeting, the organization’s focus was definitely tending more to what Chairman Cruikshank advocated, namely, in his words, ‘spreading the gospel of epidemiology’. Accordingly, the name was changed to the International Epidemiological Association (IEA). The ICC Bulletin was subsequently converted into the Journal of the International Epidemiological Association, which first appeared in 1972 with Walter Holland as editor.

**International affiliations and early financial support**

As an organization concerned with health and medicine the IEA in 1955 (then as the ICC) joined the Council for International Organizations of Medical Sciences (CIOMS) and has since occasionally served on its executive committee. The World Health Organization (WHO) in 1966 recognized the IEA as a non-governmental organization (NGO) with which to collaborate. This has led to participation in the World Health Assembly and highly fruitful relationships with the WHO in planning and conducting educational programmes and producing several publications.

Financial support during the early years came mainly from charitable foundations in the US and UK, from USA-PL480 funds for international scientific collaboration, and from host universities where the meetings were held. By 1971, however, the income of the Association began depending very largely on the subscriptions of its members. In more recent decades the WHO Regional Offices have enabled hundreds of epidemiologists to participate in IEA scientific meetings.

**Regionalization of the IEA**

By the time of the 1968 meeting in Primosten, Yugoslavia, it had become apparent that, while the world-wide assemblies of the IEA every three years were important, they entailed expense and logistic difficulties that made it impossible for many members to attend. The organization therefore adopted the policy of organizing regional meetings of epidemiologists in groups of neighbouring countries. The first of these, which were conducted between the world-wide triennial meetings of the Association that had become the pattern, took place in conjunction with a meeting of the IEA Council in 1970 at the University of Ibadan, Nigeria. It attracted participants from several African nations. Thereafter, regional educational activities flourished also in other areas of the world: Latin America and the Caribbean, Eastern Mediterranean, Europe, North America, South-east Asia, and the Western Pacific. Each regional body is represented on the IEA Council, which tends to strengthen the international network of epidemiologists and serves as a means of ‘spreading the gospel’ to the countries it covers. These regional bodies do so by recruiting members, conducting scientific sessions, and linking with national organizations of epidemiologists in their jurisdictions.

**Reflections on the role of the IEA**

Probably the major contribution of the IEA has been to foster the education of those engaged in, and particularly those just entering, the field of epidemiology. It has accomplished this task by encouraging visits, study groups, and collaboration among people in various countries throughout the world, organizing international and regional meetings of epidemiologists at which scientific principles and advances are presented, and sponsoring the publication of the *International Journal of Epidemiology*.

The journal, now in its 33rd year, has constituted a major IEA achievement. Its succession of outstanding editors has maintained a high standard of scientific journalism and thus stimulated excellent quality in epidemiological work. The emphasis on seeking authors from throughout the world has enriched the field.

Further, the IEA has advanced the recognition of epidemiology as the basic health science. Springing originally from the efforts of a few physicians and with many of its medical members still maintaining strong clinical connections, the IEA has expanded beyond what medicine can accomplish for health. The IEA now embraces within its sphere of interest environmental factors and the role of behaviour in health, as well as the social conditions pertinent to the roots of health. While we commonly speak of anatomy, physiology, biochemistry, immunology, and the like as the basic sciences of medicine, it is becoming increasingly clear that epidemiology is the basic science of health. The IEA has advanced this position by extending its membership to epidemiologists from many health-related disciplines beyond the medical and biological. It has thus delineated, from social, psychological, statistical as well as biomedical and other fields, a...
broad spectrum view concerning health to the WHO and other health-related bodies such as the CIOMS.

Another contribution of the IEA is the nurturing of an international perspective. Although one cannot claim a wide influence in this regard, the IEA has certainly been a model among scientific groups in seeking to overcome various obstacles to the concept of one mankind, and thus working towards the betterment of mankind as a whole.

Although the IEA and other agencies have sought to advance the scientific methodology of epidemiology, concentration on that aspect of the field has not been an unmitigated blessing. It has tended in recent decades to lure epidemiologists, especially those engaged in academia, away from the application of knowledge to improve health. In earlier times the leaders in this field participated enthusiastically in seeking to advance health with the knowledge that they were acquiring. Because they were mostly physicians, this activity took the form of advocating and leading social medicine. In more recent times, when a broader view of epidemiology has prevailed, the relevant effort consists of public health. Academicians in public health, bolstered by the current university paradigm of stressing discipline development, have often tended to isolate themselves from public health and focus their activities almost exclusively on methodological issues. Thus recently some public health professors, including epidemiologists, have not vigorously advanced the social implications of their work that earlier leaders in the field emphasized, for example, in the struggle against lung cancer.

Comments on the future of public health and epidemiology

One can link observations from the IEA’s early history, particularly its association with the epidemiological transition, with prospects for the future of public health. In the realm of health, governments tend to focus on immediate problems already affecting large numbers of their populations. Thus, in developing countries, they still tend to concentrate almost exclusively on communicable diseases, even though these countries are already entering the epidemiological transition and therefore should be considering how they can prevent or at least abate the on-coming epidemics of heart disease, cancer, and the other non-communicable diseases that have already affected the industrialized nations such as the US.

Epidemiologists in the developing countries can play a crucial role in such situations. Beyond assisting in devising and implementing the means of controlling their nations’ current communicable disease problems, they should alert the medical profession, the public, and political leaders as to what has been learned in the already industrialized world about the chronic disease epidemic. They should also ascertain and identify the particular circumstances and trends in their own countries that are creating disease burdens for the future. In other words they should be giving substantial attention (and some are) to the epidemiological transition. Epidemiologists in the developing countries who pursue this path may well become their nation’s health leaders in the future.

And what about the role of epidemiologists in the so-called developed countries? Some in the field are still best known for their contributions to the control of communicable diseases, and certainly large tasks still confront us in that arena. Less well-known to the general public are the substantial current declines in lung cancer, cardiovascular, and other non-communicable diseases in those countries that have applied what epidemiologists have learned about their causes. However, instead of concentrating only on a person’s disease status—for example, the extent of heart disease, stage of cancer, or even freedom from any obvious disease—attention should also be given to where the person is placed on the spectrum of health status (Table 1).

Progress is leading to substantial increases in longevity, especially extensions of life in the later years. Growing numbers of people are living into their 70s, 80s, and 90s, increasingly free of disease burden.

What is the health challenge pertaining to people with little or no disease? Some might say there is none, but this is a fallacious view. The challenge now is not just combating disease. It is attaining and maintaining optimum health. In the US, for example, currently >90% of people assert that their health is excellent or good, not fair or poor. The same is true of almost 70% of those >75 years of age. The situation is probably not much different in other highly industrialized and metropolitanized sections of the world (Figure 1).

Such people want something more in health than being freed of disease burdens. They want something ‘positive’, as has been increasingly recognized in recent decades.

The WHO in its 1948 statement of health as ‘physical, mental and social well-being’, gave early expression to this idea. The Ottawa Charter in 1986 defined health further, as ‘a resource for everyday life’. That concept—that health is a resource for everyday life—reflects the growing perception that people nowadays want health in order to live: to do the things important to them, for example, in leisure whether it be to engage in sports, play cards, attend the opera, etc. These particular activities entail physical stamina, memory, cognition, vision, hearing, and other capacities: health resources for living with respect to these particular desires.

In effect, we have progressed beyond what Terris described as the first and second epidemiological revolutions.11 The first was against communicable diseases, which while still incomplete, has made remarkable advance; and the second, against non-communicable diseases, where substantial progress is underway.

We have therefore entered into what may be called the third era of health in the modern world, when the focus will increasingly be on this new view of health, not just combating disease.

In this new era, the role of epidemiology is to understand not just the nature of a disease, but perhaps more importantly, the

| Spectrum of health status |
|---------------------------------|---------------------------------|
| Good health                     | Resources for everyday life     |
| Functional competence           | Physical and mental competence  |
| Capacity for living             | Good function, structural integrity |
| Impairment                      | Dysfunction and/or structural deficiency |
| Functional limitation           | Physical and/or mental restriction |
| Disability                      | Limitation in performance       |

social roles, personal desires

e.g. climbing stairs, reading

Bodily, mental, and social

e.g. climbing stairs, reading

social roles, personal desires
nature of health as a resource. Epidemiology can be the means to describe and measure this resource, to monitor its trends, and to ascertain the causes of those trends. The purpose, of course, is to support those trends that contribute to people's capacity for living.

This new way of thinking suggests that epidemiology must not only determine the causes of emphysema and deafness, but what constitutes adequate levels of respiratory function and hearing to enable health to be a true resource for living. We must delineate the full array of physical, mental, and social competencies that are significant for health in this sense.

Such a perspective means our thinking about measurement of health needs to go beyond the traditional concerns with mortality and morbidity statistics and longevity. In adopting the Ottawa Charter definition, we can envision a scheme which delineates health resources for living (Table 2).12

In the 50 years since a few academic physicians with a strong social persuasion began communicating about possible ways of improving the health of mankind, especially through epidemiology, there have been remarkable gains in our understanding of disease, and in how to control—even prevent—many forms of ill health.

Now we have progressed to thinking of health in a positive sense: as a resource for living. Implementing this concept is a huge task. But the health situation in much of Europe, North America, and several other parts of the world already calls for it. And epidemiologists have the tools take up this challenge.

Acknowledgement

Charles Florey, Secretary of the IEA, kindly provided minutes of the Association meetings and other materials.

Table 2 Examples of measurement of health

| Physical | 
| --- | --- |
| Anatomical | Height–weight ratio (BMI) |
| | Bone density |
| Physiological | Blood pressure |
| | Stress test |
| Immunological | Children |
| | Adult |
| Sensory | Vision |
| | Hearing |
| Chemical | Blood lipids |
| | Fasting blood glucose level |

| Mental | 
| --- | --- |
| Cognition | |
| Memory | |
| Mood | |

| Social | 
| --- | --- |
| Network of friends and relatives | |
| Attachments to institutions, organizations | |
KEY MESSAGES

● The International Epidemiological Association (IEA) emerged from the International Corresponding Club, a social medicine group, in the late 1950s and 1960s.

● It subsequently sponsored regional affiliates in several parts of the world as well as maintaining extensive international representation.

● The IEA has advanced epidemiology as the basic science of health.

● A future challenge lies in the recognition of the third era of health, as implied in the Ottawa Charter’s definition of health.

References


Commentary: On the article by Lester Breslow on the origins and development of the IEA

John Pemberton

Lester Breslow attended the first meeting of the International Corresponding Club (ICC), later named the International Epidemiological Association (IEA), which was held in Noordwijk, Netherlands, in September 1957 (Figure 1).

He has played a key role in the development of the Association ever since, becoming Chairman for the years 1964–68 (Figure 2).

In his paper in this issue of the IEA1 he gives a clear and accurate description of the origins of the Association and the ideas and activities on which it was based and he makes an important suggestion for a possible future role.

The international role of the IEA

He emphasizes the international role of the IEA as repeatedly expressed in the words of our first chairman, Robert Cruickshank, ‘We must spread the Gospel of Epidemiology’. He describes how this has been done by the organization of regional meetings in various countries and by affiliations with other international organizations such as the WHO. It has also been done to a remarkable extent by the development of our modest cyclostyled ‘Bulletin of the ICC’ started in 1955, into the influential International Journal of Epidemiology of today.

The journal has played a very important part in spreading the knowledge of epidemiology worldwide.