



Personal profile

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Sven Hernberg - profile in high-quality research and publishing

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Sven Hernberg – profile in high-quality research and publishing



The world has changed much since 1960 when Sven Hernberg first entered the Finnish Institute of Occupational Health as a 26-year-old physician and started his residency in the clinic of occupational medicine. From the very beginning, Sven was in scientific work, and by the time he became qualified as an occupational health physician he had already published 9 original research reports, one being an article on serum cholesterol and the capacity for physical work in the *Lancet* (1). Lead and solvents were, however, his main focus in research already during his resident years. Later on, lead became a priority topic in Sven's research, covering the aspects of lead metabolism, impact on heme synthesis, erythrocyte membrane injury, neurological changes in lead poisoning, and the development of methods for the biological monitoring of lead exposure with the help of erythrocyte delta-aminolevulinic acid dehydratase activity and the measurement of

blood lead concentration. He published altogether 64 research articles during his 20-year period of lead research. The impact of his research was clearly visible in the statistics on occupational diseases in Finland, showing first an increase as a consequence of the active detection of diseases and then as a gradually declining trend as a result of effective prevention (2).

Sven has always been able to look at the real priorities and relevance of his research. When one priority problem was solved, he moved to the next. Altogether he has published some 270 research articles or book chapters covering a high number of various types of exposure. In addition to lead, mercury, cobalt and carbon disulfide, his research has covered a wide range of other exposures, such as diphenyl, industrial solvents, formaldehyde, wood dusts, chlorophenoxy herbicides, chlorophenols, work with video display units, asbestos, silica, and foundry work. The health outcomes he has studied include lead poisoning, central and peripheral nervous system injury in carbon disulfide poisoning, cancer in the lung, liver, pancreas, kidney and paranasal sinuses, congenital malformations and other reproductive hazards, coronary heart mortality and morbidity, and back pain (3—8). He has used a full range of epidemiologic methods, developed tests and strategies for biological monitoring, initiated several preventive actions, and demonstrated their impact in long-term follow-up studies (2—4).

In 1974 Sven took the position of Scientific Director of the Finnish Institute of Occupational Health but did not accept being only in the role of research administrator. He also continued to work as the Director of the Department of Epidemiology and Biostatistics of the Institute. It was the most fortunate combination, being simultaneously a research manager of a large institute and an operative researcher in epidemiology. The results were obvious: the Institute was provided with a research policy program with distinct priorities, quality systems for research, a training program for young scientists, and a continuous search for new challenges for researchers. And, as already described, also his role as an active scientist was productive.

But this has not been enough for Sven. He also continued to educate young epidemiologists, wrote textbooks on epidemiology (9, 10), and authored numerous book chapters in others' textbooks, either

on epidemiology or on priority problems in occupational health, such as lead, solvents, occupational cancer or biological monitoring. He has tutored numerous PhD students, who now carry out epidemiologic research or practice in Finland or other areas of Scandinavia.

In addition to his scientific and managerial duties at the Institute and his tasks as Editor in Chief of the *Scandinavian Journal of Work, Environment & Health*, Sven also found time for international collaboration in the work of the World Health Organization and, particularly, the International Commission on Occupational Health (ICOH). He served for 6 years as the Chairman of the Scientific Committee on Epidemiology in Occupational Health and as a vice president of ICOH and another 6 years as its President, and has, since 1993, been a very active past president. Activities in this professional association, with over 2000 members from over 80 countries, provided him with excellent contacts with the most productive researchers in our field throughout the world.

The *Scandinavian Journal of Work Environment & Health* has been close to Sven's heart from the very foundation of the Journal 25 years ago. Since then, to the end of 1999, Sven served as its Editor in Chief. Collaboration with the Nordic co-editors has been excellent, and the dedication of the editors, referees, and the Editorial Board has been high during all of the Journal's 25 years. This certainly is not only due to the interest of researchers in the substance of occupational health, but also to Sven's personality and professional leadership, which has attracted others to join him in producing a high-quality journal on highly relevant topics with competent and experienced colleagues.

As in his research Sven, as the Editor in Chief, has followed the highest professional standard, careful and critical problem definition, rigorous methodological criteria, and a critical approach in making inference. In all these aspects Sven has been a good follower of Sir Austin Bradford Hill, whom he has often cited. "The reader can evaluate a study only if the researchers give sufficiently detailed descriptions of its design, materials and methods" (9). Over the years, Sven has also had a hobby that he found very interesting and rewarding in his editorial work – that of providing training courses in scientific writing for young, and often even senior, researchers. That hobby has been repaid very well by the quality of articles published by his students.

Now, when Sven retires as Editor in Chief, he hands the next generation a journal that is well received not only in Scandinavia, but also throughout the world, and it has an active, multidisciplinary, international readership and authorship as well. This is the result of Sven's excellent leadership, the close collaboration between the 5 Nordic countries, and the active contribution of the scientific community worldwide. Many of us share the view that, besides its obvious Nordic impact, the *Scandinavian Journal of Work Environment & Health* has demonstrated a distinct international added value. We in the Finnish Institute of Occupational Health have made efforts to distribute it as widely as possible also to experts in the developing world.

Sven himself has refused to publish for the sake of mere publishing, but he has always had important results to report to the scientific community. He has also followed this same principle in his editorial policy – only high-quality, relevant, and new results have passed his scrutiny. This is the most important principle in current times of vast numbers of scientific reports and the piles of irrelevant papers to which we are exposed today.

A rough estimate gives the total number of articles as over 1500 in the 25 volumes of the *Scandinavian Journal of Work, Environment & Health* thus far, plus about 30 supplements. Taking into consideration the 70% rejection rate for submitted papers, this number implies altogether about 5000 articles. Reading through them all, sending them to referees, and reading them again makes the work done before a decision on the suitability of publication a major task, in addition to all Sven's other duties. But he has never complained of the work load because editing the Journal has been a great joy for him.

When looking back at the decades of the *Scandinavian Journal of Work Environment & Health*, very logical tracks are visible: continuous quality improvement not only for scientific content but also for

coverage of substance – according to the changing problems of the workplace and the environment. The expansion of dissemination worldwide has taken place with parallel growth in the number of non-Scandinavian authors. The new design and layout of the Journal is an important part of the development. Thanks to Sven's never-tiring efforts, the Journal today represents elegance in outlook, strength in scientific content, and clarity in expression.

I believe we are many who want to thank Sven for his excellent contribution to the Journal, to the development of research within the Finnish Institute of Occupational Health, and to the international scientific and professional community in occupational health. We are happy to learn that Sven will not totally leave the Journal, but will continue to work as Editor Emeritus and follow the development of the Journal in the years to come. In principle he follows what we have agreed with Sven: "Legally we may one day retire but intellectually – never."

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