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A history of the *Scandinavian Journal of Work, Environment & Health*

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A history of the Scandinavian Journal of Work, Environment & Health

The Nordic countries have a long history of providing occupational health services, with legislation being passed as early as 1873 in Denmark and 1889 in Sweden and Finland (1). A Norwegian work inspectorate was founded in 1892, with modern industrial health services first appearing in a Norwegian chocolate factory during 1917 (2). The Work Environment Act of 1977 helped spur interest in occupational Danish health research, and this was followed by formation of the Danish Association of Occupational Medicine in 1984 (3). A Working Environment Act was also passed in Norway during 1977, and in 1992 it became mandatory for every Norwegian enterprise to establish a workplace health system, regardless of trade or size (4). A special Act on Occupational Health Services was passed in Finland during 1978, which obliged employers to organize these services for all employees (1). The Swedish Work Environment Agreement of 1983 was an extension of a 1976 agreement which contained rules governing the work environment, occupational health guidelines, and occupational training (5). Nordic countries now share many similar values in occupational health from an international context, and this has led to close cooperation in the provision of contemporary workplace health services, research activities, and the related scientific periodicals (6).

The modern-day *Scandinavian Journal of Work, Environment & Health* (*Scand J Work Environ Health*) was first published in January 1975, following the merger of two existing Nordic periodicals, the *Nordisk Hygienisk Tidskrift* (NHT) from Sweden and *Work-Environment-Health* (WEH) from Finland (7). Both titles had a fairly long history before this time. Origins of the NHT can be traced back to the early 20th century, when the journal was founded by the environmental hygiene section of the Swedish Society of Medicine (Svenska Laekarsaellskapetets Sektion for Omgivningshygien) in 1920 (8). Its inaugural Editor-in-Chief was the Swedish doctor Germund Wirgin (1868–1939), Chair of Hygiene and Bacteriology at the University of Uppsala (1914–1933) and a member of the Committee for Occupational Hygiene at the International Labor Organization (ILO) in Geneva during 1921 (9). The NHT's founding Editorial Board also included a Danish professor of hygiene at the University of Copenhagen, Louis Sigurd Fridericia (1881–1947) (10), who specialized in diseases of the heart and is probably best known for his repolarization correction formula for the QT interval in cardiology (11), and Theodor Thjøtta (1885–1955), a Norwegian physician and professor at the University of Oslo who specialized in bacteriology and serology (12).

The Finnish journal, WEH, was founded in 1962 and appointed Leo Noro (1915–1980) from the Finnish Institute of Occupational Health (FIOH) in Helsinki as its inaugural Editor-in-Chief (13). Noro was the Director of FIOH (1950–1970) and served as President of the International Commission on Occupational Health (ICOH) (1969–1975) (14). In 1968 Noro won the American Industrial Hygiene Association's Yant Award for his work with asbestos (15) and was in good company given that the award's namesake (William P Yant) had also served on the editorial boards of occupational health journals since at least 1936 (16). Noro eventually left FIOH to become director general of the National Board of Health, and would also serve as President of the Finnish Red Cross (1972–1979). Martti J Karvonen (1918–2009) succeeded Noro as FIOH Director until 1974. A renowned exercise physiologist and pioneer in cardiovascular disease epidemiology (17), Karvonen is best known for the 'Karvonen Equation', which has been used since 1957 to assess individually effective exercise training heart rate (18). After leaving FIOH, Karvonen became chief physician of the Finnish armed forces in 1974, until 1978 when he retired as a Major General (17). By the late 1960s, publication of WEH had become fairly sporadic, and therefore, in the early 1970s Karvonen decided to revive the periodical by appointing Sven Hernberg as Editor-in-Chief in 1972 (Personal Communication with Sven Hernberg, 28

April 2010). Hernberg was already a well-known figure in Nordic occupational health by this time, having published nine original research articles before even qualifying as an occupational medicine specialist (19). While working as Director of the Department of Epidemiology and Biostatistics in FIOH, Hernberg also occupied the position of Research Director (1974–1994) (19). He served ICOH in various positions including as Vice President (1981–1987) and President (1987–1993) (20).

WEH continued under Hernberg's leadership in the early 1970s, publishing quarterly issues until the end of 1974. By this time, the need for a more international perspective was being felt, eventually resulting in the amalgamation of the aforementioned WEH and NHT journals in 1975 to form a quarterly periodical, which has evolved into today's bimonthly *Scand J Work Environ Health*. Its first article was a 14-page literature review titled: Applications of neurophysiological methods in occupational medicine (21). Being a cooperative Nordic effort, the Swedish National Board of Occupational Safety and Health, the Finnish Occupational Health Foundation, the Swedish Medical Society (Section for Environmental Health), the Norwegian Work Research Institute, and the Workers' Protection Fund of Denmark jointly published the journal. Senior Editorial Board members on the inaugural issue included: Sven Hernberg as Editor-in-Chief, Assistant Editor-in-Chief Markku Nurminen, Technical Editor Georgianna Oja, and Co-Editors Axel Ahlmark, Børge Fallentin, Nils Lundgren and Tor Norseth. Hernberg would eventually serve as Editor-in-Chief for 24 years (22), one of the longest time periods in such a role and second only to Gerhard Lehnert, who edited the *International Archives of Occupational and Environmental Health* for almost three decades (23). Mikko Härmä of FIOH, who had been with the journal since 1994 as Assistant Editor-in-Chief, took over as Editor-in-Chief in 2000 (24).

Aside from its Editorial Board, tracing the journal's developmental history is also interesting as it continued to grow following its inception, expanding to a bimonthly periodical by 1983 and introducing a range of new article categories such as Opinions, News and Congress Reports by 1995 (25). The journal introduced a new co-editor system in 1998, which involved the appointment of several new Associate Editors from different countries and different scientific fields (24). By 1999, the quality of submitted manuscripts had increased to a point where the editorial board had to be more selective by publishing only the best contributions (22). The journal's international outreach was also expanding during this time. By 2000, for example, *Scand J Work Environ Health* was being distributed to 53 countries, and 80% of subscribers were from outside Scandinavia (24).

Research is not the only consideration in modern academic publishing however, and by the turn of the century, publication metrics had also become an increasingly important issue for editorial boards to consider (26). Various studies of occupational-health-related citation trends have now been undertaken, including in *Scand J Work Environ Health*. Given that research in this field is known to incur some distinct bibliometric characteristics (27), it is not surprising that the examination of citation patterns has also revealed some interesting findings. One study from the Journal for example, found that articles on the topic of psychosocial factors attracted almost one-third of all citations between 2006 and 2010 (28). Another study revealed that the citation distribution was highly skewed, with the top 10% of articles attracting 44% of all citations and the bottom 50% only 12% of the total (29). The most popular topics tend to be in the fields of occupational epidemiology, musculoskeletal disorders and psychosocial factors (30). Journal-level publication metrics also matter, and *Scand J Work Environ Health* has continued to rise in stature over the years, almost doubling its impact factor between 1985 and 2006 (31). The journal is now ranked in the top 12% of the Journal Citation Reports (Scientific Edition) in the category of Public, Environmental and Occupational Health, with an impact factor of 3.454 and a 5-year impact factor score of 4.060 (7).

For many years, FIOH, the Danish National Research Centre for the Working Environment, the Norwegian National Institute of Occupational Health, and the Swedish National Institute for Working Life jointly published the journal, until January 2013, when publication was transferred to the Nordic Association of Occupational Safety and Health (NOROSH) (32). This move has allowed the journal to progress towards

its ultimate goal of adopting a fully open access (OA) publishing model in future. *Scand J Work Environ Health* currently operates as a “hybrid” journal, with some content OA (around 50% in 2012) and the remainder embargoed for two years. Authors or their supporting network can purchase OA, an increasingly common trend, while some articles are also “unlocked” based on merit (33).

In 2016, Mikko Härmä continues to serve as Editor-in-Chief, along with Associate Editor-in-Chief Eira Viikari-Juntura (who has been on the Editorial Board since 1999), and Managing Editor Lisa O’Donoghue-Lindy (who joined in 2009). The journal remains unique among occupational health periodicals in that it retains publishing independence and is not owned or overseen by any commercial publisher (7). In its 42nd year, *Scand J Work Environ Health* continues to promote occupational health research and increase knowledge to benefit both the Nordic and international communities.

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References

1. Rantanen J. Occupational health services in the Nordic countries. In: Jeyaratnam J, Chia KS, editors. Occupational Health in National Development. Singapore: World Scientific Publishing; 1994. p. 425-43.
2. Larsen O. Origins of the Norwegian Occupational Health Services and its association of physicians. In: Grieco A, Fano D, Carter T, Iavicoli S, editors. Origins of Occupational Health Associations in the World. Amsterdam: Elsevier Science; 2003. p. 147-56.
3. Staun J, Wolff C. The development of health and safety at work in Denmark. In: Grieco A, Fano D, Carter T, Iavicoli S, editors. Origins of Occupational Health Associations in the World. Amsterdam: Elsevier Science; 2003. p. 23-7.
4. Øystein Saksvik P, Torvatn H, Nytrø K. Systematic occupational health and safety work in Norway: a decade of implementation. *Safety Science*. 2003; 41:721-38. [http://dx.doi.org/10.1016/S0925-7535\(02\)00020-6](http://dx.doi.org/10.1016/S0925-7535(02)00020-6)
5. Gerhardsson G. OHS in Sweden - the land of associations. In: Grieco A, Fano D, Carter T, Iavicoli S, editors. Origins of Occupational Health Associations in the World. Amsterdam: Elsevier Science; 2003. p. 217-35.
6. Smith DR. The historical development of academic journals in occupational medicine, 1901-2009. *Arch Environ Occup Health*. 2009; 64 (Suppl.):8-17. <http://dx.doi.org/10.1080/19338240903284672>
7. Scandinavian Journal of Work, Environment & Health. Facts about the journal. [18 Feb 2016]; Available from: <http://www.sjweh.fi/facts.php>.
8. PubMed Website, Journals: Nordisk Hygienisk Tidskrift. [18 Feb 2016]; Available from: <http://www.ncbi.nlm.nih.gov/nlmcatalog/7511514>.
9. Wikipedia: Germund Wirgin. [25 Feb 2016]; Available from: https://sv.wikipedia.org/wiki/Germund_Wirgin.
10. Kon SK. Professor Dr Med Louis Sigurd Fridericia. *Br J Nutr*. 1947; 1:111-2. <http://dx.doi.org/10.1079/BJN19470022>
11. Fridericia LS. Die Systolendauer im Elektrokardiogramm bei normalen Menschen und bei Herzkranken. [English translation.] *Acta Medica Scandinavica*. 1920; 53:469-86. <http://dx.doi.org/10.1111/j.0954-6820.1920.tb18266.x>
12. Borgen L, Hartmann G, Henriksen SD. TH Thjotta on the occasion of his 70th birthday June 17th, 1955. *Acta Pathologica Microbiologica Scandinavica*. 1955; 37:1-4. <http://dx.doi.org/10.1111/j.1699-0463.1955.tb00908.x>
13. Biografiakeskus Website. 100 Faces from Finland - A Biographical Kaleidoscope: Noro, Leo (1915-1980). [18 Feb 2016]; Available from: <http://www.kansallisbiografia.fi/kb/artikkeli/7350/>.
14. International Commission on Occupational Health (ICOH) website. ICOH Centennial Heritage: Presidents and Secretaries General from ICOH foundation. [18 Feb 2016]; Available from: http://www.icohweb.org/site/heritage/org_pres.asp.
15. Noro L. Occupational and “Non-occupational” Asbestosis in Finland. *American Industrial Hygiene Association journal*. 1968; 29:195-201. <http://dx.doi.org/10.1080/00028896809342989>
16. Smith DR. Historical development of the Archives of Environmental & Occupational Health and its predecessor journals, 1919-2009. *Arch Environ Occup Health*. 2009; 64 (Suppl.):18-31. <http://dx.doi.org/10.1080/19338240903284177>
17. Pincock S, Martti Karvonen. *Lancet*. 2009; 374:972. [http://dx.doi.org/10.1016/S0140-6736\(09\)61654-8](http://dx.doi.org/10.1016/S0140-6736(09)61654-8)
18. American College of Sports Medicine Website. In Memory: Martti J. Karvonen, M.D, Ph.D. [18 Feb 2016]; Available from: <http://www.multibriefs.com/briefs/acsm/karvonen.htm>.
19. Rantanen J. Sven Hernberg - profile in high-quality research and publishing. *Scand J Work Environ Health*. 2000; 26:1-3.
20. International Commission on Occupational Health (ICOH) website. Nineteen years in the service of ICOH. [19 Feb 2016]; Available from: http://www.icohweb.org/site/heritage/pdf/pres_hernberg.pdf.
21. Seppäläinen AM. Applications of neurophysiological methods in occupational medicine. A review. *Scand J Work Environ*

- Health. 1975; 1:1-14. <http://dx.doi.org/10.5271/sjweh.2865>
22. Hernberg S. Towards a new millennium. *Scand J Work Environ Health*. 1999; 25:465-9. <http://dx.doi.org/10.5271/sjweh.468>
23. Lehnert G, Drexler H, Schaller KH, Lange R. Editorials from the past and present Editors in Chief. *Int Arch Occup Environ Health*. 2003; 76:1-3.
24. Härmä M. Refining information into knowledge and understanding. *Scand J Work, Environ Health*. 2000; 26:5-6.
25. Hernberg S. Time for change. *Scand J Work Environ Health*. 1995; 21:1-2.
26. Smith DR. Identifying a set of 'core' journals in occupational health, part 2: lists derived by bibliometric techniques. *Arch Environ Occup Health*. 2010; 65:173-5. <http://dx.doi.org/10.1080/19338241003730952>
27. Smith DR. Highly cited articles in environmental and occupational health, 1919-1960. *Arch Environ Occup Health*. 2009; 64 (Suppl.):32-42. <http://dx.doi.org/10.1080/19338240903286743>
28. O'Donoghue-Lindy L, Burdorf A, Viikari-Juntura E. What attracts citations? A look back at *Scand J Work, Environ Health* papers over the past five years. *Scand J Work Environ Health*. 2010; 36:515-8. <http://dx.doi.org/10.5271/sjweh.3127>
29. Burdorf A, Viikari-Juntura E. Bibliometric analysis of the Scandinavian Journal of Work, Environment & Health - results from the past 10 years. *Scand J Work Environ Health*. 2007; 33:318-9.
30. Härmä M, Viikari-Juntura E, O'Donoghue-Lindy L. Scandinavian Journal of Work, Environment & Health: 40 years of innovative research with societal impact in the field of occupational health. *Scand J Work Environ Health*. 2015; 41:421-4. <http://dx.doi.org/10.5271/sjweh.3516>
31. Smith DR. Citation analysis and impact factor trends of 5 core journals in occupational medicine, 1985-2006. *Arch Environ Occup Health*. 2008; 63:114-22. <http://dx.doi.org/10.3200/AEOH.63.3.114-122>
32. Nordic Association of Occupational Safety and Health (NOROSH) Website. About us. [19 Feb 2016]; Available from: <http://www.norosh.org/>.
33. O'Donoghue-Lindy L. New year, new publisher - Nordic occupational health association takes over reins of Scandinavian Journal of Work Environment & Health. *Scand J Work Environ Health*. 2013; 39:1-4. <http://dx.doi.org/10.5271/sjweh.3340>

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