

# THE NORDIC COUNCIL FOR ARCTIC MEDICAL RESEARCH

## history, aims and achievements

### ABSTRACT

Bent Harvald<sup>1</sup>  
and Inge Lyng<sup>2</sup>

The Organization of Nordic Council for Arctic Medical Research (NCAMR, or NoSAMF in Scandinavian languages) was initiated by the governmental Nordic Council in 1966. The new council was charged with the task of promoting arctic medical research in the Nordic countries. It began its duties in 1969. Originally the council covered Denmark, Finland, Norway and Sweden; Iceland joined as a member in 1977. During the first years the NCAMR held two to three conferences a year, the proceedings of which were communicated in the Nordic Council for Arctic Medical Research Reports series, distributed in about 1500 copies, free of charge. In 1971, 1981, 1987 and 1993, the NCAMR hosted the *International Congress on Circumpolar Health* and played a pivotal role in the establishment of the International Union for Circumpolar Health (IUCH) in 1986. Thereafter, the activities of the NCAMR developed a much more international character. Accident prevention, cold research, pollution, family health and, in later years, the health of indigenous peoples, became priorities, along with the establishment of international research networks. The NCAMR's report series soon developed into an established international journal under the title Arctic Medical Research. The inter-governmental financial support to the NCAMR was discontinued at the end of 1996. Thereafter, the secretariat operated under the auspices of the University of Oulu. The International Journal for Circumpolar Health, as it was named from 1997, continued to flourish, being published by the IUCH, the Nordic Society for Circumpolar Health and the University of Oulu.

<sup>1</sup> Professor emeritus, Odense University

<sup>2</sup> Former chief psychiatrist in Greenland

**Key words:** Arctic medical history, Nordic collaboration, IUCH, International Journal of Circumpolar Health

## INTRODUCTION

In 1957, the Nordic Council, which had been the advisory organ for collaboration between governments and parliaments of the Nordic countries since 1952, appointed a committee for arctic medical research. The then Director-General of the National Board of Health in Finland, Professor Niilo Pesonen, was among the most influential promoters of this initiative. After several years of discussion, the Nordic Council for Arctic Medical Research (NCAMR, or NoSAMF in Scandinavian language) was finally agreed upon in 1966, with a secretariat working on a regular budget, but with no direct funds for research.

The Council was to comprise from one to three members from each country, to be nominated by the governments concerned and appointed by the Ministerial Council of the Nordic Countries for not more than four years at a time. The members have, as a rule, been university Professors and scientists, or leading County Medical Officers of the Northern provinces with experience in medical problems occurring in sparsely populated northern areas. Responsibility for the coordination of the activities of the NCAMR fell to the Secretariat for Nordic Cultural Cooperation in Copenhagen, which has been under the jurisdiction of the Ministerial Council of the Nordic Countries since 1971, and through which the costs have been defrayed by the member states. Iceland joined as a member state in 1977.

The governments of Denmark, Finland, Norway and Sweden ratified the by-laws of the NCAMR in 1968; the Secretariat has been located in Oulu, Finland, since that time.

The object of the NCAMR was to promote arctic medical research in the Nordic countries. Specifically, the following aims were listed:

- a. To constitute a centre for contacts,
- b. To compile research documentation and make it known and accessible to research workers, both in the Nordic countries and in the world at large,
- c. To organize seminars, symposia, conferences and courses,
- d. To foster publication activity in the Nordic countries, and
- e. To coordinate joint Nordic measures to promote research in arctic medicine.

Finally, by 1969, the NCAMR was ready for take-off.

## 1969 - 1976

The first activities of the NCAMR were the compilation of a catalogue of current research projects in the Nordic countries, and the preparation of *The 2<sup>nd</sup> International Symposium on Circumpolar Health* to take place in Oulu, from 21 – 24 June 1971.

The catalogue of research projects (1) covered around 100 projects, described in some detail and with English summaries. It was edited by the anthropologist Thord Lewin, who served as General Secretary for the NCAMR in 1970. The catalogue served as a state-of-the-art presentation for *The 2<sup>nd</sup> International Symposium on Circumpolar Health*: From where did we come? Where are we now? Where are we going?

A first *Symposium on Circumpolar Health Related Problems* had been held in Fairbanks, Alaska, from 23 – 28 July 1967 (2). C. Earl Albrecht, Alaskan Commissioner of Health from 1945 to 1956, conceived the idea when he realized that the unique health problems of the Arctic crossed national boundaries and might be susceptible to joint solutions. He presented his idea to the board of governors of the Arctic Institute of North America, who agreed to sponsor the meeting and this first symposium was considered an outstanding success. For the location of the next symposium, in 1971, the board suggested Finland, since more Russian participants could be expected to travel there than to any other country. Thus, the torch was handed to Oulu, in reality an event of far-reaching importance to arctic medicine in the Nordic countries.

For nearly two years, the activities of the NCAMR focused on *The 2<sup>nd</sup> International Symposium on Circumpolar Health*. The organizing committee was composed of members of the NCAMR and of the Arctic Institute of North America. Professor Ole Wasz-Höckert was elected president of the Symposium. He was Professor of Paediatrics at the University of Oulu and was the first chairman of the NCAMR. He had served with honour in the two Finnish-Russian wars in connection with World War II, after which he served as a member of the Finnish Parliament, representing the Swedish minority group. In this capacity, he had a broad national contact net, in addition to political relationships with Russia.

Professor Henrik Forsius was chairman of the scientific committee of the symposium. He also had contacts with the Russians, developed in the course of his ophthalmological research on northern

native tribes. Jorma Hirvonen, Professor of Forensic Medicine at the University of Oulu, served as the General Secretary of the NCAMR and, at the same time, as the General Secretary of the symposium. The proceedings of the symposium (which comprised only part of the scientific contributions, because papers already published in other journals were omitted), were edited by Forsius and Hirvonen, who presented a very fine summary of the symposium in their introduction (3).

The organisation of *The 2<sup>nd</sup> International Symposium on Circumpolar Health* involved an extraordinary effort by those members of the NCAMR involved and, in the year following the symposium, the NCAMR met only once (in Copenhagen), when they agreed upon the principles for future activity. Two types of conferences were outlined: 1) conferences in university cities, where major arctic medical problems could be presented to a panel of specialists, and 2) conferences in smaller centres in the arctic regions, inviting local health personnel to present contributions about local medical problems and eventual local research. The NCAMR, meanwhile, presented current scientific problems and progress estimated to be of importance in the given environment. It was the hope during the resulting debates to arouse interest and activity, not only among medical doctors, but also amongst other health workers, administrators and politicians.

The first of the latter type of meetings was organised during September 1972, in Nuuk/Godthåb, Greenland. The list of topics discussed included epidemiology, statistics, public health priorities, psychiatry and the registration of chronic disorders. The work of this meeting was detailed in Report number two (Rep. 2) of the NCAMR's report-series. Report number one (Rep. 1) was a presentation of the NCAMR and arctic medical research. These two reports were written in Danish and Swedish, respectively. The decision to continue the report series in English, proved to be the first decisive change on the report series' path to becoming an international journal.

Having 'found its feet', the NCAMR arranged conferences on the following subjects over the next few years: lactose malabsorption (Helsinki 1972, Rep. 3), coronary heart disease in the Arctic (Oulu 1973, Rep. 7), light and darkness, biological rhythms and living conditions in the Arctic (Kiruna 1974, Rep. 10), respiratory tract infections in children (Oslo 1974, Rep. 12), growth of children in northern regions (Oulu 1975, Rep. 14), the epidemiology of diabetes

mellitus, especially in sparsely populated northern areas (Odense 1975, Rep. 15), and health problems in connection with the off-shore oil industry in the Arctic (Stavanger 1975). In addition, information meetings were held for representatives of the health services in northern Norway and northern Finland (Berlevåg and Kirkenes 1973). Subsequently, the NCAMR organised a symposium on medical aspects of the modern fishing industry and medical problems related to cold exposure (Thorshavn, Færøerne 1976, Rep. 18) and then, in August 1976, paid a visit to Svalbard, in order to study the working conditions of the workers in the coal mines.

*The 3<sup>rd</sup> International Symposium on Circumpolar Health* was organised in 1974 by the Canadians in Yellowknife, North West Territories (4).

It was generally felt that the NCAMR had made a good start. In the autumn of 1975, this impression, however, was modified by an evaluation of the NCAMR's activities undertaken by an ad-hoc committee set up by the nordic medical research councils. This ad-hoc committee was very critical, both with regard to the organisation and as to the function of the NCAMR. The ad-hoc committee recommended that the focus of the NCAMR should be changed from research to the development of the health services in general and that its name should change from 'Council for Arctic Medical Research' to 'Council for Arctic Medicine'. They also recommended that the budget should be reduced to cover just a limited secretarial function. The proposals implied an almost complete cessation of the NCAMR's activity up till that time, and constituted an obstacle to the continued publication and distribution of the report series with its circulation of 1,500 copies.

This criticism by the evaluation committee gave rise to a detailed defence, formulated by the then chairman, Håkan Linderholm, Professor of Clinical Physiology in Umeå, assisted by the general secretary, Professor Hans Åkerblom. Their report must have carried some weight, because the final result of the evaluation was that the position of General Secretary was changed from half-time to full-time, and that research activities were expected. Iceland was invited to become a member of the NCAMR, and the budget was increased from around a quarter of a million Danish Crowns to nearly half a million.

## 1977 - 1986

The whole evaluation event, which in a way had threatened the NCAMR's existence, had been very time-consuming and gave rise to a lot of insecurity. On the other hand, it had also offered an important opportunity for self-scrutiny and revision.

When we consider the total activity of the NCAMR during this decade, the following areas of work were the most prevalent: epidemiology and genetics. The following conferences were organized: coronary heart disease particularly with regard to the northern parts of the Nordic countries (Stockholm 1977, Rep. 19), epidemiological projects in northern Finland (Ivalo, Finland 1977, Rep. 20), alcohol problems in northern regions (Alta, Norway 1977, Rep. 21), medical problems in sparsely populated areas (Umeå 1978, Rep. 22), genetic diseases in sparsely populated areas of the Nordic countries (Mariehamn, Ålandsøerne 1978, Rep. 24), epidemiological problems in genetics (Reykjavik 1979, Rep. 26), psychiatric epidemiology and suicidology among children and adults in the far North (Oulu 1980, Rep. 27), cold exposure in medical research and clinical practice (Oulu 1981, Rep. 30), and dental health and nutrition in the sparsely populated Nordic areas (Umeå 1981, Rep. 31).

Among more special publications in the Report Series from these years mention should be made of the report of the cardio-vascular study in Finnmark 1974-75 (Rep. 25), and the Greenland Medical Bibliography (4) elaborated by Søren Andersen, a former medical officer in the Ammassalik district, Greenland.

In 1978, *The 4<sup>th</sup> International Symposium on Circumpolar Health* was arranged in Novosibirsk, USSR. In this context, the Finnish-Russian relationships proved of great usefulness, and especially the role of Professor Ole Wasz-Höckert as a contact who, during the preparations for the symposium, paid several visits, primarily to Moscow.

*The 5<sup>th</sup> International Symposium on Circumpolar Health* was organized by the NCAMR in Copenhagen in 1981 (6). Bent Harvald was elected President, with chief pathologist Jens Peder Hart Hansen as General Secretary. Just over 300 participants attended the symposium; the occasion exposed the practical difficulties, and especially the financial obstacles, in organizing a conference of that size without a financially responsible organization. This was the direct motivation for the formation of a collaborative structure and resulted in the formation of the International Union for Circumpolar Health

(IUCH). Not surprisingly, this solution was not entirely simple, because of the different research structures in the countries involved.

The symposium in Copenhagen was, in different ways, supported by the WHO, Copenhagen. Thus, during the symposium, the WHO arranged a meeting concerning health care in the Arctic. Tight bonds between the WHO and the NCAMR were formed at this time, resulting in the nomination of the NCAMR as a WHO collaborating centre in June 1982.

In the years following the symposium, the activities of the NCAMR were gradually intensified. Of practical importance was the establishment of an arctic search profile, AMRIS, by Juhani Leppäluoto, Professor of Physiology in Oulu, aided by the documentalist Esa Soini. Together, they edited an Arctic Medical Bibliography (7) and were later on the editorial board of a Bibliography on Arctic Medical Research in the USSR (8). These publications served in the construction of a Nordic information network concerning arctic medicine.

Among the NCAMR reports from these years, we must mention the thesis by Niels Højgaard Nielsen, entitled "Cancer Incidence in Greenland" (9), the proceedings of a symposium on women's diseases in sparsely populated northern areas (Umeå, Sweden, 1982, Rep. 36), and those of a working group on problems of family health in circumpolar regions (Ilulissat/Jakobshavn, Greenland, 1985, Rep. 40). This working group, initiated by the WHO and arranged and convened by the NCAMR, introduced the concept of family health to Greenland. The resulting WHO/the NCAMR report drew attention to the processes of acculturation as a key to the interpretation of a new pattern of serious health problems among circumpolar peoples; this was subsequently elaborated upon in a working paper by the Canadian psychologist John Berry (10). Another working paper, by Inge Lynge, documented the dramatic increase in suicide rates among young Greenlandic males (11). Subsequent to the work of this seminal working group, it was decided to designate 'family health' as a NCAMR priority in the 1990s.

In 1984, the NCAMR arranged a course in arctic medicine in collaboration with the Nordic Federation for Medical Education, given in the Hälsovårds Högskolan in Gothenburg. In that same year, *The 6<sup>th</sup> International Symposium on Circumpolar Health* was held in Anchorage, Alaska (12).

During these years, the report series gradually changed. The Sami witch drum, which had decorated the series' cover ever since the start

of the series in 1972, disappeared and, after some experimentation, was replaced by a blue Mercator's projection of the world. The name was changed to 'Arctic Medical Research' and a regular quarterly publication was planned. The new journal became indexed in Index Medicus and several databases, such as Medline.

### 1987 -1996

The growing global interest for strategic and resource reasons in the arctic and subarctic areas had to be recognised during this period. The arctic aspects were stressed in all branches of science and it was felt of importance to develop multidisciplinary contacts with universities and other scientific institutions.

In three ways, 1987 became a turning point for the NCAMR:

- 1) *The 7<sup>th</sup> International Congress on Circumpolar Health* was organized by the NCAMR in Umeå,
- 2) The first general assembly of the IUCH took place during the congress, and
- 3) The second evaluation of the the NCAMR activities by the Nordic Council of Ministers was accomplished.

*The 7<sup>th</sup> International Circumpolar Health Congress on Circumpolar Health* (from now on, the international meetings were named 'congresses' instead of 'symposia') had Håkan Linderholm as President, and the physiologist Christer Backman as General Secretary. The congress attracted more than 500 participants and around 300 papers were presented. The proceedings followed the lines of the 5<sup>th</sup> symposium held in Copenhagen and were produced as a supplement to Arctic Medical Research (13). As a post-congressional activity the NCAMR, in collaboration with the Sami Medical Association, organized a meeting in Karasjoki, Finnmark Fylke, Norway, focusing on the health care of Sami people.

The foundation of the IUCH and an agreement on its by-laws had already been planned, at the 1981 symposium in Copenhagen, to take place at the next symposium in Anchorage, in 1984; primarily because of the Soviet Union, the difficulties were greater than expected. However, at a constituting meeting in Stockholm, in 1986, a proposal formulated by the NCAMR and based on a central structure with four adhering bodies, was accepted by all parties. Bent Harvald was elected interim President until the congress in Umeå 1987, where Jens Peder Hart Hansen was elected the first President proper of the

IUCH. Thus, the NCAMR had a strong impact on the formation of the IUCH.

As an early example of the international activities, we should mention the 1984 ICEDIVE conference on diving under arctic conditions, held in Stockholm. It was organized in collaboration between the NCAMR, the Comité Arctique International, the Society for Underwater Technology (London, England), and the University of Alaska. The conference resulted in the book entitled "Arctic Underwater Operations" (14). In August 1988, the NCAMR collaborated with an international thermo-regulation group in the organisation of a meeting on the treatment of hypothermia, held in Odense, Denmark (15).

The second evaluation of the the NCAMR activities resulted in a general acknowledgement of the work done so far, with only few and cautious critical remarks. It was recommended that the NCAMR try to concentrate on a few main themes, compose a plan of action for the next 3-5 years, and seek a closer contact with the national research councils concerning their policy for research priorities. Consequent to the recommendations of this second evaluation, the NCAMR convened a consultation with representatives of the Nordic medical research councils, the Nordic medical faculties and other relevant research and educational institutions, in Svalbard, in August 1989. This resulted in the decision that accident prevention, cold research, pollution and family health should be given high priority. As a follow-up of the Svalbard meeting, the NCAMR invited Nordic medical research councils, medical faculties and representatives of the national ministries to a meeting in Stockholm, in October 1994. After the discussions at this meeting the NCAMR decided to adhere to the four above-mentioned priorities (accident prevention, cold research, pollution and family health), but add the health of indigenous peoples and the establishment of international research networks that would focus on such areas as cancer research, family health research etc.

The reason accident prevention was chosen as the first priority should be seen in the context of the enormous mortality from accidents in arctic areas. Indeed, in Greenland, accidents caused three times more '*potential years of life lost*' than cancer (16). A follow-up of the Svalbard intentions was the organization, together with the IUCH, of an *International Conference on Accidents and their Preven-*

*tion in Circumpolar Regions*, held in Rovaniemi, Finland, in February 1992. The recommendations of this conference stressed the strategies for preventive measures, primarily through the modification of risk-taking behaviour (17). At the conference, a working group, which included participation from The Nordic Medico Statistical Committee (NOMESCO) and the NCAMR, was established to create a special 'arctic' classification of external causes of injuries. A preliminary version was presented at *The 9<sup>th</sup> International Congress on Circumpolar Health* held in Reykjavik, Iceland, in 1994, and the final arctic version was published as an appendix of the third revised edition of NOMESCO's classification of external causes of injuries (18). The Proceedings of the Nordic Conference on Snowmobiles, held in March 1994, in Rovaniemi, Finland, were also published in *Arctic Medical Research* that year (19).

The priority of cold research defined in the Svalbard convention was followed-up by a *Nordic Conference on Cold*, held in Tromsø, Norway, in 1991, in collaboration with the Department of Medical Physiology (University of Tromsø), the National Institute of Occupational Health (Solna, Sweden) and the Oulu Regional Institute of Occupational Health (Oulu, Finland) (20). In 1993, Arctic Medical Research published a monograph by Hannu Anttonen of Oulu, entitled "Occupational Needs and Evaluation Methods for Cold Protective Clothing", which included a comprehensive reference list on the subject (21). The the NCAMR priority topic of cold research was also addressed by convening an *International Conference on Effects of Cold on the Human Organism*, organized in collaboration with the IUCH, the new Nordic Society for Circumpolar Health and the Oulu Regional Institute for Occupational Health, in February 1995. The meeting was arranged under the auspices of the new Kastelli Research Institute of the University of Oulu (22).

In October 1992, the NCAMR co-organized, with a number of Finnish institutions, a *Symposium on the State of the Environment and Environmental Monitoring in Northern Fenno-Scandia and the Kola Peninsula* (23). The health working groups of the Barents Euro-Arctic Region, in collaboration with the NCAMR, then convened a conference on Human Health and Pollutants in the Arctic Environment, focusing on the chemical (including radio-chemical) pollution and its influence on the health of arctic peoples, in Tromsø, Norway, in September 1995 (24).

As part of an initiative on family health, the Proceedings of the 6<sup>th</sup> Congress on Circumpolar Child and Adolescent Psychiatry, organized in August 1991, in Kajaani, Finland, were published in Arctic Medical Research (25). In April 1994, the NCAMR organized a *Symposium on Family Health in Circumpolar Regions* in Ilulissat, Greenland. The symposium attracted more than 50 participants from Greenland, the Nordic countries, Canada and USA. Both Inuit and Saami people were well-represented. The symposium focused on the pivotal role of the family as being fundamental for growth and well-being. The proceedings were published in Arctic Medical Research (26). This symposium was followed by a workshop in Hornbæk, Denmark, in November 1996, with the aim of a more thorough investigation of concepts and methodologies in dealing with this complex area of research. A main result was the acknowledgement that health seen in the whole context of the family involves a significant change in perspective, with a new paradigm for the understanding of health. It followed that the training of health professionals from such a perspective is of great importance (27).

Several other NCAMR enterprises concerned the health of indigenous peoples. Arctic Medical Research dedicated two 1990 issues to the publication of the proceedings of an IUCH/WHO *Circumpolar Conference on Tobacco and Health*, in Yellowknife, N.W.T., Canada, in April 1989 (28), and an IUCH/WHO *Circumpolar Meeting on AIDS prevention*, in Ilulissat, Greenland, in 1989 (29). Although the NCAMR had no direct function at these meetings, the publication in Arctic Medical Research underlined the contact with WHO. In September 1990, the NCAMR was confirmed as a WHO collaborating center for arctic medical research and circumpolar health.

In 1991, Arctic Medical Research published the thesis by Peter Bjerregaard, entitled "Disease Pattern in Greenland: studies on morbidity in Upernavik 1979-80 and mortality in Greenland" (30). This work pioneered Greenlandic epidemiology by demonstrating the applicability of the notion 'potential years of life lost'.

In 1993, Arctic Medical Research published a bibliography entitled "The Health of the Inuit of North America" (31), which represented an extension of the book "The Health of the Eskimos: A Bibliography 1857-1967", compiled in 1993 by Robert Fortuine and colleagues.

In May 1990, the NCAMR was one of the co-organizers of *The 8<sup>th</sup> International Congress on Circumpolar Health* held in Whitehorse,

Yukon, Canada. More than 700 scientists from more than 20 countries attended this congress (32).

In November 1991, the Nordic Society for Arctic Medicine was founded at an inaugural meeting at the Karolinska Hospital, in Stockholm, Sweden. At that time, it was expected that the governmental grants to the NCAMR would run out in a not too distant future, which, in reality, would spell the end of the NCAMR. The Nordic society was then expected to become a future adhering body of the IUCH. Professor Per-Ola Granberg, Sweden, was elected the first chairman of the new non-governmental society.

In 1993, the NCAMR was the regional organizer of *The 9<sup>th</sup> International Congress on Circumpolar Health, in Reykjavik, Iceland*. Professor Johann Axelson was President, with the physiologist Gudrun Petursdottir as General Secretary. The congress attracted a little more than 300 participants. One main topic was the transfer of responsibility for health and health service to indigenous peoples. The proceedings were published by Arctic Medical Research (33).

*The 10<sup>th</sup> International Congress on Circumpolar Health* took place in Anchorage, Alaska in May 1996, and this was to be the last international congress in which the NCAMR took part as an adhering body of the IUCH. About 500 papers and posters were presented, covering a broad range of topics and professions, again confirming the congresses as an important forum for debate and for the development of health research and health care under difficult circumstances in the arctic communities. The proceedings were published by The American Society for Circumpolar Health (34).

The consultations at the Svalbard convention had revealed that the concept of 'circumpolar health' as a special medical research field was far from being generally accepted. Much remained to be done in order to make the NCAMR and its facilities familiar to the research community. The journal would therefore try to improve its informative value by adopting a more structured policy, with emphasis on editorials and short review articles concerning research problems and activities. The October 1988 issue marked the addition of the IUCH as a co-publisher of Arctic Medical Research. Regional editors were appointed in order to enhance and shorten the editorial process. Indeed, Arctic Medical Research was already on the way to developing into an international journal.

This description of the scientific achievements of the NCAMR would not be complete without mentioning the research work of the

various general secretaries, who only had to meet the very loose requirement that their research should be of relevance to arctic medicine. Their wide-ranging contributions concerned anthropology, forensic medicine, pathology, cold physiology and, for a long period, diabetology. A favourable circumstance for the activity of the the NCAMR secretariat that should be mentioned is that the same office staff, comprised of Raili Mäkinen and Kirsti Kallio, continuously served the the NCAMR secretariat during almost the whole time of its existence.

As anticipated for some time, The Nordic Council of Ministers decided to discontinue funding for the NCAMR at the end of 1996. The decision was clearly political and did not imply that the NCAMR had disappointed. It was now necessary to negotiate alternatives to enable its functions to be maintained and, particularly, to ensure the continued publication of Arctic Medical Research. Thanks to the foresight of University of Oulu and the understanding of the Finnish Ministry of Education, the University decided to maintain the secretarial functions from 1997 onwards and to continue the publication of the journal, which, from April 1997, changed its name to International Journal of Circumpolar Health, reflecting the name of the congresses. The 'obituary' of the NCAMR, written by its latest Chairman Hans Åkerblom, was published in the last issue under the old name: Arctic Medical Research (35).

The NCAMR's activities covered 27 years. In a scientific context, this is a rather long period, with ongoing developments in circumstances and knowledge, which must be recognised in any attempts at a final evaluation of its role. When the NCAMR entered the arctic science scene, research was rather sparse and random; communication between researchers and practitioners in the sparsely populated areas was inevitably limited, often with resultant misunderstandings. Against this background, the NCAMR's workshops and other meetings provided the opportunity for a far broader group of professionals to gain a better mutual understanding. The list of conferences and publications illustrate the close engagement of the council members. Furthermore, the activities led to benefits in two directions: results from circumpolar health research have become of importance, not only for the circumpolar peoples, but also for the scientific community in general. By the time that the NCAMR came to the end of its life, after 27 years, research in circumpolar health had evolved from

a multitude of relatively isolated research centres, to collaborations at national, international, and even global levels. The NCAMR had played a pivotal role in this development in two respects: the organization of the IUCH and the foundation of the International Journal of Circumpolar Health. It is a comfort to know that these two strongholds still remain on the scene well after the NCAMR ceased to exist as an active body. After all: the NCAMR made a difference.

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## BOARD MEMBERS

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Inge Lyngé,  
73, Sprydet,  
DK-3070 Snekkersten, Denmark  
e-mail: [ingelynge@dadlnet.dk](mailto:ingelynge@dadlnet.dk)