Symposium held on the occasion of the meeting of the Nordic Society of Dentistry for Children and the 80th Annual Meeting of the Scandinavian Association for Dental Research, 20–23 August 1997, Reykjavík, Iceland

Is caries prevention effective and cost-effective?

With the decline in dental caries prevalence in recent years in most Western countries, it is only right for dental academics and clinicians to reconsider policies and methods for caries prevention. Preventive strategies have probably been most highly developed, and most expensive, in the Nordic countries. The prevalence of caries in these countries some 30 years ago was among the highest in the world. Drastic measures were called for if dental health was to reach the same high levels that had been achieved for general health in the Nordic countries following the implementation of various forms of socialized medicine.

In the past decade or so budgets for health and social services in the Nordic countries have been put under severe strain by the conflicting desire of governments to reduce public spending. Funding for programs of preventive dentistry is at least as much under threat as that for other public health programs. The dental profession therefore bears a considerable responsibility to ensure, through properly conducted research, that worthwhile preventive measures are retained and that those measures that are no longer effective or sufficiently cost-effective for the changed circumstances are phased out.

The opportunity arose in late summer 1997 for clinical and academic dentists to discuss this problem at a symposium bearing the title 'Is caries prevention effective and cost-effective?'. The occasion for the symposium was the meeting of the Nordic Society of Dentistry for Children (Nordisk Förening för Pedodonti, NFP) and the 80th Annual Meeting of the Scandinavian Association for Dental Research (Nordisk Odontologisk Forening, NOF). These two meetings were held consecutively from 20 to 23 August 1997 in Reykjavík, Iceland. In addition to speakers from the Nordic countries, Dr. Brian Burt of the University of Michigan and Dr. Eli Schwarz, a Dane who was then the Dean of the Hong Kong Dental School, also presented papers. Dr. Ole Fejerskov of the Danish Research Academy and the University of Århus served most ably as chairman. The following papers were presented at the symposium:

- Dr. Göran Koch (Jönköping): The success of caries prevention in the Nordic countries
- Dr. Nina J. Wang (Oslo): Caries-preventive strategies in Denmark, Iceland, Norway and Sweden
- Dr. Harald M. Eriksen (Oslo): Has caries merely been postponed?
- Dr. Sibilla Bjarnason (Göteborg): High caries levels: problems still to be tackled
- Dr. Brian A. Burt (Ann Arbor, Mich., USA): Prevention policies in the light of changed disease distribution
- Dr. Eli Schwarz (Hong Kong): Is prevention cost-effective—does anybody care?

With the opening paper Professor Koch, the President of NFP, gave a summary of the poor state of dental health in the Nordic countries in former times and outlined the scale of the problem that persisted in Iceland until about a decade ago. Caries progressed rapidly, and dentists were often fully occupied with reparative work. Turning the emphasis of dental care toward caries prevention was the key to bringing the problem under control, which operative treatment per se could never do. Understanding the etiologic factors of caries and attempting to control them while carrying out necessary operative procedures brought about the caries reduction that we have all witnessed. At the end of his talk Professor Koch emphasized the remarkable contribution of fluoride dentifrices and supplements in the caries control program.

The outstanding success of prevention policies was described, and although approaches to prevention have been, and continue to be, different among the Nordic countries, the net result has been the same: a marked and apparently sustainable decline in caries prevalence. Problems remain, however, among about 25% of children and no doubt other age groups. Moreover, neighboring countries of the former Eastern bloc show levels of caries similar to those in Scandinavia 30 years ago and in Iceland much more recently.

The speakers were largely in agreement that population-based strategies were still necessary although some 'targeting' was desirable, especially for expensive measures of caries prevention such as fissure sealing and perhaps fluoride varnishes. How best to select target groups and predict caries were identified as problems for continuing research.

The relative cost of preventing caries is increasing as the prevalence declines. This expenditure is, however, worthwhile because factors known to produce caries, such as high consumption of sucrose, between-meal snacking, and the presence of *Streptococcus mutans* in dental plaque, are still present, and the gains in dental health so expensively won

in the Nordic countries could easily be lost. This does not mean that policy should not be altered at all in the light of the successes achieved. Explaining the need for continuing caries prevention to health care administrators and politicians remains one of the important tasks for the dental professions both in the Nordic countries and further afield in the near future.

Five of the presentations given at the symposium follow this introduction. I should like to take the opportunity to thank all of the speakers for their contributions to this successful symposium and Professor Fejerskov for his skillful chairmanship. The financial support of the Patents Revenue Fund in enabling publication of these papers is gratefully acknowledged.

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