The appropriate use of different oral health promotion/preventive interventions and materials, as well as treatment options in public policy is crucial for the improvement of the oral health of individuals and populations. Whether one is a private practitioner doing treatment planning or a public health dentist assessing the needs of a community, the approach is the same.

In order to assess which preventive and promotion intervention to use, it is utterly important to evaluate the needs and current oral health status of the individual or population first, as well to conduct an assessment of the community. The oral health assessment would include the incidence of caries, periodontal disease, and oral cancer. The assessment of the community would include elements such as whether there is a community water system, whether the community is fluoridated and at what level, and the availability of dental and other health professionals.

Canada recently completed an oral health survey that established the current oral health status of Canadians and, in addition to describing the needs of the population, it established a baseline to which the effectiveness of any intervention can be compared. This assessment, along with an in-depth understanding of the dental public health community and the particularities of a community, lays the necessary groundwork for determining the intervention approach to take.

In addition to understanding the needs of an individual or a population, it is also important to compare the reach, effectiveness and costs of an intervention in order to determine which intervention will have the greatest impact. For example, a community with a high incidence of caries and a viable central water supply may benefit from introducing water fluoridation. At a cost per person of $0.77 to $4 and a potential 20 to 40 per cent reduction in caries, water fluoridation is a cost-effective initiative for the appropriate community. A community without a viable central water infrastructure might benefit from a fluoride-varnish programme, which has a cost per person of $24 to $55 and a potential 23 to 87 per cent reduction in caries.

Another potential intervention could be a sealant programme, which has a cost per person of $2 to $36 and a potential 70 to 87 per cent reduction in caries; however, this programme relies heavily on the availability and participation of dental professionals. All of the above-listed interventions have been proven to be successful in individuals and in communities and can improve the oral health of a population; however, one intervention (or a combination of a few interventions) may be more suitable after an assessment of the situation.

In terms of treatment options, an understanding of the individual or community is also vital when making clinical decisions involving different dental materials. For example, when deciding between composite or amalgam fillings for treatment of caries, establishing the ease of access to a dental professional and the size of the cavity are key. Amalgam is inexpensive, durable, and relatively fast and easy to place. Composites may cost more, may not be as strong or durable in locations where they are subject to forces produced by chewing, and are often more difficult to place. In some remote communities with limited access to a dental professional, amalgam fillings may be the material of choice.

In summary, it is essential when making an intervention or treatment decision to evaluate and consider the results of a thorough needs assessment, the pros, cons and effectiveness of the proposed intervention, as well as the associated costs. This detailed planning from the outset will translate into health improvements in a population.

The German Dental Officer of Canada. This morning, he will present a paper on dental materials together with Dr Gottfried Schmalz from Germany in half of the HICCE.

Global oral health in the context of preventive/treatment interventions and materials

By Dr Peter Cooney, Canada

“...it is utterly important to first evaluate the needs and current oral health status of the individual or population first…”

One out of five implant patients are likely to develop peri-implantitis

T his afternoon, the German implantology expert Dr Frank Schwarz will be presenting a lecture on the successful treatment of peri-implantitis. Worldental Daily had to opportunity to speak with him about the condition and the latest treatment approaches.

1 Peri-implantitis seems to remain a huge clinical problem. What challenge does the condition pose to the dental community? Owing to the increasing number of dental implants placed, post-implant complications will gain relevance in the future. How many patients are estimated to be affected?

According to the current consensus statement by the European Association for Osseointegration, one out of five implant patients are likely to develop peri-implantitis. Similar estimates concerning mucositis are lacking. Experts say that the number of implant treatments will increase above average in the next few years, particularly in Asia. What consequences will this have on the dental community in the region regarding peri-implantitis?

Besides the need for more research activities in this important field, measures have to be implemented to assure quality, as well as educational standards for dentists who want to offer implant treatment. We must also consider the importance of etiologic factors, which can promote peri-implant infections.

1 A number of treatment methods for peri-implantitis are available. Considering the latest research findings, which of these are likely to have the most successful clinical outcome? In general, surgical procedures seem to have an advantage over non-surgical treatment approaches.

1 Is there one effective method of treatment or is it a combination of different methods that ensures long-term success? For a successful therapeutic outcome, various factors have to be taken into account. The configuration and morphology of peri-implant bone defects, which have been considered to be of lesser importance, seem to play a very important role actually.

1 New implants and implant surfaces promise even better osseointegration. Will this have an effect on the development and treatment of peri-implantitis? New implant modifications have to be studied and assessed with regard to these aspects.

1 What are the most promising treatment approaches, in your opinion? I will give a comprehensive review of them in my FDI lecture on Thursday.

1 Thank you very much.