Future Annual Meetings of the European Section International College of Dentists

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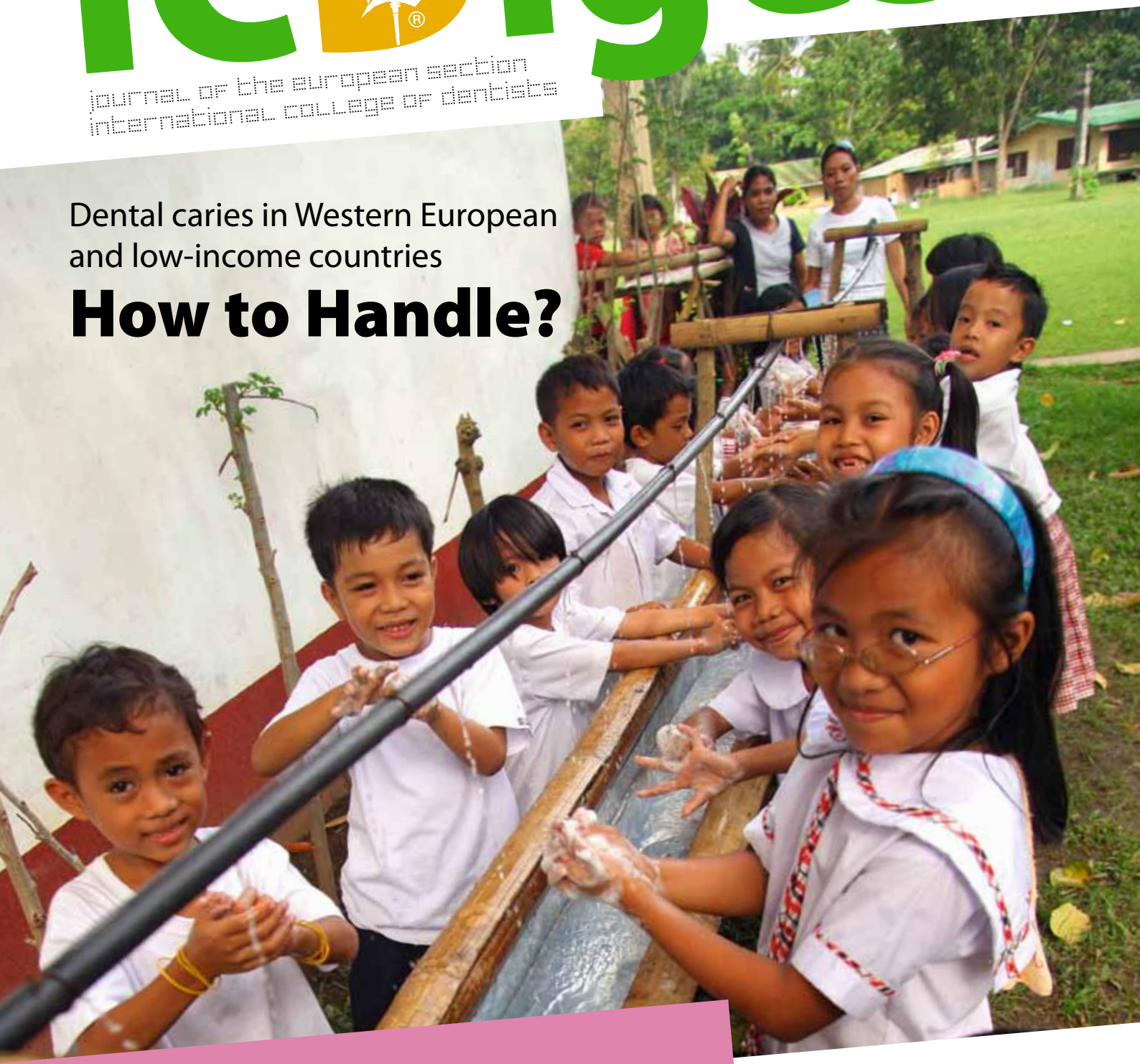
ICDigest

journal of the european section
international college of dentists

Dental caries in Western European and low-income countries

How to Handle?



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Growth and Development Signs of Stability and Relevance?

Frans Kroon

News, Events and 2012 Reports

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Recognising Service as well as the Opportunity to Serve.

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- To provide a universal forum for the cultivation of cordial relations within the profession.
- To foster the growth and diffusion of dental knowledge.
- To recognise distinguished service to the profession and to the public worldwide.
- To promote post-graduate study and research in the field of oral health.
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- To encourage and support projects of a humanitarian nature.
- To uphold the highest standard of professional competence and personal ethics.
- To assist in preserving the highest public perception of the profession.
- To perpetuate the history of the profession and maintain its dignity and stature.

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Constancy amid Change

The publication of our annual ICDigest is a significant moment, blending past, present and future. As your new editor, I am privileged to stand on the shoulders of my able predecessor, S. Dov Sydney, whose professional insights and personal warmth have added so much to our journal, and who in turn carried forward the legacy of an equally visionary and empathic lady, Cecil Linehan. I have known them both long and well, and they have been a great inspiration to me. Also, I do not bear my responsibility alone, but am guided by the wisdom of an outstanding editorial board in the persons of Frans Kroon and Phillip Dowel. My gratitude goes to all of them as I, with pride and great pleasure, present to you our 2013 edition.

How quickly the present is changing! Many of you, while firmly on course to achieving personal and professional objectives and providing needed service in your practice and humanitarian projects, may marvel at how swiftly former certainties are no longer taken for granted. Complex financial and political issues plough deeply through our European landscape which, while hope of new economic fertility continues, will require years of concerted effort and sacrifice by the sweat of our brow.

Against this background, the European Section keenly senses the need to keep pace with these transformations. This will be reflected in our journal. Building on our standard of excellence, we will increase our focus on humanitarian projects and scientific content from conference topics. Also, our project funding process continues to innovate. The Projects and Funding Committee (formerly Flexible Learning Advisory Group – FLAG) currently manages resources from the Philip Dear Fund, but commercial sponsorship is vital to its long-term sustainability. (Read more in Phillip Dowell's and Kenneth Eaton's compelling article 'Developing an Evidence-based Approach to ICD Projects' in this edition.) These are just two examples of no doubt many to unfold in the years ahead.

But there is constancy amid change. Our annual congresses at inspiring venues, with excursions to historic locations adding social and cultural flavour to our scientific exchange, emphasise how we as ICD European Section are no strangers but family, bound together in a desire and determination to promote our noble profession for the benefit of all mankind. Indeed, giving back in small measure to the world of what we have been privileged to receive.

Building on our standard of excellence, we will increase our focus on humanitarian projects and scientific content from conference topics

Walter van Driel, Editor

The 57th Annual European Section Meeting

Munich June 2012

As usual the Annual Meeting of the European Section closes the presidential year. It combines the Section's Board of Regents Meeting with a Scientific Meeting and a diversity of reports about Fellows' activities in Humanitarian Projects and finds it apotheosis of honour in the Induction of New Fellows.

Frans Kroon

The Munich meeting was the final activity of President Wolfgang Bockelbrink, perfectly supported by his lovely wife Minu. It was the result of a well-guided year in office and brought together a major part of the European Fellows to meet both for scientific presentations and social gatherings, and to continue work and exchange results of committee affairs of the Section.

The Regents dinner on the Wednesday at the Hofbräuhaus was a perfect start for the officers to meet and a prelude to the Board Meeting on Thursday. The extensive agenda was well prepared by our Registrar Argirios Pissiotis as a guarantee for a productive session of the Board. Reports and details about committees and projects can be found on the ICD website and elsewhere in this ICDigest issue.

Thursday evening is traditionally the gathering of all attending Fellows, nominated Inductees and Spouses. BMW-architectural supremacy, industrial and commercial hospitality were the background for this evening at leisure. Entertained by devoted guides, led through this certainly highly impressive building and treated to a 'walking dinner' in the Museum Hall 'embedded' with car models from the past and even surprised by a presentation about the future, participants still found their way to make new friends and to renew old friendships.

On Friday our Section President Wolfgang Bockelbrink and the Vice-Regent for Germany Matthias Bimler hosted a most interesting scientific programme covering prevention, caries detection and treatment, endodontic guidelines in front teeth trauma, trauma-related restoration by implant procedures, erosion and treatment possibilities; all lectures presented by Fellows and Inductees.

Dr. Bockelbrink, referring to the work of Dr. Per Axelsson, gave the opening lecture, showing us how he had gradually managed to change his daily private patient-oriented practice into "a mainly prevention-only based treatment schedule"; a most interesting concept, but certainly very ▶

much depending on patients' basic (and financial) understanding of the needs of 'their own contribution in Dental Health Care'. The treatment protocol is published in full on the website.

The afternoon was devoted to the Open Forum: discussion and presentation of some of the projects of the Section, well introduced by an interesting lecture about 'preventive and restorative strategies for the Third World'.

All project reports and a selection of the scientific presentations are presented in this ICDigest issue. Abstracts and further details are also available on the website.

The Friday evening gathering was held in a most friendly ambiance of one of the famous beergardens of Munich; the music in the separate corner reserved for our group was only overruled at certain moments by the enthusiastic reactions of a huge crowd 'attending' the football match between Greece and Germany; that outcome has not had any negative influence on the harmony in our Section.

On Saturday the Induction Ceremony was held; the usual special attention was given to the Inductees by presenting them all individually through a personal introduction by the Regent of their District. The new Inductees were addressed also by the President of the College at Large, Dr. Gary Lunn. The Induction Ceremony was closed by the official installation of new officers, especially of the incoming European President Dr. Henrik Harmsen, Denmark.

The Section's Meeting found a superb closure with the Gala Dinner at the Castle of Nymphenburg preceded by a generous welcome reception in the beautiful garden in front of the Castle.

The European Section can be very proud of the result of the work by President Bockelbrink and his team. The Section was very pleased by the representative presence of the President of the College at Large, Dr. Gary Lunn supported by his lovely wife Ruth and their daughter Morgan, who attended all events.

The optional – well organised and interesting – post-conference Castle Tour to Linderhof, at Neuschwanstein was attended by a small, but enthusiastic group. It was yet another opportunity to experience the personal attention and fine hospitality shown by Wolfgang and Minu Bockelbrink.

New technologies and materials in the restoration of worn dentition

Erosion and More

Erosion-induced loss of tooth structure in young patients represents an international ever-increasing problem and is often associated with complex rehabilitations. These rehabilitations constitute a particular challenge for the restorative team, since the vertical dimension of occlusion (VDO) needs to be reconstructed or redefined, and a minimum-invasive approach is of primary interest for the longevity of the abutment teeth.

Daniel Edelhoff

Abstract

The use of temporary acrylic or composite materials allows us to evaluate the treatment objective over a certain period of time and therefore generates a high predictability of the final rehabilitation in terms of aesthetics and function. CAD/CAM technology enables the use of prefabricated polymer materials, which are manufactured under industrial conditions to form a highly homogeneous structure compared to those of direct fabrication. This increases long-term stability, biocompatibility and resistance to wear. Furthermore, they offer more suitable CAD/CAM processing characteristics and can be used in thinner thicknesses compared to ceramic restorative materials. Also, based on the improved long-term stability, the transfer into the final restoration can be divided into multiple treatment steps.

Introduction

The use of temporary restorations represents an essential stage in the course of indirect restorative and interdisciplinary treatment strategies. They are normally used to protect the prepared tooth structure and pulp and to stabilise the teeth. In addition, they play an indispensable role in preserving or re-establishing the masticatory function, phonetics and aesthetic appearance. According to the fabrication technique temporary restorations are basically divided into direct, indirect-direct (known as egg shell or veneering technique) and indirect restorations. The recommended wearing time of the individual temporary restorations varies and depends on the differences in material properties achieved by the various fabrication techniques. Generally, a wearing time between 1 and 3 months is recommended for temporary restorations fabricated with the direct technique, up to 6 months for the veneering technique, and up to 2 years for the indirect technique.

Various polymer systems are suitable for the fabrication of direct temporary restorations: Powder-liquid systems based on monomethacrylate (MMA) and polymethyl methacrylate (PMMA), paste-paste systems based on difunctional or multifunctional methacrylate (e.g. Bis-GMA, TEGDMA, UDMA) and preformed light-curing composite restorations (e.g. Protemp Crown, 3M Espe, Seefeld). Due to unfavourable conditions under which they are polymerised and fabricated, direct temporary restorations are prone to inhomogeneities, pores and cracks, which may lead to premature discolouration, bacterial ingress and a significant decrease in long-term stability and biocompatibility.

Hence, for a prolonged period of clinical application, indirect temporary restorations are usually fabricated in the dental laboratory. In particular, when used as long-span fixed dental prosthesis (FDP), they need to comprise a metal alloy or glass fibre-reinforced framework to increase their load capability.

Currently many manufacturers offer high-density polymers based on highly cross-linked PMMA acrylic resins or composites for CAD/CAM manufacturing methods. Since they are manufactured in an industrial process, temporary restorations made of high-density polymer exhibit qualities that are superior to those of direct restorations. This offers numerous new treatment options like an extended preliminary treatment phase.

An extended preliminary treatment phase is one of many new options offered by high-density polymers

Using these modifiable temporary restorations over an extended period of time, the patient and restorative team can evaluate the restorative "blueprint" clinically with regard to its aesthetics, masticatory function and phonetics. In situations where a new VDO must be defined using occlusal splints, it is a challenge to transfer the new VDO into a long-term temporisation using a method as non-invasive as possible. Moreover, prolonged preliminary treatment phases are indispensable if extensive modifications of shape, shade and position in the aesthetic anterior region are implemented, because essential factors such as lip position and dynamics cannot be assessed sufficiently in the dental laboratory to determine the smile line. Further on, the provisional restoration plays an essential role in the communication between the patient, dentist and dental technician during the treatment.

Minimally Invasive and Non-Invasive Occlusal Onlays

In the future, the number of patients with severe loss of tooth structure will increase. One reason for this increase is the demographic change with older people making up an increasing proportion of the population. Due to heightened health awareness and improved dental care, elderly persons will maintain a healthy natural dentition for longer. This means that natural teeth are exposed longer to masticatory stresses, which leads to an increase in the functional wear of the natural dentition. The occurring physiological wear from frictional contact between opposing teeth is called attrition. This continuous loss of tooth structure may be accelerated by extrinsic factors such as parafunctional stresses (e.g. malocclusion or bruxism) and chemical processes (e.g. acids). Aggravating processes like these may prematurely lead to substantial aesthetic and functional problems.

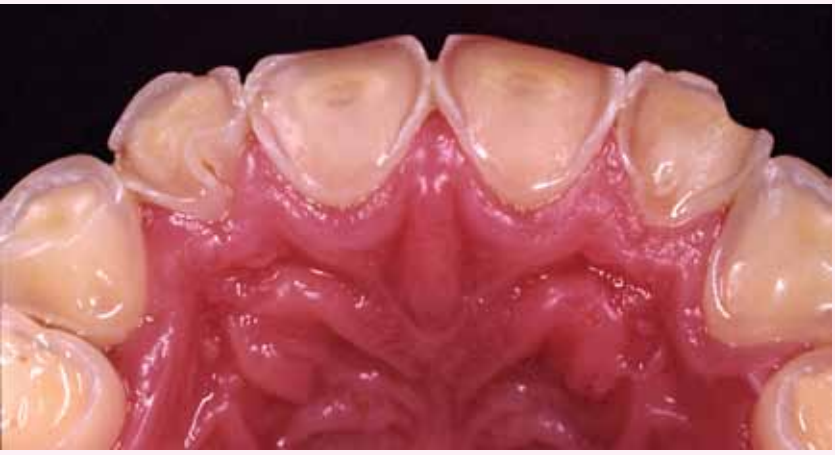
Exogenic factors such as an increased consumption of acidic beverages and foods and endogenic factors such as bulimia and gastro-oesophageal reflux represent key factors causing erosion-induced loss of tooth structure in young patients. Increasing numbers of young people, including children, are affected by this problem. If the attrition progresses to the underlying dentin, the wear processes might dramatically accelerate and cause a substantial loss of the VDO. In the longer term, these changes will have adverse effects in terms of phonetics, masticatory function, aesthetic appearance and neuromuscular system of the patient. After the causative factors of the wear have been redressed, restorative treatments should be initiated as soon as possible. Timely intervention is also advisable to ensure that appropriate portions of enamel remain available for reliable adhesive cementation. The reconstruction of the VDO often creates sufficient space to place thin-walled restorations. As high-density polymer restorations can be fabricated in a thickness as thin as 0.3 mm, their material properties seem to be favourable for these minimal-invasive or non-invasive restorations like temporary veneers and onlays. These restorations can be manufactured considerably thinner than the natural enamel layer, which usually has a thickness of more than 1 mm. They can be placed using an adhesive luting technique. Consequently, these measures help to save substantial amounts of tooth structure.

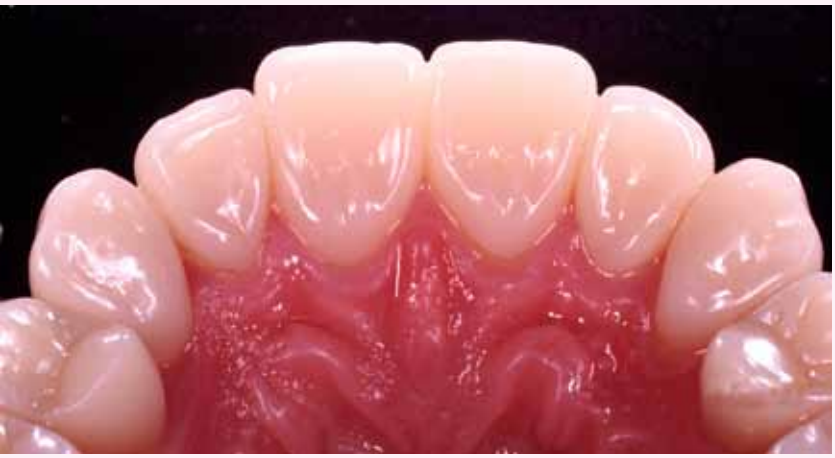
Discussion

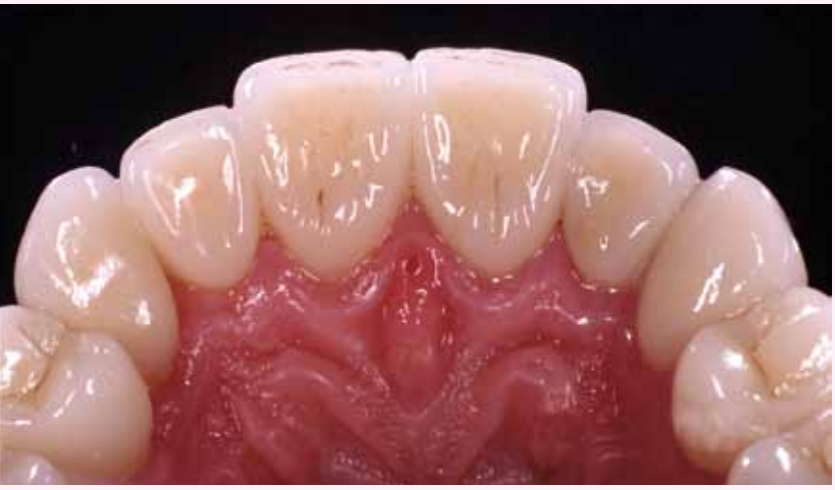
The specialised literature discusses various strategies for the treatment of generalised tooth defects caused by a combination of abrasive and erosive processes. These approaches are mainly based on direct resin composites, which are fabricated using a purely additive design and therefore often allow a completely non-invasive treatment method. Although this conservative approach offers some advantages, it involves direct treatment procedures that are highly time-consuming for patient and dentist alike. The approach presented here promotes an indirect treatment strategy based on a close collaboration with the dental technician. Since essential steps are delegated to the dental lab, the chair time for the patient can be reduced significantly. In addition, the use of industrially prefabricated components in a CAD/CAM-based indirect manufacturing technique results in restorations that exhibit superior material qualities. The standardised conditions used in industrial fabrication processes allow us to eliminate these shortcomings by using high-pressure polymerisation. Over several years the authors have gathered favourable experiences with CAD/CAM-fabricated high-density PMMA- or composite-based polymers for the above described treatment strategy. In *in-vitro* studies, CAD/CAM-fabricated ultra-thin composite onlays de-

Occlusal conditions and material thickness may be used as essential criteria

monstrated an increased survival rate and higher fatigue resistance when compared to some made of ceramics.







However, insufficient clinical data are available to prove the long-term reliability of this new type of restorations. In a clinical study with traditionally fabricated composite full crowns the authors saw some restrictions for the use as a permanent restoration, due to a complication rate of more than 10% and increased plaque accumulation. After 5 years of clinical service a probability of survival of 88.5% was reported. In a clinical trial comparing CAD/CAM-manufactured composite resin crowns with CAD/CAM-manufactured ceramic single crowns after 3 years, significantly higher cumulative survival and success rates were found for the group of the ceramic restorations. Aesthetics and wear resistance of the composite resin crowns were inferior compared to those manufactured with ceramic. However, in a 3-year clinical trial of CAD/CAM-generated adhesive inlays fabricated either from composite or ceramic, no significant differences relative to margin adaptation could be found between both groups. For PMMA-based high-density polymer materials used for temporary ultra-thin onlays and veneers, no scientific clinical data are available yet. Up to the first positive results of clinical mid-term trials, this new restorative approach has to be considered as experimental.

Summary

With the introduction of CAD/CAM-manufactured high-density polymer materials, high-quality temporary restorations are becoming available. These temporaries help to gather valuable information for the fabrication of the final restorations. They therefore represent a key component in a complex treatment strategy. The possibility of modifying and fine-tuning the restorations helps the dental team to achieve an optimal final restoration with active involvement of the patient. Occlusal conditions and material thickness may be used as essential criteria for selecting the materials for the final restoration. Combined with the possibility of implementing the final restoration in different stages, this treatment alternative improves the predictability and reliability of complex rehabilitations.

Prof. Dr. Daniel Edelhoff, Ludwig-Maximilians University, Munich, Germany

Photo's: Daniel Edelhoff
References available on the ICD European Section website: http://www.icd-europe.com/

Caries detection and diagnostics

What´s New?

Epidemiological studies revealed a general drop in caries prevalence in children and young adults combined with a concentration of the caries burden in pits and fissures of permanent molars. During adolescence and young adulthood, proximal caries becomes more frequent but a declining caries incidence and a slower disease progression were observed in adult populations.

Jan Kühnisch

With respect to the potential of caries preventive measures, e.g. tooth-friendly nutrition, optimal oral hygiene, fluoride application, pit and fissure sealing and caries infiltration, caries detection and diagnostics is the key issue to determine appropriate dental care in children and adults. There is agreement among experts that up-to-date diagnostic methods should

- be non-invasive,
- show a high sensitivity and a high specificity (validity),
- have high intra- and inter-examiner reproducibility,
- detect caries lesions at an early stage,
- provide clear cut-offs for preventive and operative intervention,
- be universally applicable on all tooth surfaces,
- be practicable and
- be available at reasonable cost.

Caries Susceptibility of Pits and Fissures

The frequent appearance of hidden carious lesions in occlusal pits and fissures was mainly recognised by dental practitioners at the beginning of the 1980s. Clinically, the carious process was observed under a seemingly sound layer of enamel, which may hide a dentinal lesion of considerable size and activity. Contrary to this clinical appearance, it is not uncommon for bitewing radiographs (BR) to show radiolucencies approaching the dental pulp on clinically intact occlusal surfaces. Therefore, routine clinical examinations may lead to a significant underestimations of occlusal carious lesions. Concerning the high susceptibility of pits and fissures to caries, the following possible aetiological factors have been identified: a highly plaque-retaining fissure morphology, the presence of microorganisms and a reduced enamel thickness at the fissure fundus. An own study investigated the presence of possible irregularities below the enamel-dentin junction (EDJ) in dentin with the aim to detect irregularities (Figure 1) below the EDJ on occlusal surfaces using micro-computed tomography (µCT). The main finding of our study was that demarcated dentin radiolucencies below the EDJ were detectable in 3.4% (n=7) of all µCT datasets and were not classified as dentin carious lesions (Figures 1 and 2). These irregularities lacked any clinical detectable dental anomalies as well as any visual detectable signs of carious processes in most of these cases, and the location of these irregularities in the dentin was below the EDJ. Thus, these defects may have been due to developmental disorders and/or mineralisation disturbances below the EDJ during early tooth development.

The presence of such irregularities could explain the early onset and rapid progression of carious lesions on occlusal surfaces. Thus, as a consequence of a direct communication between the oral cavity and the outer dentin layer (Figure 2), an infection of the dentin may be inevitable immediately after tooth eruption. Hence, the initiation of caries starts below the EDJ and without a preceding enamel demineralisation process. This aspect of our findings may explain the sometimes rapid progression of hidden carious lesions on pits and fissures.

Visual Caries Diagnostics

Due to the unsatisfying diagnostic accuracy of the dental explorer and the fact that it may bring on iatrogenic damage, the tactile examination is no longer recommended as a method for caries detection. Therefore, visual caries detection and diagnosis is the basic examination method for dental practitioners, epidemiologists, teachers and scientists. While the detection of cavitations was the main diagnostic approach in the past, there is a strong need to consider non-cavitated caries lesions as a relevant dental health indicator due to their high frequency (Figure 2). As such lesions will not be registered with the DMF index, new and more precise visual caries detection and

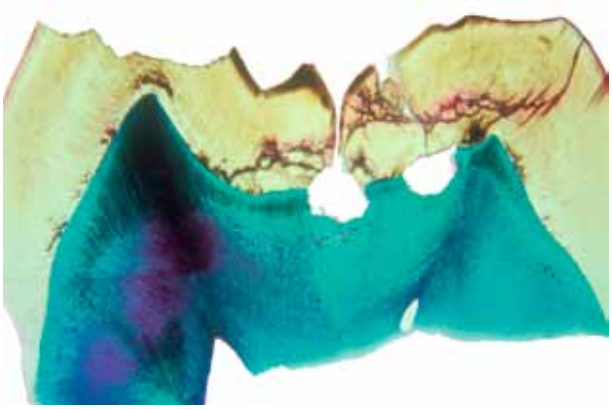


Figure 1. Stereomicroscopic appearance of a rhodamine-B-stained slice with an irregularity below the enamel-dentin junction. The histological slice shows that there is a tight fissure pattern, a missing fissure fundus and that the body of the irregularity is located below the enamel-dentin junction without presence of any mantle dentin. Furthermore, no carious-like staining is detectable in the dentin.

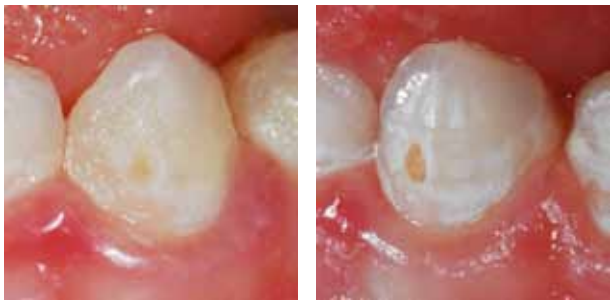


Figure 2. The meticulous visual examination requires a cleaned and air-dried surface to detect and diagnose the caries process.

diagnostic methods should be used to record the overall dental health status of a patient. Recently introduced diagnostic systems, e.g. the criteria by Ekstrand et al. (1997), Nyvad et al. (1999) and the ICDAS group (International Caries Detection and Assessment System, www.icdas.org), have included non-cavitated caries lesions, but classify the caries process with only a few criteria. However, due to the fact that the clinical appearance of carious lesions is complex, a limited set of criteria seems to be unlikely to describe the clinical appearance as precisely as possible. Therefore, our work aimed at systematising the clinical appearance of caries lesions throughout the last and to develop the Universal Visual Scoring System (UniViSS, www.univiss.net), which can be used on occlusal and smooth surfaces in primary and permanent teeth.

UniViSS has to be understood as a three-step diagnostic procedure to classify the clinical appearance of carious lesions. (1) The first step is to detect a caries lesion and to assess the lesion severity. For severity assessment UniViSS uses a sequence of criteria ranging from healthy surfaces, non-cavitated caries lesions (e.g. first visible signs, established lesions and microcavities), cavitations up to the caries-related tooth loss. (2) In a second step, the discoloration (white, white-brown or brown) can be registered. (3) The lesion activity can be recorded as a Yes/No decision. As the activity assessment should be regarded as a clinical diagnosis, such decisions cannot be made in laboratory studies.

When analysing the diagnostic performance for occlusal surfaces, it can be concluded that the validity and reproducibility results are encouraging. Fissures with `First signs´ of a caries process had a mean enamel involvement of 90% in the direction of the enamel-dentin junction when analysing the histological caries extension of such cases. This finding indicates mostly a preventive intervention. The severity score `Established lesion´ showed a heterogeneous distribution of the histological caries depth in relation to the discoloration score. The histological caries depth for `Established lesions´ with white and brown discolorations (both 10% dentin involvement between the enamel-dentin junction and the pulp) as well as white-brown discolorations (30% dentin involvement) indicate a caries progression into the outer third of the dentin. While in those cases with a white or brown discoloration preventive measures are recommended, operative intervention might be indicated in lesions with a combined white-brown appearance. This is also necessary in `Microcavities´ (40% dentin involvement), cavitated lesions with `Dentin exposure´ (50% dentin involvement) and `Large cavities´ (70% dentin involvement) which have always progressed deep into dentin. Nevertheless, it has to be mentioned that non-cavitated caries lesions require more frequent additional diagnostic evaluation with the aim to diagnose the caries process as precisely as possible. Considering the overall validity of UniViSS in comparison to previously published results of different visual caries detection and diagnostic systems, the documented Az values under ROC curves for the overall caries detection level (0.84) and for the dentin caries detection level (0.82) are in excellent order of magnitude. According to our results the intra- and inter-examiner reproducibility can be assessed also as good provided that a theoretical and practical training was conducted. The registered Kappa values documented a substantial to perfect agreement.

Additional Diagnostic Methods

The diagnostic value of BR for the investigation of proximal caries is undisputed. The majority of enamel and dentin caries can be detected and diagnosed radiographically only in comparison to the visual inspection alone. The usefulness of BR in detecting occlusal caries lesions on the other hand remained unrecognised until the 1980s. It was ▶

not before then that the overall caries decline together with a high incidence of carious lesions on occlusal surfaces and/or of hidden caries led researchers to reconsider their position. Today many experts consider BR as method of first choice for proximal caries detection and as method of second choice for occlusal caries detection.
Beside BR several additional methods were introduced to the dental market over the last two decades, e.g. electrical resistance methods, electrical impedance spectroscopy as well as photo-optical instruments, e.g. quantitative light-induced fluorescence and laser fluorescence. From today´s point of view the majority of these methods did not reach the general dental practice. Out of the above mentioned methods, only the laser fluorescence measurement (DIAGNOdent, KaVo, Biberach) gained any attention for evaluation of pits and fissures. The laser fluorescence technique was introduced to the dental market in 1998. Some years later - in 2005 - the DIAGNOdent Pen became commercially available; the device was reduced in size and designed as a hand piece now. Various studies investigated the validity and reproducibility of the laser fluorescence and found mostly acceptable results. Nevertheless, it has to be stated that only pits and fissures can be investigated with this method.

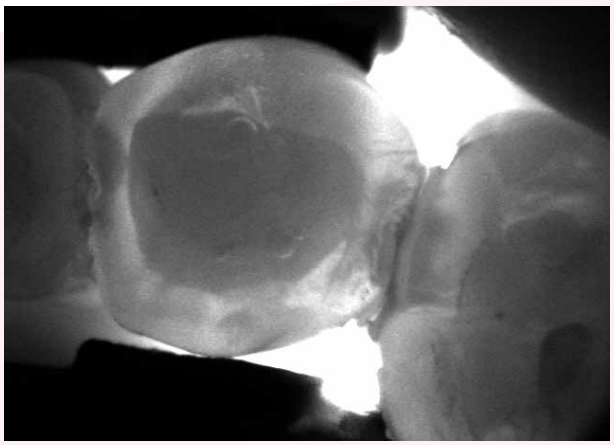


Figure 4. Near-infrared image of a premolar and a molar which shows enamel caries lesions - dark areas in enamel - on mesial and distal surfaces.

X-ray-free Caries Detection and Diagnosis

Beside this general overview of methods this paper will further give a short introduction to the new DIAGNOcam technology (KaVo, Biberach, Germany), which was introduced to the dental market in autumn 2012 (Figure 3). The main advantage of this method has to be seen in the possibility to capture diagnostic images from proximal spaces without using ionising radiation. The technology uses near-infrared light (λ~780nm) to illuminate the tooth crown through gingiva and alveolar bone. If a caries lesion is present, the light will be scattered and absorbed which reduces the light intensity in comparison to the surrounding sound hard tissue. From today´s point of view the configuration of the proximal lesion in enamel provides valuable diagnostic information. While triangular lesions

Figure 3. Clinical usage of the DIAGNOcam device.

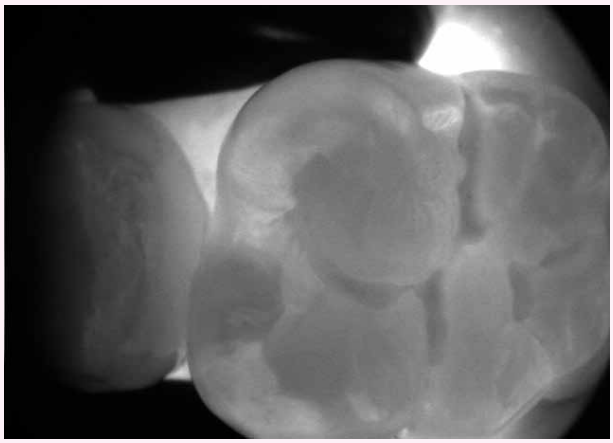


Figure 5. Near-infrared image of a molar with a dentin caries lesion on the mesial surface. The lesion has a quadrangular configuration which indicates an involvement of the enamel-dentin junction.

Near-infrared light technique is replacing ionising radiation in caries detection

are mostly restricted to enamel (Figure 4), the majority of quadrangular caries lesions reached the enamel-dentin junction (Figure 5). Especially, the latter lesions seem to be associated frequently with dentin caries progression and may indicate an operative intervention. These experiences are supported by the results of a first clinical study which aimed to investigate the validity for detecting proximal dentin caries lesions with this new photo-optical camera system. This *in-vivo* study included 95 proximal, visually non-cavitated carious lesions from 50 healthy patients (>12 years). Additionally, BR and near-infrared images were undertaken. The determination of the true caries progression (validation) included the caries assessment at the enamel-dentin junction (EDJ) and the excavation with a self-limiting polymer bur (PolyBur, Komet, Lemgo, Germany). Before restoring the cavity with a composite an impression was taken. The true caries extension (= reference standard) was determined by 1) producing a stone model of the cavity, 2) taking a BW of this model, 3) overlaying the clinical BW and the BW of the model, and 4) measuring the caries extension between the EDJ and the pulp. As a result of our study we found on BR in 2.1% of all cases a D1-2 lesion, in 84.2% a D3 and in 13.7% a D4 caries. The sensitivity for BW was 97.8% (N=92). On 96.8% of all near-infrared images a dentin caries was diagnosed when the enamel was completely demineralised at the proximal contact area and that the EDJ was simultaneously cariously penetrated. The sensitivity value amounted to 96.8%. On the basis of these results it can be concluded that this new photo-optical device showed the same validity for proximal dentin caries detection in comparison to BW. But the DIAGNOcam method could help to reduce the need of BR in future. While these very first results are promising it must be stated that many more scientific information will be needed, e.g. to assess the overall diagnostic performance in comparison to visual and radiographic findings on all teeth and surfaces in the permanent and primary dentition.

Conclusion

The basic methods for caries detection and diagnostics are the meticulous visual inspection under inclusion of non-cavitated caries lesions and BR. As both methods are available in all dental practices this approach can be fully recommended. In future, the DIAGNOcam technology may have the potential to minimise or replace dental radiographs for caries diagnostic purposes on proximal and occlusal surfaces; until then many more studies have to be initiated.

Dr. Jan Kühnisch
Ludwig-Maximilians University, Munich, Germany

References available on the ICD European Section website: http://www.icd-europe.com/

Oral Health on Wheels

As the saying goes, "If Mohammed won't go to the mountain, the mountain must come to Mohammed". The same is true for oral health, which is why "Smiling World" developed the project "Oral Health On Wheels", a bus which aims to take oral health care to every corner of the country.

Migual Pavão

Through the presence of the bus in different schools of various towns in Portugal, this project has contributed to a closer relationship with the younger population, highlighting education and the importance of oral health care. Since 2009 this project has already taught the technique of toothbrushing to over 18 thousand children.

Project "Smiling Fogo in Cape Verde"

With the intention of improving the oral health of children, teenagers and adults of the Fogo Island, "Smiling World" developed a project "Smiling Fogo in Cape Verde", which took off in 2010. The promotion of oral health encompassed the 27 schools of the island, where the health professionals, dentists and hygienists give training and education sessions as well as distribute toothbrushes to children between the ages of 5 and 10.

This project not only fosters a closer relationship with the population, but also promotes awareness of oral health by providing information and knowledge about diet and mouth health. The annual per capita sugar consumption in Cape Verde almost equals that in Europe, 37 kilos, emphasising the need for prevention and education about oral health and the risk of tooth decay.

Project "Support Center to Oral Health"

Besides "Oral Health on Wheels" and "Smiling Fogo in Cape Verde", the International College of Dentists sponsored other projects of "Smiling World", such as "Support Center to Oral Health".

This project developed by "Smiling World" (SW) has its headquarters in Conde Ferreira Hospital. Implemented in 2009, this projects involves 39 dentists and since its beginning provided more than 3500 consultations, 8868 treatments and 106 oral rehabilitations with dental implants.

This project earned SW the 2010 Citizenship Award and was highlighted by the President of Portugal as an NGO of Good Practice. The "Support Center to Oral Health" project was also distinguished by the Education Clinic in October 2011 as part of the "Smiling in Education" project, which aims to highlight and recognise, annually, the merit of institutions or projects that stand out for their excellence in the performance of their duties in education.

This project focuses on children, the elderly, pregnant women and special needs populations and receives patients from 24 institutions with which "Smiling World" has established protocols. In the consultations given in the scope of this project, in addition to the different treatments such as restorations, exodontias, implants, etc., patients also receive kits which include toothbrushes and toothpaste. The "Support Center to Oral Health" project has been listed on the Social Stock Exchange since the end of 2010.

President of the Smiling World Wins an Award

For being "inspiring" and having developed notable work that serves as an example of good practices, Miguel Pavão, founder and president of the Portuguese NGO Smiling World was awarded the 1st Prize "Our Heroes" by Visão Solidária and Montepio. This prize annually highlights and honours work developed by people and enterprises for charity projects in Portugal.

Currently at the age of 32, Miguel Pavão founded Smiling World in 2005, at the time 24 years old and having just graduated in dentistry. The idea originated from a trip to Cape Verde in which he was faced with the painful reality. At the heart of the institution is the urge to take oral health to the needy populations, making it a universal right. ■

Dentists Without Barriers in the

Dominican Republic

Dentists Without Barriers was founded 15 years ago, as a Non-Profit Organisation in Madrid, Spain, to work with poor people in Nicaragua, Honduras, Haiti, India and in the Dominican Republic.

Vicente Lozano-de Luaces

As coordinator of the well-known NGO 'Dentists Without Barriers' for India and the Dominican Republic, I have been able to start a new humanitarian project in the Dominican Republic in Los Montones Place, near Santiago de Los Caballeros. A group of 14 dentists was formed; objective was to treat patients' tooth decay and periodontal diseases by offering prevention programs, root scaling and root-planing, root canal treatment and tooth extractions. In July and August 2012, we saw 3,512 patients. Tooth decay: 812; scaling: 2,022; children fluoridation: 630; tooth extractions: 2,130. In total 5,320 interventions. All funding and dental materials were privately donated and employed to buy dental materials and instruments. Dentists Without Barriers receives no government subsidies. ■

Dental Care for the Poorest of the Poor

Fully Functional Den in Remote Philippine

A fully functional dental clinic has been set up in a remote village in the Philippines with support and funding from the Philip Dear Foundation of the International College of Dentists, European Section.

Hani Farr

The dental clinic, complete with modern dental chair, dental equipment and instruments, is located in the Gawad Kalinga (GK) Hope Village in Barangay Cabatangan, Talisay, Negros Occidental, Philippines. GK Hope is a small village consisting of about 300 families in the middle of a sugarcane plantation, 7 kilometres from the city of Talisay.

The dental clinic was erected and retrofitted within 14 days in late June, early July 2012. As a dentist and periodontist from Vienna, Austria I travelled to the Philippines to check local conditions and personally supervise construction and installation of the clinic. I had successfully initiated similar projects in Mexico and the Dominican Republic for ICD, and was well-positioned to be the primary contact for the project.

With the generous financial support of ICD Europe, I was able to purchase the needed dental equipment and instruments in Manila and had them delivered to Talisay at short notice. Together with Talisay City Mayor Eric Saratan, I was also present for the official opening of the dental clinic on 7 July 2012.

The dental clinic is the first and only dental clinic in the Gawad Kalinga network of villages in the Philippines. With the cooperation of several local dentists, free dental care can now be offered not only to the residents of the village but neighbouring villages as well. It is expected that the clinic will benefit over a thousand families within a 15 kilometre radius.

During this trip, I was also able to visit the Iloilo Doctor's College of Dentistry, where I reached a tentative agreement with school officials to involve the young graduates in the project. This may include on-site training at the GK Hope dental clinic in areas such as periodontics and prophylaxis, endodontics, surgery and implantology.

tal Clinic Erected Village

In this way, the dental clinic project supported by ICD Europe will not only be able to provide free dental care for the GK residents and neighbouring population, but will also encourage education and training in dental care and oral hygiene.

Background

The term Gawad Kalinga means support or assistance, or to provide assistance.

Gawad Kalinga (GK) is a non-governmental organisation (NGO), which has set itself the task to provide fdecent homes for the poor and needy people in the Philippines and to improve their living standards through education, livelihood and free medical care. GK recipients are the poorest of the poor, the homeless and those living on the edges of society in so-called slums. GK supports more than 2,000 villages spread over the entire Philippine islands. In each of these villages live 300 to 500 families.

Type of Dental Care

The city of Talisay in the island of Negros Occidental has about 600,000 inhabitants. The main source of income is agriculture (sugarcane planting). 230,000-250,000 people live in the barangays (barrios), where the dental clinic is located. There are no existing medical or dental care facilities within a 15-kilometre radius. In emergencies, government dental clinics are visited, but they are not always open. Treatment options are limited to pain relief measures and tooth extraction. Therapies and filling root canals are rarely practiced. Dentures are a foreign concept to the local inhabitants as the population barely has the necessary financial resources. Treatments for practicing dentists are not affordable for the average citizen. ■

Developing an Evidence-based Approach to ICD Projects

Part of the mission of the ICD is 'dedicated to the continued progress of the profession of dentistry for the benefit of all humankind'. Toward that goal, each of the autonomous College Sections creates and sustains humanitarian and educational projects around the globe.

Phillip Dowell and Kenneth Eaton

Background

In 2011, International President Dr. Charles Siroky made a compilation of the top-5 projects for the previous five years from each of the 15 autonomous College Sections and titled it 'Project 55'. The resulting document can be viewed on the ICD website www.icd.org. Since that time, the projects listed have been updated and continue to be monitored.

Following the 2010 ICD European meeting in Maastricht, where Professor Wim van Palenstein Helderman addressed the issue of inadequate access to oral health services by a large part of the global population, the European Section reviewed its policy and funding for humanitarian and educational projects and drew up what was called the five 'S's as a template for aid.

The five 'S's suggest that projects should be simple, sustainable, suitable to local needs, serviced by a local contact, and finally supported by a written protocol.

Problems to Overcome

Market forces, security of funding, and lack of clarity about who is responsible for ensuring that oral care is available seem to present insurmountable difficulties. Aid projects by dental volunteers, though laudable, are by themselves inadequate to solve dental access problems. They cannot produce the work force needed to meet the demands of the underserved, neither do they address systemic issues such as lack of dental insurance or the need to prioritise mass prevention. By their nature, such aid projects are provider-driven and not designed to meet the needs of underserved populations. They do not empower patients, families or communities, or provide ongoing care, and it is clear that the oral health problems of the global population are insurmountable in just one step.

The European Section's Response

The Projects and Funding (P&F) Committee of the European Section of the ICD seeks to utilise the help of public health experts in reviewing both educational and humanitarian aid programmes to low and middle-income countries. The Committee has been realigned from the Flexible Learning Advisory Group (FLAG) which arose from the ICD connection with Udente (Universal dental e-learning) to incorporate all projects and to be responsible for all aspects of funding. At present, the funding comes from the Philip Dear Fund (PDF), named after the founder of the European Section. The PDF takes five euros from each Fellow's annual subscription, so clearly with just over 600 Fellows throughout Europe this fund does not produce a large sum of money. However, the European Treasurer, Walter van Driel, has made significant resources available to the PDF from the European Section's reserves. Nevertheless, it is necessary to look for commercial sponsorship to make project funding sustainable in the longer term.

How Bids for Projects are Assessed

When assessing any project, it is important to consider the efficacy of giving and then ask these questions: When will fundraising stop? How will we know, when it does stop, that it was successful? How do we share information on its success and failure with you the donor? Every project that is assessed must conform to the international standards that are now well documented, and it is important that

the College look to achieve a high benefit-cost ratio, not only for the benefit of the recipients but also to facilitate sustainability of funding in the longer term. Charities need to get serious about sustainability. As a concept it is uncontroversial, as the saying goes, 'Teach a man to fish or better still build his own fishing rod'. Sustainability does not mean solving today's problem, it means ensuring that local people can solve their own problems independently of external assistance.

It is with all these concepts of aid in mind that the European Section's Projects and Funding Committee decided to redraft the application form for funding to the Philip Dear Fund and to make it more scientific and evidence-based.

The Revised Application Form. Why Was it Needed?

The previous section of this article addressed many of the reasons why a new approach and application form was needed. A well-planned evidence-based approach is more likely to result in a successful project and ensure that the funds provided are well spent. The applicants must specify exactly why the project they are asking ICD, or any other organisation, to fund is necessary. A single sentence such as "the children in this region all have major problems with dental caries" is utterly inadequate.

The Project Protocol (Plan)

The next part of the application must explain in detail how the project will be executed. This must be in the form of a scientific protocol or plan.

After the title, the first section of the application should give full background details of all aspects of the problem that the proposed project is trying to address and of any work that has already been done to solve it. This section should give a clear indication of the reasons why the project is necessary. The application should then succinctly state the aim or aims of the project so that the assessors of the grant and those who are bidding for funds have a clear understanding of what is to be achieved.

How Will the Project Be Carried Out?

Applicants must then describe the methods they intend to use to achieve their aims, in detail.

Apart from a detailed description of the methods, they must include their proposed time schedule, details of how the project will be managed locally on a day-to-day basis and how they will monitor progress and send regular progress reports to the ICD P&F Committee chair. Also, details of exactly who will be responsible for accounting for the funds and their security and ensuring that they are kept safe and spent prudently. They must also explain how purchased equipment will be kept secure and maintained in good condition. Finally, they also must give the names, roles and contact details, together with CVs, of all local and ICD stakeholders.

In order to assess outcomes, baseline values must be established for prevalence of the various oral diseases (dental caries, periodontal diseases, oral cancer) and then reassessed after agreed periods of time.

Expected Outcomes and Publicity

The next section of the application requires applicants to list the expected outcomes. They must be realistic and give reasons why they appear likely to be achieved, together with mention of any factors which may put success at risk. Outcomes need to be published, so applicants must also specify how they intend to publish the results of their project and in so doing raise further funds and the profile of the ICD and the Philip Dear Foundation.

Assessing Need. Complicating Factors

It has to be said that in many developing countries, oral health quite reasonably comes second to major health and welfare problems such as clean water, sanitation, having enough to eat and a safe place to live. These factors should be taken into consideration when planning an oral health project and should be mentioned in an application. Potential or actual civil disturbance, crime, corruption and the political situation must also be considered and possibly mentioned in the application. A strong application considers these factors and how they may impact the outcomes of an oral health project.

Guidance from the World Health Organisation

WHO has published a series of documents and manuals to guide healthcare workers. Oral Health Surveys – Basic Methods is one such manual. A fifth edition has been ready for publication for several months but has not been published because of lack of funds. The ICD has pledged to help WHO to meet the publication costs, as the advice in the manual is invaluable to all those who organise and run oral health projects. It provides them with mechanisms to assess the prevalence of oral diseases at the beginning of a project and at set time intervals.

The Future

Having received an application for funding, the P&F Committee has to consider all the above points. It must also take into account the potential duration of the project and whether there will be sufficient funds to achieve a sustainable outcome even after the funding has stopped. Collaboration with local and national government as well as bona fide NGO's may improve sustainability and should be carefully considered and indeed encouraged.

There are many projects throughout the world, both educational and humanitarian in nature, which have ICD involvement, either with individual Fellows or through College Districts or Sections.

The European Section has led the way in formulating an evidence-based approach to ICD projects and brings a new dimension which, it is hoped, will be taken up by not only all the other Sections, but also by the individual Fellows who give so much of their time and energy in trying to deliver one of the core aims of the ICD. It behoves us all to ensure that it is done in the best possible way. ■

Phillip Dowell and Kenneth Eaton are Chairman and Member of the Project & Funding Committee

Signs of Stability and Relevance?

Growth and Develop

The newly installed President of the College at Large, Dr. Leon Aronson, wrote a personal letter to our own Section President Dr. Henrik Harmsen as follows: "It is a pleasure and an honour for me to serve as the 2013 College at Large President at the same time you are serving as your Section's President. My emphasis this year will be to stress the need for and the importance of Growth and Development of new Sections and Regions, as well as existing ones, and to stress the relevance of the College at Large. I hope that you, as the President and leader of your Section, will help us accomplish these goals."

Frans Kroon

Growth & Development has always been a major and important issue in our Section and has certainly been given extensive attention the last ten years by most of the leading Presidents of the Section and especially by the Past Chairmen of the Committees on Growth and Development as well as by the Committee especially devoted to the expansion into Eastern Europe.
Over the last decades, the European Section – autonomous since 1955, and mainly covering Western Europe (& Israel) – gradually reached the number of 13 Districts by adding new Countries to Districts and by splitting Districts as soon as a Country could become a separate District.
The work of the Committee for Eastern Europe under the leadership of Dr. Joe Lemasney has resulted in the start-up of a separate District for Central & Eastern Europe for which Dr. Ljubo Marion, Slovenia, has been the inspiring Regent from the very beginning.

Even by having 14 Districts, the European Section includes over 35 Countries. Until recently Growth and Development was realised by using the method of "seeding". In various Eastern European countries a few colleagues were invited for Fellowship and inducted at the Annual Meetings of the Section. Despite the continuing and hard work of the Regent of District 14, the effect of growth in those countries does not fully meet the expectations of the Section's Board.
An important item in that respect to consider (or reconsider?) might be the fact that perhaps the cultural and economical differences between the western and eastern countries are more profound than supposed and therefore prohibit a fast and vast expansion.

As apparently growth as a slow-going process seems not suitable anymore, it is time to reconsider our methods for Growth and Development. Moreover, one must realise that the combination of membership by invitation-only and the exclusiveness based on supposed and required qualification for Fellowship are intrinsic reasons for limited size and growth of the College and its Sections.

At the recent Winter Meeting of the Board of Regents in London, it was discussed whether the line of growth through expansion per Country by inducting a much higher number of Fellows at one time, as used by the College at Large in Section XX, the so-called International Section, should also be preferable for the European Section. The European Section has accepted and will cooperate in supporting the proposal of the International Council to expand into Russia by this method through Section XX. It might bring new perspectives on the growth of the ICD in what has to be considered as 'Greater Europe', or it could even lead to the wish (or the need?) of the institution of a new and second European Section, especially for countries of what is now still considered as Central & Eastern Europe.

Most probably related to the general economical differences between Western and Eastern Europe, individual financial limitations have at times prevented some Eastern European Fellows from attending the Annual Meeting, even when sponsoring was offered. However, the present financial crisis in Europe has also impacted attendance from the current Districts in Western Europe and in some instances even the interest in accepting the invitation for Fellowship.

ment

Therefore the Board of the European Section should be highly aware of the need also to spend its energy to increase or at least uphold the numbers of (active) Fellows in the existing Districts while continuing its important work to promote educational and humanitarian projects in and through the various Districts.

The College founders' visionary concept is still most valuable, even though in developing dental health care, global communication and educational as well as humanitarian projects, major efforts have been facilitated or realised also by other dental organisations and societies. Basic needs and problems in underdeveloped countries, and demands for support in teaching even in neighbouring countries are still a major challenge for the College to develop and support appropriate educational and humanitarian projects.

The strength of a society as the International College of Dentists is safeguarded by combining the wonderful gathering of devoted Fellows – invited on the basis of their experience and their aspirations for excellence in dentistry and the promotion of dental health and care worldwide – with an objective of selective growth and expansion, necessarily limited by the required qualifications, the reasonable size of the institute itself, and the need to collaborate with and respect other worldwide dental societies.

Frans Kroon is the Chairman of the European Section G&D Committee

The strength of a society as the ICD is safeguarded by combining the wonderful gathering of devoted Fellows with an objective of selective growth and expansion

Conversation with Henrik Harmsen, European Section President

Tell us about your time in ICD?

I was inducted in Amsterdam in 1999 when I was 38, and that was a fantastic experience.

Here I was among distinguished colleagues who all had done something above average in their field. It really was a pat on the shoulder – as you would say in Danish.

Over the years the feeling of being welcomed from the heart has grown strong and stronger, and wonderful and warm friendships have been formed.

I have attended every meeting since then, except the one in Bilbao, Spain, which I deeply regret to this day.

The ICD has taken me to some wonderful places and given me experiences otherwise difficult to find.

Tell us about the plans for Copenhagen 2013?

The plans have been laid more than two years ago, and are now being executed.

The idea has been that we should be as close to everything as possible, and therefore the congress hotel is just across the street to where the scientific day will be held, and where the induction ceremony will be held.

The heart of Copenhagen is just about 1.6 km in diameter, so you can walk through the longest pedestrians street of the world in 30 minutes, and the metro takes you from the airport to the city centre in 15 minutes, and when you arrive, there is only 300 metres to walk to the hotel.

On Thursday we will have a welcome reception at the city hall, followed by dinner in a restaurant in Tivoli. Tivoli is the oldest amusement park in the world and there is something for young as well as old. Since it is partly outdoor I advise you to think of practical shoes. This is the only long walking distance of 1.6 km, but a bus will be available also.

In mid June we have the evening light, and the sun sets just before 2200 hrs, so if you want to experience the many lights of the garden you had better stay a little longer. There are many rides you can try, but you might just as well sit and enjoy a drink of some kind. How about some good Danish beer?

Friday night will be a tour around the canals of Copenhagen, and include dinner at the top of the Royal Opera House where you have a fantastic view overlooking Copenhagen.

Saturday we will cross the street again to have the induction ceremony in the Odd Fellow Palace and then back again to Moltke's Palace for the gala dinner

Do you have a programme for the accompanying guests?

Oh yes! I have put together a most wonderful tour. It will be a tour up the coast to Louisiana, museum of modern art. The museum is beautifully situated on the coast in a park with sculptures. Exhibitions are changing all the time, but there is also a permanent exhibition. Lunch will be served there. After that the tour goes to Kronborg Castle, which is the biggest renaissance castle north of the alps. Shakespeare set his play Hamlet here.

There are of course many other things to see, but I want you to be back in Copenhagen in due time, so that you have a moment for yourself to stroll around and experience the city.

What is the main topic for the scientific day?

The theme is Changing Paradigms in Dentistry. To me the ICD is not the place you go to cultivate your specialty, but it is rather a place that nurtures interdisciplinary thinking. I can think of no other organisation or society that encourages such a level of interdisciplinary thinking. If you go to a meeting of implantologists all you talk about is implantology, and you will very likely miss out on what the periodontists or prosthetists have to say, not to forget the orthodontists.

That is why I have tried to put together a programme that will cover a lot of different areas as a kind of an eye opener, to break out of the habitual way of thinking. I hope to raise some questions and give food to some thoughts, and then leave it to the participants to come up with the right answer for them.

How do you see the changing paradigms for dentistry?

Technology has given us some wonderful tools when it comes to treating disease. Digitalisation has done miracles in radiology and diagnostics as well as learning and exchanging of knowledge, but also introducing the hardware of dentistry such as crown and bridgework on natural teeth as well as implants.

As a consequence of that I see an increasing tendency towards specialisation, which in a way is advantageous to the specific problem of the patient, but the danger in it is that the patient might very well receive top treatment in this one specific field and the big picture being lost in the process. You could also put it this way: if you are a hammer, there is a tendency that every problem is a nail.

ur Mindset

How do you see the future for dentistry?

Digitalisation is here to stay, and as our skills in almost every area grow and we are able to do more and more complex cases, so does the demand for communicative skills increase.

It is no good that we learn all these things if we are not able to communicate them to the patient in such a way that they accept our treatment.

In society as a whole I see an increasing demand for dentistry, or more precisely, what dentistry can do. On the other hand I see less interest to further this politically and thereby financially. Awareness of the importance of dentistry seems to be losing ground in our political systems, and budgets have been cut at universities as well as in social security and insurance over the last 25 years.

Ironically, dentistry is the one area where with very little effort you can make a huge impact, at least on the 2/3 or 3/4 of the population that go to the dentist on a regular basis.

What is Ove's part in your business and private life?

Ove is a graphic designer with his own business, and he has designed my homepage, but in relation to the ICD everything printed as well as electronic in relation to ICD 2013 was done by him. Being two business people together gives rise to a lot of mutual sparring and fun.

Privately traveling the world is one of the great joys and here the ICD offers some good opportunities.

What do you do in your spare time?

I cannot remember that there was a time when Mozart was not in my life. Indeed all classical music and opera as well is very close to my heart. Writing this I am flying to Miami to the Pankey Institute for the 5th week of learning in two years, with Mozart piano concerto No. 23 in my ears. In the wintertime one of the best places I can be on a Sunday is in front of the fireplace listening to music and reading or just looking out over the garden and the sea. In summertime you are likely to find me on a cycle or walking. History and art are also some of my main interests.

What do you think is special about ICD compared to other organisations?

All Fellows have achieved something extraordinary. They come with their spouse, and it is actually a very relaxing environment to be in. It is a fellowship and not a membership. The value to me is in the mixture of scientific and social gathering. It is a place of inspiration, and if you are open to it, you will find such a multitude of various skills professionally as well as personally.

That also means that part of the value emerges over time when you come to the meetings on a regular basis, because then you are not just coming to hear so and so speak, but to meet your dental friends.

On www.youtube.com there is a short lecture called: "When ideas have sex". Take a look at it, and you will see that the ICD is a very powerful place for your ideas to mingle, and the more you attend, the easier conversations take off and the more welcome and at home you feel.

What are the greatest challenges you see in dentistry for the next decade?

Traditionally dentistry has in one way or another been subsidised by state or insurance. The tendency is that that support diminishes, and we therefore have to rely on the public to pull the wagon, so to speak.

There is a very large task for our professional institutions to educate about what dentistry actually can provide. Not just in terms of dental health but in general health as well. Especially in the area of general health I see potential for dentists, and I think that that role is being underestimated today.

To me being a dentist equals continuous education, but I do not see that for all. I actually see a lot of dentists with 4-6 years of education that is suddenly 25 years old. The way we think is the way we feel is the way we appeal.

In order for dentists to move and inspire the public, we have to shift our mindset from having had our education and that was that to a mindset of continuing education. Only then can we be true carriers of new ideas and thoughts and maybe help turn the tide through our daily interactions with the public.

What the mind does not know the eye cannot see, the ear not hear. For us to be more than just safe beginners when we leave dental school, growth is required. If we are to be full and whole human beings in balance, this requires more than a continuing education on the latest techniques on something.

Is there a post-congress tour?

Yes there is, and it goes to Roskilde and the Viking ships museum. One of the ships that are on display there was actually built in Ireland before 1000 AD, underscoring that travel and exchange are not a new thing.

After that we are going to have lunch on a boat on Roskilde fjord. Denmark is in many ways like a garden and nowhere better is she experienced than from the sea. ■

COPENHAGEN 2013

International College of Dentists

European Section

58th Annual Meeting
Copenhagen, Denmark
13-15 June 2013

WELCOME

Dear Fellows and Guests,

It is a great honour and pleasure for me to invite you all to come to Copenhagen to join the 58th Annual Meeting of the European Section of the International College of Dentists.

Back in 1996, Copenhagen was selected cultural city of Europe, and the last 16 years have brought considerable development, including a new playhouse and one of the most advanced opera houses in the world. Copenhagen is also the town of Hans Christian Andersen, Søren Kierkegaard, the little mermaid – a city that inevitably invites you to stroll and walk. However, the longest distance you will need to cover on foot will be 1600 metres through the longest shopping street of the world – Strøget, but transportation will be available where needed.

The conference hotel is Hotel Phoenix which is just across the street of Moltke's Palace, where we will have the scientific day as well as the induction ceremony and the gala dinner.

We will have a welcome reception at the city hall followed by a visit to and dinner in Tivoli. There will be a tour of the harbour and canals of Copenhagen followed by dinner at the new opera house.

The accompanying persons tour goes to Louisiana, museum of modern art beautifully situated on the coast north of Copenhagen, followed by a visit to Kronborg Castle (where Hamlet takes place) and one of the most important renaissance castles of Northern Europe.

I look forward to greeting you all personally at our 58th Annual Meeting, and participating with you in the scientific and social events that make our ICD congresses so wonderfully unique.

Henrik Harmsen
European Section President

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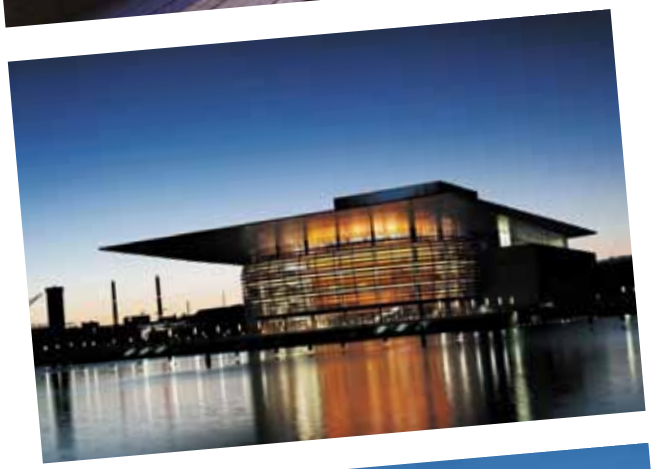

SCIENTIFIC PROGRAMME

Changing Paradigms in Dentistry

Ashok Sethi	Backward treatment planning.
Francesco Martelli	Lasers in periodontology/peri-implantitis.
Tif Qureshi	Alignment, bleaching, bonding. Great change, and little or no drilling to create a nice smile.
David Winkler	Ethics in aesthetics.
John Orloff	Failures in implantology – when minor details matter.
Kwang Bum Park	Anyridge – a new concept in implantology.

SOCIAL PROGRAMME

Wednesday 12 June 2013

Pre-congress golf tournament at Royal Golf Course.
Regents dinner at Geist.

Thursday 13 June 2013

Welcome reception at city hall in Copenhagen.
Welcome dinner in Tivoli.

Friday 14 June 2013

Scientific day at Moltke's Palace.
Accompanying persons tour to Louisiana, museum of modern art and Kronborg castle (Hamlet).
Boat tour departing from Nyhavn through the canals and harbour of Copenhagen.
Dinner at the Royal Opera House.

Saturday 15 June 2013

Induction ceremony, cocktails and gala dinner at Moltke's Palace.

Sunday 16 June 2013

Post-congress tour to Roskilde, to see the Viking ships followed by a dinner cruise on Roskilde fjord. Once we were vikings, and Denmark is best and most beautifully experienced from the seaside.

Hotels

Congress hotel - Phoenix, 4 stars.
Alternative hotel - Opera, 3 stars.

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The management of dental caries in Western European and low-income countries

How to Handle?

This paper seeks to investigate how we can understand current barriers in (oral) health systems by understanding historical evolution, and innovative practices that gradually emerge from the scientific literature.

Wim van Palenstein Helderman

Summary

Aspects of oral health care in two countries, the Netherlands and the Philippines are described to present a background for better understanding of the current situation and for developing new strategies. The reforms pursued to address the (oral) health care system, with its exorbitant costs, its unsupportable amount of untreated caries in low-income countries and the unaddressed problem of oral care of an ageing population have not yet led to true resolutions of the persistent problems facing the (oral) health care system, but certain small-scale undercurrent developments have shown promising perspectives. A sound understanding of strategies developed in small-scale studies about transitions and system innovations may contribute to further reforms of the (oral) health care systems in those two countries which serve as an example for countries in comparable situations.

Introduction

Western dental technology has made huge steps forward in restorative and reconstructive treatment with the ultimate success of implantology. The dental profession in low-income countries is strongly focused on this western dental technology model. Since dentists in low-income countries have the intrinsic tendency to mimic the high-tech dental services provided by their western counterparts, it might be of interest to have a closer look at the western dental care system in its relation to the quality of life and the costs involved.

With the impressive technology developments in the last decades and the increased dental mindedness, the prevalence of edentulous patients has declined and the quality of life related to oral health has increased in the Netherlands as well as in other western countries. These improvements have been achieved at the expense of unverifiable costs, and at the same time lifestyle-associated oral diseases are still prevalent (caries and periodontal diseases) or are emerging at a frightening rate (dental erosion and root caries in the elderly). What strikes one the most about (oral) health care services is that it is mainly 'cure' and not 'care' oriented. It implies that the services provided are focused on curative treatment and less on care directed to guide the patient to proper self-care and life styles and conditions compatible to (oral) health. This is a general alarming characteristic of the current (oral) health sector.

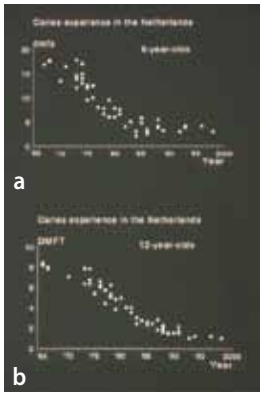


Figure 1. Decline in caries experience of 6-year-olds (a) and 12-year-olds (b) in the Dutch child population between 1965 and 2000

Western European Countries

Decline in Caries in The Netherlands

Figure 1 clearly depicts the decline in caries experience in the Dutch child population. To explain the depicted caries reductions in 6- and 12-year-olds, a direct interaction was supposed between caries experience and oral health education (OHE) in clinics and preventive measures at the 'dental chair'. The following paragraph details the available information from the scientific literature which shows a lack of the supposed close association between OHE and improved oral health:

1. Figure 2 shows the caries experience of 6-year-olds in communities with and without OHE project in the period between 1967 and 1982. Similar to Figure 1, the overall caries experience of 6-year-olds in Figure 2 declined in the period 1967-1982, but a difference in caries experience between directly exposed children to OHE and those without that exposure was not found.[1]
2. A review paper indicated that dental services could explain only 3% and broad socio-economic factors 65% of the decline in caries experience of 12-year-olds between 1970-1980 in 18 industrialised countries. The findings suggest that dental services were relatively unimportant in explaining the caries decline in 12-year-olds.[2]

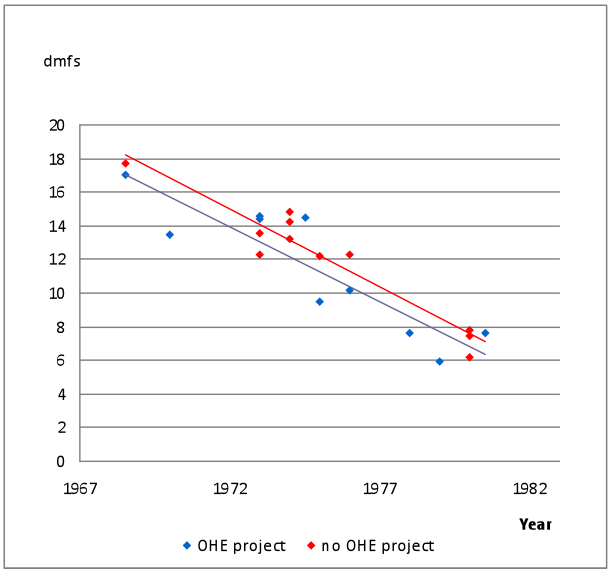
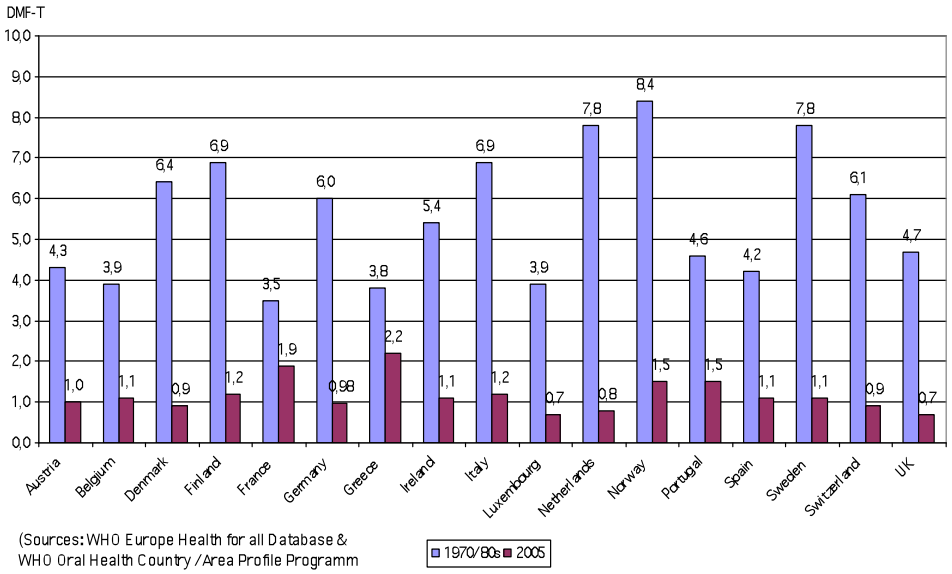


Figure 2. Caries experience of 6-year-olds in communities with OHE projects and without OHE projects in the Netherlands between 1967 and 1982[1]

3. Kay and Locker (1996)[3] in a systematic review came to the conclusion that OHE has no direct effect on caries increment.
4. In another review it was concluded that OHE fail to achieve sustainable improvements in oral health.[4]
5. In a systematic review a borderline improvement in the plaque index and gingival condition was noted after patients received professional prophylaxis and oral hygiene instruction. It was concluded that if the dental profession intends to establish improved gingival conditions in their patient populations, other more effective measures are needed.[5]

Figure 3. Decline in caries of 12-year-olds in various EU member states from the 1970/1980s up to 2005 (Greece and Switzerland included). Data from the website www.whocollab.od.mah.se



(Sources: WHO Europe Health for all Database & WHO Oral Health Country / Area Profile Programm

Although the previous paragraph on OHE and prevention activities by dental providers indicates no substantial direct effect on oral health, the conclusion that OHE had no effect on oral hygiene habits and caries experience is however an oversimplification and this will be further substantiated in the following paragraphs.

What Caused the Substantial Decline in Caries in Children in The Netherlands?

In the late 1960s, the discussion on water fluoridation was a national issue and the political decision to stop it in the early 1970s created an enormous wave of information on the benefits of having a healthy mouth and healthy teeth. The dental profession took a leading role in an advocacy process that focused on good oral hygiene and dietary aspects to keep the dentition in good condition.[6] These messages were widely distributed by the media and popular journals for housewives. Due to this mass counselling through all information channels, a critical mass of information accumulated over the years and created a national awareness that teeth and a healthy mouth are worth taking care of. This perception evolved into a healthy mouth attitude which gradually ended in a good oral health behavioural change. The 1970s was the time that children's birthdays at school were celebrated with non-sweet snacks. This was the norm in those days. Although the mean annual amount of sugar per person did not change substantially in those years[1], the general perception of the danger of sweets for children's teeth might have had impact on children's consumption pattern. The growing attention for oral hygiene and the replacement of non-fluoride toothpaste by fluoride toothpaste in the late 1970s and early 1980s have certainly helped to reduce the caries experience. What is explained here in detail for the Netherlands is not necessarily the case in other Western European countries, but Figure 3 shows a comparable decline in caries in those countries. The reason for this corresponding pattern in all these countries is explained by a process of cultural evolution, described in the meme theory (box 1).

Since the scientific literature indicates that the usual preventive activities and OHE provided in dental clinics had no clear direct relation to the caries experience and gingival condition of the clinic's patient population, the described 'meme' evolution process might provide a plausible explanation for the overall caries reduction in all Western European countries, suggesting that an indirect effect of OHE, e.g. a long-term effect of OHE has played a decisive role in the caries decline.

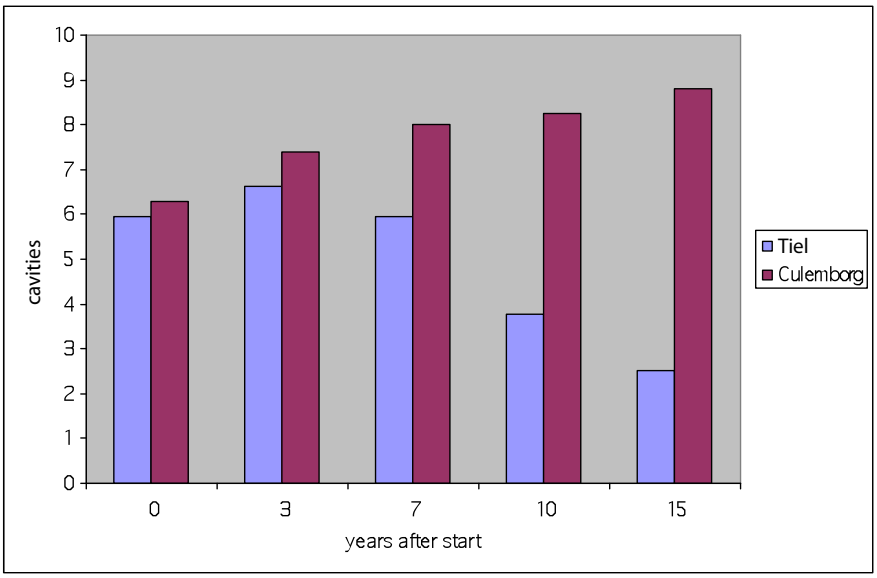


Figure 4. Mean number of proximal caries cavities of 15-year-olds in Tiel and Culemborg (control), 3, 7, 10 and 15 years after the start of fluoridation of drinking water[12]

Caries Preventive Effect of Fluoride Toothpaste

The decline in caries in Western European countries has occurred in spite of a virtually unchanged high sucrose consumption.[9] The caries decline is therefore by most scientists attributed to the widespread habit of tooth-brushing with fluoride toothpaste.[10] Those who refer to the Cochrane review on the caries preventive effect of fluoride toothpaste doubt that the 80% caries reduction presented in Figure 3 could mainly be explained by the fluoride tooth-paste effect, since the Cochrane review indicates only a 24% caries reduction.[11] However, almost all clinical trials that were summarised in the Cochrane review had a limited duration time of 2-3 years. If we look at the caries preventive effect of the Tiel-Culemborg water fluoridation study three years after its implementation, the effect was almost nil (Figure 4). It was only after 7 years that water fluoridation reached a 25% caries reduction.[12] The Tiel-Culemborg water fluoridation study indicates that 2-3-year clinical trials on fluoride are too short for the expression of fluoride's full potential. It is therefore concluded that the Cochrane review on the efficacy of fluoride toothpaste presents an underestimation of the full potential of fluoride to prevent caries. Since it is known that the action of fluoride is mainly local at the interface of biofilm and enamel[13], twice daily toothbrushing with fluoride toothpaste is actually daily self-applied fluoride application that provides sufficient fluoride for a maximal anti-caries efficacy.

The efficacy of fluoride tooth-paste is probably much stronger than generally believed.

An indirect indication for this presumption is the recently published result of a large cluster randomised trial in England on the efficacy of fluoride varnish.[14] There was no effect visible for fluoride varnish when it was used as a public health intervention to prevent caries in first permanent molars of 7- and 8-year-old children in a school setting. That finding was unexpected and at odds with the finding of the Cochrane systematic review on fluoride varnish.[15] However, the Cochrane review included older efficacy studies, which were conducted at a time when there was less exposure to fluoride through use of toothpaste.

Another indirect indication of fluoride toothpaste efficacy is the lack of any caries preventing effect of silver diamine fluoride (SDF) application, which was reported in a review paper to be more effective than fluoride varnish in pre-venting caries.[16] However, in a recent study no extra caries preventive effect from a single application of 38% SDF on the occlusal surfaces of first permanent molars of 6-8-year-old children was found in children who participated in supervised daily toothbrushing with fluoride toothpaste at school.[17]

Box 1.

Dawkins' meme effect

Richard Dawkins[7,8] introduced the word meme (the behavioural equivalent of a gene) and explained that the phenotypical effects of a gene are not necessarily limited to an organism's body but can stretch far into the environment. An animal's behaviour tends to maximise the survival of the genes for that behaviour, whether or not those genes happen to be in the body of the particular animal performing it including the body of other organisms. A termite mound is an example of a small animal with very noticeable extended phenotype.

Dawkins' meme is a notion that is analogous to Darwin's theory of biological evolution based on genes to explain the origin of species, but Dawkins extends this to any cultural entity that might be considered a replicator of a certain idea or complex of ideas. He hypothesised that people, when exposed to certain ideas, are able to evolve as copiers of information and behaviour. Because memes are not always copied perfectly, they might become refined, combined, or otherwise modified with other ideas; this results in new memes, which may themselves prove more or less efficient replicators than their predecessors, thus providing a framework for a hypothesis of cultural evolution based on memes.

With the more regular use of fluoride toothpaste, the efficacy of routinely applied fluoride application needs reconsideration. It is of interest to keep this in mind when reading the content of the non-operative caries treatment programme (NOCTP) and its clinical outcomes which is introduced in the next paragraphs.

A Turn is Needed in the Current Dental 'Cure' Approach

In the last two decades the decline in caries experience in the Netherlands did not continue.[18] The caries preventive effect of the current oral health services evidently came to a halt. A turn is needed to increase the effectiveness of dental services. The essence of the turn is to move away from curative management of caries and from routine preventive measures without a clear diagnostic indication to an emphatic guidance of the individual patient to a healthy behaviour, meaning from 'cure' to 'care' or from 'disease and treatment' to 'behaviour and health'. In some countries and in the Netherlands small-scale projects providing dental services according to this philosophy have shown evidence of its effectiveness.[19-23]

NOCTP

In this paragraph a non-operative caries treatment programme (NOCTP) is introduced, which has the capacity to prevent caries cavities in participating patients.

At the end of 1987 a public dental clinic in the municipality of Nexø in Denmark started the implementation of NOCTP. Before elaborating on the content of the programme it is interesting to see the outcome over a period of 10 years. The caries experience of 18-year-olds in Nexø and in the rest of Denmark is shown in Figure 5. In 1989, the DMFT of 18-year-olds in Nexø and the mean of their counterparts in about 200 municipality clinics in the rest of Denmark was comparable. This is expected since in the years before, the Nexø dental clinic provided dental services like in other dental clinics in Denmark, such as oral health education to groups, oral hygiene instruction and fluoride application and sealants to the majority of children. In contrast to the general slight decline in caries experience in Denmark which is ascribed to the meme effect, the caries experience of 18-year-olds in Nexø strongly decreased over the years compared to the mean caries experience in Denmark. In 1999, 12 years after the implementation of the NOCTP, the caries experience in Nexø was reduced by approximately 80%.[19,20]

Content of NOCTP

NOCTP was offered in 1987 in Nexø to all children from the time when the permanent first molars begin to emerge. Since 1992, the programme has been offered to children from the age of 8 months. The treatment programme was based on three interrelated key issues directed to the individual child's needs: 1) education of parents, children and adolescents in understanding dental caries as a local disease; 2) intensive training in home-based plaque control and 3) professional tooth cleaning according to individual requirements. Parents and children were informed about the results of the baseline examination of the relationship between plaque accumulation, dental caries and tooth eruption. In addition the parents received information about the essential role of undisturbed plaque for caries initiation and progression. The parents were involved in the training programme depending on the children's age. In the period when the children have erupting permanent first molars or second molars, the parents and children were instructed how to hold the toothbrush in bucco-lingual direction with the bristles towards the occlusal surface and moved with small rotary motions.[21] It was recommended that the parents brush children's teeth twice a day with fluoridated toothpaste (1,000-1,500 ppm F), before breakfast and at bedtime, emphasising the importance of quality rather than frequency.[21]

At the first appointment a disclosing agent was used to demonstrate the amount and localisation of dental plaque followed by supervised toothbrushing. Particular emphasis was placed on removal of plaque from occlusal surfaces. Remaining plaque was professionally removed by means of rotating tufts on the occlusal surfaces and rubber cups on the smooth surfaces. Visual diagnosis of caries is only possible after the cleaned surfaces have been dried. Figure 6 depicts caries lesions with the 4 caries scores according to the criteria presented in Table 1.

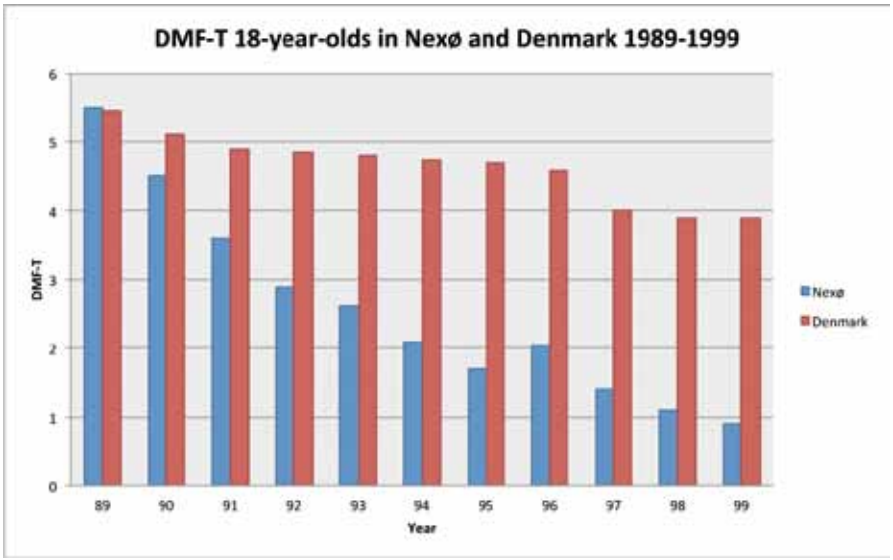


Figure 5. Caries experience of 18-year-olds in the community of Nexø with a special caries preventive programme and in other communities in Denmark without this programme between 1988 and 2000

Four variables were used to determine the timing of the next visit (Table 2): cooperation; caries in progression; eruption stage of molar teeth and caries progression on the occlusal surfaces of molars. Cooperation was assessed using the risk indicators plaque accumulation, gingival health and past caries experience. The sum of the scores was used to assess the time for recall visits: 1 month, 8 points; 2 months, 7 points; 3 months, 6 points; 4 months, 5 points; 6 months, 4 points.[21] The NOCTP considered the eruption period of permanent molars as a significant risk factor for caries. Thus no child in Nexø with erupting permanent molars had an interval longer than 4 months before the next visit and this was shortened further if the clinical examination disclosed other risk indicators (Table 2). In the worst scenario, the interval was only 1 month.[19]
At the recall visits the personal health care was evaluated and adjusted and the score system was used for reassessment of the recall intervals. A 2% NaF solution was applied only on sites with active caries lesions. It was mandatory to seal only when the fissure and/or pit had active caries at an early stage and only after several attempts using plaque control and local application of fluoride had failed to arrest progression.[19] No diet advice was given since the provider's experience[19,25] has been that it is extremely difficult to control children's consumption. Therefore, the overall focus of attention in the NOCTP has been on plaque control with fluoride toothpaste through self-care (remember the efficacy of fluoride toothpaste in the previous paragraph!). Over a period of 3-4 years, the number of visits for the NOCTP was comparable with the number of traditional biannual oral examinations and the costs were lower[19,20,23] due to a less rigid fluoride application regime and less sealants. Similar NOCTP projects have been carried out in Russia[22] and more recently in the Netherlands.[23] Although the evaluation period in these projects was limited to 3 years, the caries preventive effectiveness of NOCTP in these countries was evident.

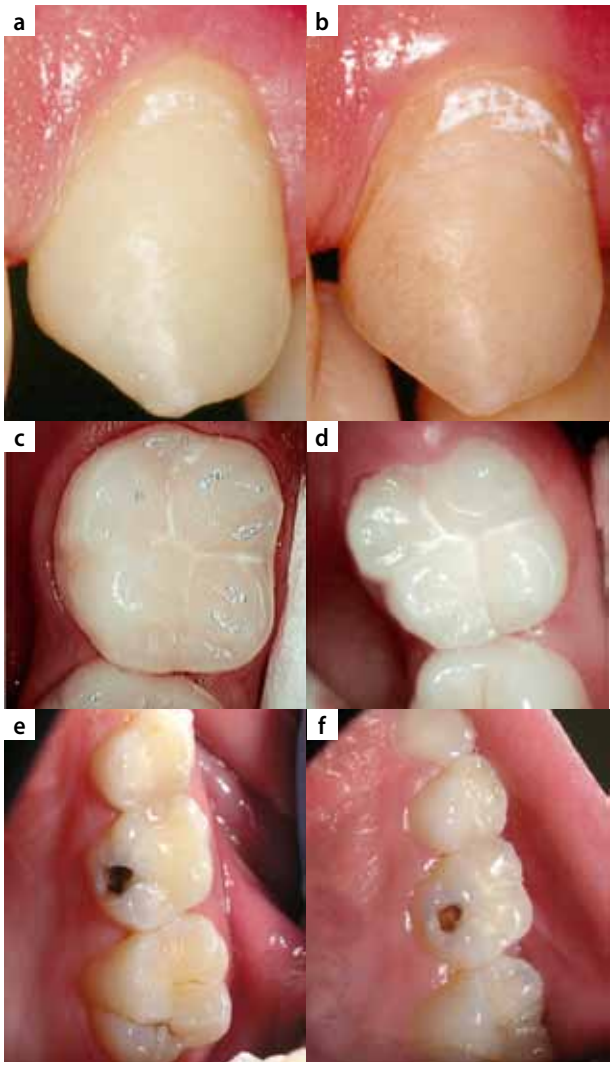


Figure 6. Caries lesions: a) inactive enamel lesion, score 1; b) inactive enamel lesion, score 1; c) active enamel lesion, score 2; d) active enamel lesion, score 2; e) inactive dentine lesion with grinded edges, score 3; f) active dentine lesion, score 4

Conclusion

In conclusion, with the NOCTP approach, a caries management programme directed to the individual patient, based on caries risk assessment and promotion of self-care on specific indication has shown to have huge potential to reduce the caries incidence and thereby improve the quality of life since these patients less frequently enter the restorative cycle[26], meaning they are safeguarded against the burden of recurrent repair of their dentition. It is high time to regard the clinical outcomes of these small-scale projects seriously and consider scaling up the programmes.

Low-Income Countries

Current situation of dental services:
The NOCTP approach is not feasible in low-income countries because there is no first-line oral health care that is accessible to all. Consequently most of the caries remains untreated because people have no access or cannot afford dental treatment. Governments of many low-income countries attempt to solve this problem by increasing the number of dentists. Syria serves as a typical example of that policy. Between 1985 to 2002, the number of dentists increased from 2,000 to 14,000, but this increase did not result in an increase of the care index (F/DMFT* 100%) of the population.[27] The reason for this failure is manifold. Dentists who are academically trained health care professionals are not keen to practice in rural areas because they cannot earn an income that matches with their self-esteem. Moreover, the provision of mainly basic treatment that the poor population may afford does not offer them a professional challenge. There are no perspectives to make a career and no good facilities for proper education of their children. So high numbers of dentists got stuck in the cities where there is insufficient demand. Consequently they have small part-time jobs in dental practice and complement their income with all kinds of other activities. The absence of proper dental care in rural areas and for the poor is addressed by some governments by implementing training facilities for dental auxiliaries. But in many countries the existing dental profession opposes

Table 1. Criteria for caries diagnosis (adapted from Nyvad et al 1999[24])

Score	Category	Criteria	Score	Category	Criteria
0	Sound	Normal enamel translucency and texture (slight staining allowed in otherwise sound enamel).			
1	Inactive enamel caries	Surface of enamel is whitish, brownish or black. Enamel may be shiny and feels hard and smooth when the tip of the probe is moved gently across the surface. No clinically detectable loss of substance. Smooth surface: caries lesion typically located at some distance from gingival margin Fissure/pit: Intact morphology; caries extending along the walls of the fissure.	2	Active enamel caries	Surface of enamel is whitish/ yellowish opaque with loss of luster, feels rough when the tip of probe is moved gently across the surface, generally covered with plaque. No clinically detectable loss of substance. Smooth surface: caries lesion typically located close to gingival margin. Fissure/pit: Intact morphology; caries extending along the walls of the fissure.
3	Inactive dentine caries	Cavity easily visible with the naked eye; surface of cavity may be shiny and feels hard on probing with gently pressure. Caries into dentine but nu pulpal involvement.	4	Active dentine caries	Cavity easily visible with the naked eye; surface of cavity feels soft or leathery on gentle probing. There may or may not be pulpal involvement. If dentine is not visible but a blue grey sometimes whitish-yellow shimmering is indicative for 'hidden caries' in dentine.

Table 2. Criteria used for individual assessment of recall visits

	Score values	
	1	2
Cooperation of the parents	adequate	inadequate
Active lesions within the dentition	no	yes
Stage of eruption of permanent first molars*	full occlusion	partly erupted
Occlusal surfaces of permanent first molars*	no or arrested caries	active lesions

* When there are no erupting molars, only the cooperation and caries in progression are used to assess the recall interval

such policies.[28] In some low-income countries where appropriate legislation allows dental auxiliaries, initiatives to locate them in rural areas turned out to be disappointing if their curriculum comprised of training on basic restorative care. With that package of skills, auxiliaries' self-esteem approaches that of dentists and their behaviour is accordingly. They stay in the cities and become competitors with the existing dentists in the same domain.

Dental Volunteering Projects

Lack of access to affordable dental care in deprived and rural areas motivates dentists from rich countries to volunteer in resource-poor communities and to render dental services. By doing so they address a problem that is neglected by the local dental profession who meanwhile advertise on internet to net rich tourists in their dental clinics. Since the traditional model of dental volunteering focuses on short-term treatment procedures, it is to be questioned what the long-term benefits to the host population will be and whether there might be negative effects of dental volunteer work. There is an increasingly critical debate about the appropriateness of the western treatment-oriented approach for low-income counties.[29-35]
In the Philippines one dental volunteer project evolved around the change of the century from the previous largely short-term approach to a more long-term and prevention-

a
c

b
d

e

f

oriented approach. A Filipino dental team financed by a volunteer organisation offered daily treatment during 5 years in elementary public schools within the framework of the school dental service of the Department of Education (DepEd). The dental care offered was extraction of decayed teeth, restorative care using ART with amalgam[36], oral health education, application of fluoride varnish and supervised toothbrushing sessions.

Success and Failure of this 5-year Project

The evaluation of the programme showed a dramatic reduction in the number of children with odontogenic infections as a result of treatment. Children experienced less toothache and school absenteeism declined as compared to schools that did not participate in the programme. However, while quality of life had improved, the caries experience was comparable in the project and control schools.[37] The dental team was completely overburdened by the high treatment needs and tried to provide as much traditional clinical treatment as possible while neglecting the preventive aspects. These observations were in line with published literature confirming that a traditional mainly restorative approach does not result in a caries decline.[38]

The described set-up created unforeseen tensions between the sponsored Filipino dental team and their counterparts in the regular school dental service. This sponsored team being well paid, equipped and trained for in-field dental services led to a devaluation of the status of the regular school dentists who could not offer treatment due to lack of materials, equipment and appropriate training for services on the spot and these sentiments undermined local efforts to strengthen the local school dental service. The schools that received dental services from the sponsored Filipino dental team were not able to sustain the services after the end of the programme, since they did not have the resources to cover the costs, which were disproportionally high because of the focus on treatment, a situation also found elsewhere.[39] This approach to improve oral health of Filipino school children was simply not realistic, even though it was organised and carried out in accordance with the strategy and principles of the WHO-endorsed Basic Package of Oral Care (BPOC).[40] The disappointing outcomes of the foreign sponsored programme led to a reconsideration regarding the exiting school health programme carried out by DepEd.

School Dental Services in the Philippines

The Philippine Health Act of 1911 requires DepEd to conduct annual physical examinations of school children. Currently, the 700 school dentists and 700 dental aides are tasked to examine annually all 12 million public elementary school children. This school dental workforce is unable to provide effective interventions due to lack of supplies and clear strategies. Their activities are therefore restricted to providing screening and oral health education in accordance with WHO recommendations.[41] The rationale for mass dental screening is early detection of disease and consequently treatment. Since the school dental service has no treatment resources, children are referred to private practitioners for care, a system that does not work even in high-income countries.[42] Mass dental screening without realistic options for care is even considered unethical and available epidemiological data indicate no impact of annual dental screening on the Care Index of Filipino school children.[43]

Figure 7. Images of the Fit for School programme
a) receiving de-worming tablet
b) toothbrush holder
c) receiving toothpaste
d) wash facility
e) toothbrushing
f) handwashing

Time for a Change

The current situation awakened us to the fact that sustainable change in oral health in the Philippines would only be possible through a preventive approach directed at the promotion of self-care, toothbrushing with fluoride toothpaste.[44-46] A strong advocacy process that reaches the masses was needed to create the 'meme' effect.[7,8] Schools as organisational units with sufficient manpower where all children can be reached was a focus point for advocacy on oral health. An innovative strategy was required and it was decided to initiate a daily school-based toothbrushing programme with fluoride toothpaste in elementary schools, based on the international resolutions. But to obtain support for such a venture the mindset of politicians and decision makers had to be triggered, since the extent of oral health problems among children was not recognised as being important. The available epidemiological data on oral health were restricted to DMFT values[47] but these data do not represent the real burden of caries[48] since they provide no insight in the consequences of all caries that remains untreated.

Providing Visibility to Health Problems Related to Dental Caries

It was therefore decided to conduct a national oral health survey (NOHS) in 2006 to collect data on the prevalence and magnitude of caries and to provide visibility to the problems relating to untreated dental caries in the broader context of general health, mainly by introducing a new caries index, the PUFA index.[49] The PUFA data representing the consequences of untreated caries leading to chronic odontogenic infections, pain, school absenteeism and negative effects on physical development of the school children[43,50] were offered to a broader non-medical audience and appeared to have stronger impact on the mind of health decision makers than the traditional dental survey data (DMFT). The findings of the NOHS created the intended wake-up call to all stakeholders and provided the basis for an intensive advocacy process for an integrated school health programme addressing oral health and other priority diseases of Filipino children.

Box 2.

Dental caries in the Philippines

The National Oral Health Survey (NOHS)[43] showed that 97% of the grade I children (6 ± 1 year) and 82% of the grade VI children (12 ± 1 year) suffered from tooth decay. These grade I / grade VI children had on average 9 / 3 decayed teeth; 40% / 41% of decayed teeth had progressed into decay with pulpal involvement.[43] The prevalence of school children with pulpally involved teeth (odontogenic infections) in grade I and VI was 85% and 56%, respectively.[43] Odontogenic infections in grade VI school children are associated with low BMI.[50] Chronic inflammation from odontogenic infection may affect metabolic pathways leading to anaemia.[57] 20% of the grade I children and 16% of the grade VI children reported toothache at the time of examination for the National Oral Health Survey. Toothache impacts food intake because eating is painful.[58] It also impacts sleep and quality of life.[59] Toothache is the main reason for school absenteeism in the Philippines.[60]

Box 3.

Soil-transmitted helminth infections in the Philippines

The prevalence of soil-transmitted helminth (STH) infection in pre-school children in the Philippines is 66%,[61] while the results of a recently concluded sentinel surveillance of STH infections using school children showed an infection rate of 54%.[62] STH infections impair healthy nutrition[63] through reduced food intake due to poor appetite and malabsorption.[64] As a result, untreated STH infected children have higher levels of stunting[65], lower body mass index, anaemia and undernourishment.[61,66,67] The impaired metabolic functions trigger sleeplessness and negatively impact children's motoric development and cognitive performance.[68] STH infections early in life may therefore affect cognitive indicators which are measured later in life.[69]

A school-based approach is the best way to reach the STH-infected child population in the most cost-effective and systematic manner using the mass drug administration approach recommended by the WHO, without prior screening of children.[70] This approach is recommended by the Integrated Helminth Control Programme that specifies a biannual de-worming every January and July in the school setting.[71] Anti-helminthic drugs can be included in large-scale public health interventions due to their safety and simple administration.[72]

The objective of regular de-worming in endemic STH areas is not to cure, because children will be re-infected after a short time. The intention of biannual de-worming is to control the level of infection and keep the worm burden of infected individuals below the threshold that causes morbidity.[73]

Box 4.

Common childhood infections in the Philippines

Respiratory tract infection, diarrhoea and influenza are the three leading causes of morbidity for all age groups and are among the top three mortality causes (82,000 per year) for children below 10 years of age.[74]

Handwashing with soap is the single most effective intervention to prevent infectious diseases as it interrupts the transmission of diseases from one infected person to another. The UN General Assembly designated 2008 the International Year of Sanitation, and has declared 15 October as Global Handwashing Day to raise awareness of the importance of handwashing with soap and as a call for generally improved hygiene practices. Global Handwashing Day is a campaign to motivate and mobilise millions around the world to wash their hands with soap.[75] The theme for the first Global Handwashing Day was 'Focus on School Children'. The Philippines were among the member states pledging to mobilise school children to wash their hands with soap.

Advocacy for a Sustainable Change Towards Prevention

Advocacy for (oral) health is action taken on behalf of individuals and/or communities to overcome structural barriers to the achievement of (oral) health[51,52] Authorities working in the health and education sector seem to have a significant gap in their knowledge about the potential of school health programmes on health and development of children. The health and education administration are often trapped in rigid bureaucracy, [53] and the lack of clear mandates or shared visions are barriers to intersectoral collaboration.[54] Integration of oral health into the context of general health promotion was an essential part of the advocacy process. It involved an intensive dialogue with various partners and stakeholders on the lack of oral hygiene which was placed in the broader framework of

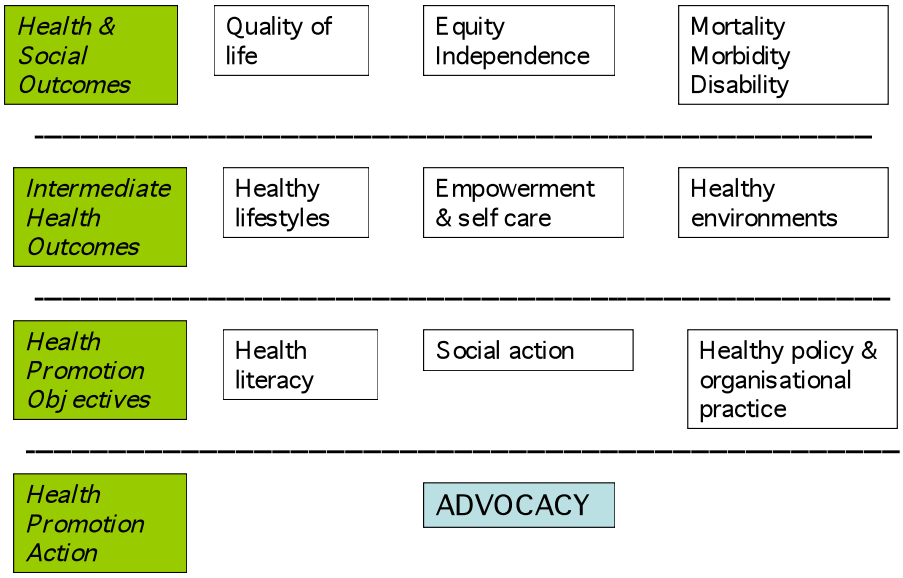


Figure 8. Health promotion evaluation outcome model of Nutbeam[52] (modified)

hygiene-deficiency as the major aetiological factor of many childhood diseases. This approach was instrumental in facilitating political action in the Philippines.

It is important in advocacy to realise, understand and appreciate each stakeholder's particular motives, interests and incentives (e.g. political mileage for politicians, career path promotion for educational personnel, consumables provided for free for children's parents) to support and participate in school health programmes. Using the public support and momentum created through the alarming findings of the NOHS, which was further increased by the growing awareness of the need for handwashing and improved hygiene created through the H1N1 epidemic, the authorities (DepEd) realised that a focus of school health activities on key hygiene-related diseases would promise better results than the multitude of separate, vertical programmes that were previously part of policy. The advocacy process was based on presenting understandable data of children's health problems combined with clear, simple and effective strategies for improvement. As a consequence and through a clear prioritisation process, three simple and evidence-based health interventions were selected for broad-scale implementation, the Essential Health Care Programme (EHCP) for public elementary schools. After a successful demonstration project in one province[55] (Figure 7), the EHCP, then called 'Fit for School' was declared national flagship programme.

Essential Health Care Programme (EHCP) – Fit for School

This school programme was based on international policy recommendations, such as the UNESCO-led FRESH approach[56] and was in line with national priority policies to address the prevalent and high-impact diseases of children in the Philippines, namely:

- dental caries (box 2);
- soil-transmitted helminth (STH) infections (box 3);
- common childhood diseases (box 4).

The programme integrates and institutionalises three highly effective and evidence-based interventions:

- Daily supervised toothbrushing with fluoride toothpaste;
- Biannual mass de-worming by supervised ingestion of an albendazole tablet;
- Daily supervised handwashing with soap.

The programme required advocacy and training of school administrators and local politicians to transform schools into healthier places. Parents and local communities were involved in the construction of simple, low-cost washing facilities and toothbrush holders. The programme was implemented through the education sector by teachers, and the local governments financed the required programme consumables. The school health programme was set up in a very smooth organised way that enables the school children to practice daily school health activities autonomously under teacher's supervision. For that purpose a toothpaste dispenser (box 5) was introduced and operated by a higher grade pupil.

The EHCP represents an important and fundamental shift from the concept of traditional school OHE programmes to schools that provide a platform for a healthy environment and facilitate daily health behavioural activities unaccompanied by conscious reflections as stimuli for sustained behavioural change.[79] This approach is based on the principles of the Ottawa Charter for Health Promotion[80] that looks at health as being an integrated part of daily routine habits in a healthy environment. Furthermore, schools are not only educational facilities, but also centres of community life and can play an important leadership role in changing living conditions of the communities surrounding them. Involvement of parents and communities in improving washing and other facilities to allow a smooth running programme that can be managed by the children themselves and a sustainable government financing (less than one US $ per child per year) are essential elements of EHCP.

The EHCP in an Outcome Model for Health Promotion

The aim of health promotion is to increase the control of individuals and communities over determinants of health. Advocacy for health promotion means a plea for a combination of complementary strategies to change both the conditions of living and the ways of living to achieve health and well-being. The objectives of health promotion are to stimulate and create 1) health literacy, 2) social action and 3) healthy public policy and organisational practice. These complementary strategies of health promotion are also included in the EHCP programme; all of them require specific types of research at different levels of evaluation. The model shown in Figure 8 presents various possible outcomes and their evaluation dimensions according to Nutbeam's model.[52]

Building on this model of programme evaluation, the EHCP has had a positive immediate impact on the first level evaluation: healthy policy, organisational practice and social action. On the second evaluation level EHCP had an evident impact on healthy environments, empowerment and self-care for more than 2.5 million school children who are now participating.

Although the three different components of the EHCP have proven efficacy in separate clinical trials: handwashing[81,82], biannual de-worming[70,83,84] and toothbrushing with fluoride toothpaste[17,85,86], health outcome research which is now in progress aims to assess the clinical health outcomes of the EHCP when implemented on a large scale. It has been argued that randomised controlled trials (RTCs) on clinical interventions are unable to address questions of effectiveness and efficiency in health care systems[87] because of the problem of applicability and transferability.[88] Various factors inside and outside the health sector such as adherence to guidelines, limited resources and improperly trained health personnel may compromise its final effectiveness, resulting in lower efficiency than expected on the basis of RCTs. The more long-term outcome dimensions, such as health status improvements and better quality of life are part of the health outcome study which is currently in progress. The one-year evaluation results on health outcomes, despite the short observation period showed positive trends in less moderate to heavy STH infections, less low body mass index and less caries increment.[89]

Epilogue

Today, a registered NGO in the Philippines, Fit for School Inc., which was established with support of the German Development Cooperation (GIZ) has become a strong stakeholder in the regional health and education sectors and is supporting the Philippine government in the implementation of the ECHP programme. The programme now involves more than 2.5 million children and provides an example for many other countries.

Since 2011 the German Ministry of Economic and Development has commissioned GIZ to partner with the South East Asian Ministries of Education Organization (SEAMEO) to support the governments of Cambodia, Indonesia and Lao PDR in establishing similar programmes in their countries. The acceptance and the extension of the Fit for School approach in other countries in the Southeast Asian Region has been greatly facilitated by international awards and a number of international publications on school health that have strengthened the advocacy process for the international arena.[90-95] Fit for School has established collaborations among GIZ, AUSAID and UNICEF as major international development partners which is evidence for the potential of the Fit for School programme to revitalise school health activities in other countries as an effective vehicle to bring public health back to a currently underrated public place – the school. ■

Wim van Palenstein Helderman, emeritus professor, University of Dar es Salaam, Tanzania and University of Nijmegen, The Netherlands

References available on the ICD European Section website: http://www.icd-europe.com/

Box 5.

Fluoride toothpaste in a 500-ml dispenser

A local toothpaste producer was willing to provide sufficient liquid fluoride toothpaste for use in a dispenser (Figure 8d). Around that time a paper was published indicating that many of the fluoride toothpastes in low and middle-income countries did not contain sufficient free available fluoride.[76] The efficacy of the toothpaste was tested and its efficacy enhanced by changing the formula after suggestions from the WHO Collaborating Centre in Nijmegen, the Netherlands. Nevertheless, at its formal introduction the use of this locally produced toothpaste was opposed by the DepEd with the argument: 'a local product has low quality' and this view is in line with a common perception in low-income countries: 'local products can't be good'. When the labelling was adjusted with information that the product had been tested for quality by the WHO Collaborating Centre in Nijmegen, it was accepted by local authorities. Toothpaste was exclusively packed in a 500-ml dispenser for use in Fit for School. The International Standard Organisation (ISO) charged the local producer for violating the guidelines that a single unit package shall not exceed 300 mg of fluoride.[77] Through help and intervention by the World Dental Association (FDI) the new ISO guidelines now states: The requirement of 300 mg fluoride in a single unit package does not apply for use under supervision such as school brushing programmes.[78]

Are We Wasting Opportunity?

I was lucky enough to be elected as a Fellow of the ICD in 2009. I felt extremely proud to be chosen as part of an illustrious college, especially as I am a general practitioner rather than a full-time highflying academic. I accepted the invitation immediately and flew out to Athens with my wife for the induction.

It was an extremely memorable weekend spending time with a select group of European dental colleagues, all of whom were charming and spoke English! The induction ceremony in Athens itself was magical, in the most exquisite of settings, under a clear star-filled sky. The venues for the other parts of the meeting were breathtaking and I came back singing the praises of the ICD.

Here in the UK we have a large number of ICD members, although most of them are at the latter end of their careers. However, I was excited at the prospect of stimulating educational and social meetings with a chance to bond with UK ICD members that are well known within the profession for their outstanding academic and clinical skills.

So, now that the pomp and circumstance are over, what does the ICD mean to me as a regular member? Since my induction, there have been no meetings in the UK to attend, other than the annual dinner and the European meeting which I have been to twice. There are no national scientific meetings; there is no communication throughout the year other than the odd email reminding me that my sub is due and the annual dinner is coming up. The mailings from the ICD seem rather distant and tend to emphasise the American Section rather than the European Section of the ICD.

Are we wasting opportunity – to have an organisation with so much underused UK talent? I am the chairman of a large charitable community that has over 1,000 members and I understand that an organisation is only as good as its members. However, this potential can only be realised when members' talents are utilised, programmes provided that engage and bond the community, and where membership and council are meaningfully connected. I suggest we have room for improvement.

The standard come-back answer is, 'there are lots of things going on if you care to find out'. In my experience, people

Our potential can only be realised when members' talents are utilised, and programmes provided that engage and bond the community

are socially busier now than ever before and need to be encouraged to come to events, and the events need to be attractive and engaging. Young UK Fellows are inducted and tend not to get further involved. Why not? Our members need to be provided for, and our Council and Regents are certainly up to the task. Indeed, organisations that don't engage their membership will always ultimately wither and die. Surely, it will not be so in the District of England, Scotland and Wales.

Jason Burns

Jason Burns is a Fellow in the England, Scotland and Wales District

The editor welcomes your response to this column and invites you to submit your own contribution.

Aspiring High in the Low Lands

Being introduced to NL-based ICD Fellow Frans Nugteren is like meeting an old friend – instant familiarity, a reassuring smile, with a light in his eyes that reflects years of diligent dedication to his craft and service, the immense fulfilment he continues to reap from it every day, and that at 63 he is still far from retirement. The story of a man helping people get unstuck in the low lands of personal adversity.

Merryn Jongkees

Stumbling upon the Path to Humanitarian Dentistry

The Dutch health and dental care system ranks among the best in the world. Nevertheless, here also, people's lives take unfortunate turns, plunging them into disarray and poverty, all too often with serious physical and dental neglect. Frans Nugteren encountered such tragedies up close and personal when as a starting dentist he did a locum for a classmate's father's dental practice in one of the poorest sections of the Dutch city of The Hague. It changed his life.

'This dentist was a very social man. People could walk into his office without appointment till 6 pm, and he would help them all, even if it meant working till 10 or 11 pm. I continued his work as best I could, treating the city's minimum wage earners and homeless, and ended up staying for 20 years. It was this experience that irrevocably put me on the path of humanitarian and geriatric dentistry.' His unique alloy of idealism and hands-on practicality became a trademark. Smiling he recalls, 'An old lady had to move to a nursing home, but her dental plate wasn't finished yet. So I took some tools and a burner to her room and simply finished it there …' Continuing on a more serious note, 'Geriatric dentistry is actually a neglected field in our profession; we need many more dentists there, and our elderly deserve so much more attention than they're getting now.'

Berlin Case Study

He continued to treat geriatric and mentally handicapped patients in a nursing home and extremely fearful children and Down patients in addition to his regular patients in his own practice, but 10 years ago the scope broadened even further to humanitarian dentistry: 'A friend of mine was the head of our municipal health service, and closely involved with social support projects for IV drug users and the homeless. He was telephoned by the chairman of the

Geriatric dentistry is actually a neglected field

city's social executive, who told of her visit to Berlin, where they have a huge homeless problem but are seeing good success with a free dental clinic. She suggested we start a similar practice in The Hague. So he contacted me; I was in for it, we found a location in the municipal Westeinde hospital, worked out the financial side with the city and insurers, and we were in business for one day a week. We still are, now even in an entirely renovated hospital section.'

'Our team consists of 4 dentists: ICD member Ransom Altman, two young new colleagues, Tim Strik and Kees Pameyer, and myself. Our patient population is a group of about 2,000 people in The Hague, of whom we treat about 300-400 people a year. They have social insurance provided by the city. Their problems and backgrounds are diverse, but in many cases there will be a divorce, financial problems, alcohol abuse sets in, they lose their job, cannot pay for a dentist (or even toothpaste when addiction is involved) … it can go fast. These people apply for help through a specialised city agency and are put on a rehabilitation programme to help them develop better life habits, be dependable and presentable, and stand a chance of success when they apply for a job (nothing gets people turned down quicker than black stubs for teeth). Once they are registered, they are called up for treatment.'

Emotional Involvement

He speaks with visible passion about caring for people's teeth to improve their lives. 'I cannot stay detached when working on homeless people's teeth. We always start by talking: how did it get this far? What happened? I always feel very empathic, and also very lucky. Lucky to be where I am, while they had the misfortune to end up where they are now. Homeless people are relieved when you listen to them. Nobody ever listens to them. Their thankfulness after successful treatment, sometimes expressed in sobbing around my neck, is deeply gratifying.'

City Contract

Obviously, humanitarian dentistry also requires funding. Frans explains, 'We are happy to have a new 5-year contract with the city of The Hague, which enables our patient population – which insurers define as a 'highly specific patient group in Dutch society' – to receive dental care without financial burdens to them or their families. The contract allows us dentists to earn a very modest fee and cover our costs.'

'But there are worries also. We have a recession here in the Netherlands, which hits the weakest in society the hardest. If financial problems of certain groups are not addressed, homelessness will increase, with higher demand for dental care. We hope the recession passes, before demand exceeds our capacity to deliver.'

Measuring Outcome

Asked if he keeps track of his project's results, he says, 'I did try for a while, but it's actually not very easy. The city developed a questionnaire once that people could complete anonymously, asking their opinion about the ▶

treatment, facility, staff, etc. We came out very well, fortunately, scoring 8+ out of 10 (see box for details). But most importantly, we see people come back. Continuity is a good success parameter.'

I cannot stay detached when working on homeless people's teeth

Advice for ICD Members?

'If you feel ambitions to start a similar practice, I applaud you. It's a decision you will not regret, I assure you. Some words of advice:

- Always form a group; study your territory and prepare thoroughly
- Especially for the homeless: do not use your own office, but find neutral ground like a hospital
- Visit others to see how they do it
- Keep it simple - no high tech. Basic conservative dentistry works perfectly for this group
- Limit yourself to getting them pain-free and presentable

Should ICD Fund Similar Projects?

'The training of dentists is extremely important and should certainly include social dentistry: no fancy stuff, simply removing pain, also in those less fortunate. We must instil it in them. We have social dentistry programmes now in two Dutch cities, where you do a training period in a practice for the homeless. They also collect and use dentistry materials for use and training in e.g. Eastern Europe, where there is still such a great shortage. Training is the key.'

Nothing Like It

Frans Nugteren describes his humanitarian dentistry achievements with modesty and gratitude. 'It is a wonderful thing to help people win back a sense of perspective and self-esteem. This is not something you do for the money; you must be a bit of an idealist, but it has rich rewards: getting out among different people, other layers of society, using diverse skills, creativity to set up an ambitious treatment plan with very limited means, quickly fixing up an inelegant tooth without them noticing it and then showing them in the mirror, things like that. And success breeds success: after they overcome their fears and inhibitions, see the result and feel how happy it makes them, I've 'got them' – in my grasp, so to speak. And I think: you know, it looks as if they're actually going to make it … there's nothing like it.'

Measuring Outcome in Humanitarian Dentistry – 2011 Client Satisfaction Survey, The Hague, Netherlands

The city of The Hague measured client satisfaction among users of the city-sponsored humanitarian dentistry practice for the homeless.

Method: A questionnaire was administered in 4Q2011 and completed by 22 respondents. 18% came for their first treatment, 82% for follow-up. Almost all respondents had been made aware of the practice by a medical professional.

Results: All respondents were satisfied about how they were received in the practice. Dental treatment was not unpleasant for 73%; a little unpleasant for 18%; and unpleasant for 9.1%. 73% indicated the dentist or assistant had provided information prior to treatment, 46% on anticipated results, 46% on general dental care, and 5% on dental hygiene following treatment (respondents could mark more than one answer). All respondents considered the information understandable and sufficient. Follow-up arrangements were also clear.

Mean dental care score was 8.6 (scale 1 – 10, range 7 – 10). Respondents indicated the score was based on pleasant personal interaction, dentist's and assistant's kindness, the way they were set at ease and that client interests were put first.

Suggestions included: continue on this path, shorten waiting time, and brighten up the waiting room.

Ireland

The Irish District held its annual Winter Meeting in January as opposed to the traditional pre-Christmas timing. The Winter Meeting and Dinner were held in the very popular Royal Marine Hotel, Dun Laoghaire on 14 January 2012 and an excellent gathering of nearly 40 Fellows and partners attended.

The small but enthusiastic Irish gathering in Munich greatly enjoyed the meeting and no effort was spared by hosts Wolfgang and Minu Bockelbrink to attend to every last detail required to make the occasion a truly memorable one. Their hospitality was exceptional. The scientific programme was also of the highest quality with several of the speakers covering areas of dentistry where many new and cutting-edge modalities were detailed. This year also, the humanitarian side of the College was given significant prominence and it was very impressive indeed to see the efforts and achievements of some of our colleagues in this area. The social gatherings in the BMW museum and the beergarden were also magnificent occasions.

Unfortunately the Irish District lost an esteemed Fellow, Seamus Keating during the year under the most bizarre and tragic of circumstances. He was a keen cyclist and while out riding his bike, the fork broke and he fell and fractured his neck. He survived but was paralysed from the neck down and spent several months in hospital. However, on Christmas Day he suffered an embolism and passed away. May he rest in peace.

The Irish District had one inductee this year at the Munich meeting: Professor Leo Stassen, a Dublin graduate from 1977, who is a maxillofacial surgeon and has given superb service over the years to both public and profession.

Finally, thanks are also due to Joe Lemasney for the great work he continues to do in the International Arena, and also to Cecil Linehan for the service she continues to give to ICD.

Tom Feeney, Regent ■

Ethna Lemasney and Gervaise McAlister

David McCaughey, Mary Ormsby and Frank Ormsby

England, Scotland, Wales

The Section for England, Scotland and Wales had their annual dinner at the Royal Thames Yacht Club on Friday 16 November 2012. Twenty people attended and everyone enjoyed good food, wine, and fellowship. The Regent, Shelagh Farrell, encouraged Fellows to attend the forthcoming meeting in Copenhagen in 2013 and said that our Section would probably have nine new inductees. Unfortunately last year there was only one inductee, because four prospective Fellows were unable to attend – hence the increase for 2013. The District has 59 Active Fellows, 2 Masters and 4 Life Members.

Shelagh Farrell, Regent ■

Shelagh Farrell, flanked by Bruce Mayhew, Past Regent, on her left; on her right is Vice-Regent Peter Floyd.

Switzerland

Nicole Vallotton is a Life Member of the College since beginning of 2013.

Nicole Vallotton was born in France and graduated in Paris. Then she left for the US and graduated as DDS in North Western University, Chicago from 1963.

Returning from the US, Nicole joined the teaching staff of Ecole Garancière in Paris. Then she opened her own practice in Versailles and practised for ten years before she met her husband, Charles Vallotton who was practising in Lausanne, Switzerland.

She wanted to practise with Charles but the Swiss regulations required her to obtain additional university training. That's the reason why she got her third dental degree at Geneva Dental School in 1981. Three diplomas, it's nearly a record!

Nicole and her husband Charles have contributed significantly to the College. She joined the College in 1967, her name was Nicole Thibault and she was presented by the French regent.

She married Charles in 1977 and became Nicole Vallotton. Then she joined the Swiss District, the Swiss Regent being her husband who served in this position from 1965 to 1990.

Nicole became the new Swiss Regent from 1990 to 2003. During all these years, she and her husband participated in nearly all the Annual Meetings. It gave them a very good opportunity to share with all their friends in the College good moments, excellent scientific programmes and to visit marvellous places.

Charles Vallotton is already a College Life Member. With Nicole, they have been in charge of the ICD in the Swiss District from 1965 to 2003, which undoubtedly is a record in the European Section.

In the name of all the Fellows from the Regent Swiss District, thank you Nicole and Charles.

Christian Robin, Regent ■

Italy

The Annual Meeting of the Italian Section of the International College of Dentists was held at Villa Pomela, Novi Ligure, Italy.

The meeting was opened by Italian Regent Corrado Paganelli and Giorgio Blasi, past European President, who welcomed attendees, reported back to the Fellows on the Congress of the European Section held in June 2012 in Monaco of Bavaria, and gave the official welcome to the new Fellows.

Then Vice-Regent Mauro Labanca introduced the distinguished speakers who contributed to the day programme.

First speaker was Ernesto D'Ajola, who gave a detailed exposition about his research on bone reconstruction by presenting fresh frozen technology and its applications. He was followed by Giuseppe Cozzani, who explained the condyle-disc-fossa relationship.

After lunch and enjoying the pleasant atmosphere of the wonderful and relaxing garden of Villa Pomela, the meeting was resumed with the presentations of the three candidates for the ICD. As they introduced themselves, the candidates stated their intentions and expressed their enthusiasm for the College.

The scientific programme continued with Paolo Brunamonti, who lectured on the prevention and management of septic complications in oral surgery, Luigi Checchi who spoke on aesthetic dental treatment in the management of periodontal recessions, and last but not least Dario Castellani, who discussed the dark side of prosthetic restorations and their failures.

The day was closed with the traditional black tie dinner at Villa Pomela, where participants continued their friendly professional conversations about the topics presented in the meeting.

The District has 48 active Fellows and 7 Life Members.

Mauro Labanca, Vice-Regent ■

Looking for the ICD Key?

Israel, Malta, Baltic States

The College was well represented by District 9 Fellows from Hebrew University Faculty of Dental Medicine at the recent meeting of the Israeli Society of Oral Medicine. Stuart Fischman, Visiting Professor, chaired the session on "Periodontal Considerations in Cancer Patients" and "Oral Malignancies Mimicking Common Oral Conditions" and Avi Zinni, Assistant Professor, was co-author of two presentations: "Epidemiological and Clinical Features of Oral Cavity Cancer among Young Patients in Israel" and "Oral & Pharyngeal Verrucous Carcinoma – Epidemiological and Clinical Features Over Four Decades".

We congratulate our Regent and Past European Section Editor S. Dov Sydney for having been appointed to the new position of Director of Communications for the College at Large. He will be responsible for expanding and enhancing all aspects of ICD global communications.

District 9 continues with its popular Student Prize Award in both the Jerusalem and Tel Aviv dental schools. In addition, the prestigious IADR-ICD award which is supported by the Philip Dear Foundation, celebrated its fourth year honouring outstanding student scientists. This year the award was presented during the IADR meeting in Helsinki and continued to bring positive attention to the values and objectives of the ICD.

Our District Fellows were also in attendance as representatives of the Latvian Dental Association, Associate Professors Egita Senakola and Anda Brinkmane, and from the Lithuanian Dental Chamber, Odontologist Erminija Guzaitiene, during the Baltic Dental Meeting, which took place 21-22 September 2012 in Palanga, Lithuania to develop a common evidence-based strategy for oral health promotion in three Baltic states. The ICD Fellows will join working groups to deal with topical oral health care issues in three Baltic States. Baltic dental meetings are annual, next year's meeting will take place in Estonia.

Dov Sydney, Regent ■

Doron Aframian, presents the IADR-ICD award to Hadar Zigdo-Giladi in Helsinki.

Germany

In June 2012, the German Fellows were honoured to host the European Fellows at the 57th Annual Meeting in Munich. We had seven inductees!

Daniel Edelhoff, Rainer Jordan, Christoph Kaaden and Jan Künisch, held excellent lectures at the scientific day. Clara Hansson, Jörg Schröder and Wolf Dieterseeher completed the inductees.

The German Fellows came together for a local meeting in Berlin. Our Fellow and inductee, Jörg Schröder had suggested a very nice and new hotel in Berlin, close to the famous Ku'damm. What an exciting city!

There are so many new things to see, whenever you come to Berlin.

On Friday evening, 2 November, we met in an old, typical Berlin restaurant and had a great time.

Saturday 3 November was reserved for three outstanding lectures:

Dana Weigel talked about difficult cases in aesthetic dentistry. she found a group of researchers, with the genetic department of the Charité, to learn more about Amelogenesis imperfecta.

I will be inducted in Copenhagen 2013.

Holger Janssen is a specialist for periodontics. He showed different cases of deep periodontal pockets. He gave clear advice on how to treat them and what results to expect.

Janssen will be inducted in 2013 as well.

Jörg Schröder is a specialist for endodontology and was inducted in Munich 2012. He visited us in Berlin and set up a wonderful programme. Thank you so much Jörg! He illustrated some cases of saving seemingly hopelessly lost teeth.

The German Fellows are looking forward to the 58th Annual Meeting in Copenhagen.

The District has 49 Active Fellows, 5 Life Members and 1 Master.

Wolgang Bockelbrink, Past President ■

Benelux

The Benelux District regional meeting took place in The Hague, Netherlands on Thursday 15 November 2012. Before the meeting, 18 Fellows took this opportunity to immerse themselves in Dutch cultural history by visiting The Hague Gemeentemuseum (Municipal Museum), renowned for its collection of modern and industrial art, fashion and musical instruments. The museum currently exhibits masterpieces from the 17th and 18th century from the famous Mauritshuis museum, which our excellent guide highlighted in historical perspective. The paintings included View of Delft by Johannes Vermeer, The Bull by Paulus Potter, and The Anatomy Lesson of Dr. Nicolaes Tulp by Rembrandt van Rijn.

It proved to be an inspiring prelude to a fruitful meeting, which was held at the Centre of Innovative Dental Education (CIDE) in The Hague and was attended by 30 Fellows. Two Fellows travelled far to join us: Gil Alcoforado from Portugal and Graeme Ting from New Zealand. The meeting started with a tour of CIDE to introduce the Fellows to the educational opportunities it offers.

A brief history: CIDE was founded two years ago by Fellows Michaël Smulders and Walter van Driel after more than 20 years of extensive experience in postgraduate dental lecturing across numerous locations, including universities. Their exposure to, and understanding of lecturer needs, in addition to their vast experience, gave rise to this beautiful facility – well equipped to allow lecturers to assess and address dentist needs, adding skills that can be used immediately following a course.

A long period of research to explore the needs for a new approach to postgraduate education has now resulted in this unique and contemporary dental institute. CIDE is an ideal venue for both local and international lecturers and ICD Fellows to share theory and practical expertise while intuitively imparting their knowledge with each dentist in practice. Continuing the meeting proceedings, Regent Walter van Driel summarised the 57th Anniversary Congress held last June in Munich and reported the very positive feedback from the Fellows abroad about the high standard of the Scientific Meeting.

Fellow Gert de Lange had been invited to give a lecture about History, Present and Future of Implantology. Dr. de Lange was honoured for his significant achievements in laying the scientific basis of clinical implantology. During the ceremony in Munich, Philippe Dochy from Ieper (Belgium), General Practitioner and specialist in aesthetic dentistry, was inducted as Fellow. Philippe gave a presentation on how he collaborates with implantology and a dental technical laboratory in his work. Also Michaël Smulders, who was inducted as Fellow last year in Vienna, introduced himself in more detail, lecturing on magnification in dentistry.

The Benelux District now has 46 Fellows, including 4 Life Members and 2 Masters.

Our pleasant and informative meeting came to a culinary close with a dinner in a local Indonesian restaurant.

Walter van Driel, Regent ■

Benelux Fellows eagerly awaiting Rembrandt.

Gert de Lange addressing Fellows in CIDE laboratory.

Dinner at last!

Other Districts, as reported to the Registrar during the Winter Board Meeting, December 2012:

Austria

The Austria District now has 32 members, 2 Life Members and 1 Master, with 3 or 4 Inductees for Copenhagen. The Regional Meeting was held one week before the Meeting in Munich in the beginning of June, the final day of the Europerio Meeting in Vienna. Austria Regent Werner Lill reports that the District is in good order.

France

The French District has 48 Active Fellows, 2 Masters and 5 Life Members. Regent Jen Louis Portugal expects to have 2 Inductees for Copenhagen. Life Membership was proposed and granted to Dr. Peter Pre, a Past President and Master of ICD who is retiring from his practice.

Spain

Regent Juan Salsench reports that the Spanish District is in good order. There are 2 Life Members; three new members were inducted in Munich, 21 members are Active Fellows. The Regional Meeting was held in Leon in October 2012.

Portugal

The District has 44 Active Fellows and 5 Life Members. The Regional Meeting was held in March 2013. Presentations on humanitarian projects were given, and attendees were informed how to apply for funding to the P&F Committee to be funded from the Philip Dear Fund.

Registrar Argirios Pissiotis

Scandinavia

President and Regent Henrik Harmsen reports that the Scandinavian District has 28 Fellows, 4 Life Members and no Masters or Honorary members. 5 Inductees are expected in Copenhagen. The Regional Meeting was held about 1 month ago in Stockholm, and Regional Meetings were held in each of the three countries so far. The District is very much alive and kicking. A potential candidate in Iceland was contacted, but this person withdrew; however, according to Dr. Harmsen, this is not the end of the story for Iceland. The Scandinavian District is anxious to welcome Annual Meeting attendees in Copenhagen next June.

Greece and Cyprus

Heraklis Goussias, Regent for Greece and Cyprus, reports that the District is in good order. There are 44 Active Fellows, 1 Master and 7 Life Members.

Eastern & Central Europe

This District has spread to 11 countries and now has 27 Active Fellows. There will be at least 9 Inductees in Copenhagen. There was no specific Regional Meeting, but members met during other events, particularly in Serbia, Croatia and Hungary. Member activity in this part of Europe is increasing, particularly in Ukraine, which is why a meeting is being planned in that region for spring 2013.

College at Large President Dr. Garry Lunn addresses the 2012 Inductees

I wish to thank you for the opportunity to speak to your 57th Annual Meeting. As International President, I bring you greetings and well wishes from the 12,000 strong Fellowship worldwide. The European Section has a rich history within the ICD, gaining Sectional Status in 1955. The first ever VP of ICD in 1928 was Harold Chapman from London, England, and at that time 6 of the 12 Regents were from Europe. You have had 9 International Presidents and there have been 20+ Master Fellows from your Section.

Let me begin by saying what a marvelous few days this has been. I cannot imagine the amount of planning and hard work this must have taken to bring this conference to fruition. I congratulate you, Wolfgang and Minu. This conference is a complete package, from the well-planned social events to the business meeting, educational seminars and concluding with this evening's Convocation. I have not experienced this before in all my travels, and I have been doing a lot lately, and this is as good as it gets. I also must comment on yesterday's scientific sessions. As I have already said to a number of Fellows, I've been taking dental continuing education courses for over 37 years, many of them top notch courses and seminars and I will tell you, yesterday ranked right up there at the top. Excellent content and quality presentations. Thank you.

Yesterday afternoon was particularly inspiring for me, hearing and seeing the humanitarian projects your Section supports through the Philip Dear Foundation. For me this is what makes me most proud of ICD. Our ability to help those less fortunate or in need. We are blessed with skills and talents and the means to make a significant contribution to humanitarian projects. The Hani Farrs, Miquel Pavãos, Reiner Jordans and Vicente Lozanos and the Moldova projects and all the other like them – they are our "Calling Cards" and it is your financial support and those individual efforts that make it possible. I congratulate you all. And as different as our Sections and Districts may be culturally and geographically, we have this commonality and gift to give back.

Be it:

- tree planting in the Philippines after the hurricanes
- constructing dental clinics after the earthquakes in Chile
- supporting dental hospitals for the 400,000 disabled in Seoul, Korea
- working in partnership with 6 Rotary Clubs in Taipei to bring dental care and water and electricity to a remote Taiwanese community
- taking dental education, grants and expertise to Mongolia from Japan
- delivering dental services to children in remote villages in the Philippines and Vietnam from Canada and the list goes on and on – from ALL our Sections.

This was so well celebrated in this year's Globe by Dov Sydney in the "Impact" document. So we must continue to do this, and we do so by supporting these outreach programmes, be it in person or financially. We also must expand our reach by increasing our Fellowship. I better understand the challenges Europe faces, as discussed at the Regent's meeting the other day.

Like I said, perhaps Council Office may be of help.

There has been new growth this year:

- 34 new Fellows in Africa from Cameroon, Ghana, Nigeria and Kenya
- 17 new Fellows in Kazakhstan through the hard work of VP Woong Yang
- and the revitalisation of the dormant District of Vietnam with 17 new Fellows.

The European Section 2012 Inductees


Sabine Brandstätter


Frederick Mayrhofer


Werner Millesi


Alfred Riesser


Philippe Dochy


Allan Pirie


Marianne Forsell


Bertil Herbst


Johan Segerström


Endre Vasstrand


Jacques Raynal


Daniel Edelhoff


Clara Hansson


Reiner Jordan


Christoph Kaaden


Jan Kühnisch


Jörg Schröder


Wolf-Dieter Seeher


Stefanos Kourtis


Olga Papasotiriou


Leo Stassen


Rosanna Chiappino


Fabio Ciuffolo


Nicola Laffi


Francesca Zotti


Pedro Nicolau


Helena Reimão Pinto


Raquel Osorio


Monica Aliaga


Paula Aliaga


Serge Borgis


Oksana Denga


Vira Kaiukova


Branko Kokošinek


Iris Lombergar


Serchiy Radlinsky


Nikolai Sharkov


Zdenko Trampus

Much of this information is communicated internally through email and externally for all to see through our updated website managed by our new Director of Communications Dov Sydney, and the College at Large ICD Facebook. Our first venture into social media. I encourage you to look at these sites as they present a wealth of information on our organisation. Facebook is getting 120-200 hits a week; people are finding out about ICD and Fellows are following current activity of the ICD. If you were to go to Facebook you would see:

- video of the India College at Large Council meeting in November
- convocation photo journals of Japan, Iran, Korea, Kazakhstan, Taipei, Africa, China and Myanmar
- and many regional postings of local events and humanitarian projects.

Next week, when I get home, you will see Europe's postings.

Enough about the College at Large, let's talk about the New Fellows.

Congratulations! Today we are recognising your contribution to your profession and community. You have been chosen by your peers to become a Fellow in the oldest and largest international honorary dental organisation in the world. But your journey does not end here. You are expected to adhere to the Goals and Objectives of the College. This is much more than something you put on your business card – although I hope you do. This is a once in a lifetime opportunity. As was said the other day from the floor after the humanitarian presentation by a Fellow: "it will give back more than what you put in". So promise me, and your Section and District, that this is the beginning; not a trophy on the wall but an opportunity to participate in this fabulous organisation. Welcome! And I can tell you from experience the fun begins now my friends, and it can enrich your life beyond your dreams – as it has mine. In closing, It was an honour for my wife and daughter and I to be here, and share in your meeting and Convocation.

We sincerely thank you for your generous hospitality. I look forward to welcoming any of you to my home of Vancouver, Canada.

Danke!

European Section Officers and Regents

First row from left to right
Wolfgang Bockelbrink, Acting President, Munich meeting
Matthias Bimler, Incoming Regent, Germany
Werner Lill, Regent, Austria
Garry Lunn, Acting President, College at Large
Shelagh Farrell, Regent, England, Scotland & Wales
Sheldon Dov Sydney, Regent, Israel, The Baltic States & Malta
Argirios Pissiotis, Registrar, European Section

Second row from left to right
Christian Robin, Regent, Switzerland
Ljubo Marion, Regent, Eastern and Central Europe
Tom Feeney, Regent, Ireland and Vice-President, European Section
Walter van Driel, Regent, Benelux and Treasurer, European Section
Jean Louis Portugal, Regent, France
Gil Alves Alcoforado, Regent, Portugal

Third row from left to right
Henrik Harmsen, President, European Section and Regent, Scandinavia
Heraklis Goussias, Regent, Greece & Cyprus
Corrado Paganelli, Regent, Italy