

## EDITORIAL

## The impact of Oral Medicine's global efforts on advancing oral health care, discovery, and dissemination of best practices



Oral Medicine (OM) is often referred to as the interface between Dentistry and Medicine, and after years without formal specialty status in the United States, this discipline is now recognized as a specialty by the American Dental Association (ADA). One important aspect of this long journey on the part of the American Academy of Oral Medicine (AAOM) that led to specialty status was increased involvement with our colleagues in OM around the world. Most notably, in the mid-1980s, Professor Sir David Mason (University of Glasgow, Scotland) and Dr. Dean Millard (University of Michigan) conceived the idea of bringing together experts in OM from around the world to explore the current status and future directions of the field. The first 3 World Workshops on Oral Medicine (WWOM) took place at the ADA headquarters in Chicago in 1988, 1993, and 1998, each involving nearly 50 global experts in OM, who reviewed the current literature and examined educational standards.<sup>1-3</sup> The fourth, fifth, sixth, and seventh Workshops took place in San Juan, Puerto Rico (2006), London, U.K. (2010), Orlando, FL (2014), and Gothenburg, Sweden (2018).<sup>4-7</sup> The most recent Workshop in 2018 involved 96 participants from 22 countries and 6 continents, who focused largely on clinical and research topics at several interfaces with medicine.

The overall WWOM objective is to create systematic reviews and other evidence-based articles on topics of importance to the specialty. For past Workshops, this has included management recommendations for important clinical conditions, position papers on OM training and practice, and “blue sky” papers on a variety of other topics. The publications resulting from this effort target OM experts, as well as trainees, educators, and providers in both Medicine and Dentistry. At each of these last 4 Workshops, increasing numbers of global experts in OM and other fields worked in formalized sections to develop publications on a variety of topics important to the specialty, which, in the United States, covers dental management of medically complex patients as well as the diagnosis and management of nonsurgical conditions and diseases of the maxillofacial region.

A Workshop organizational structure has evolved allowing for involvement of selected members of the international OM community, from advanced-level OM trainees to senior academics and practitioners. The

details of the organizational structure, composition and selection of Workshop participants has been described elsewhere.<sup>6</sup> The current 8-member WWOM Steering Committee (hereafter referred to as “Steering”) leadership represents 7 countries and comprises OM specialists who have extensive scientific and administrative experience and have overall responsibility for all activities. Steering is dedicated to advancing OM patient care, health professional training, and science at the international level.

Workshop topics are determined by Steering, often with input from the international OM community. They, then, select individual Section Heads for each topic; these individuals, however, are not usually experts on the topic, which is intended to reduce bias and promote the objective training of trainees and junior level faculty in the process of evidence-based reviews. The Section Heads involve a group of Consultants, who are generally expert researchers and clinicians, who have often published in the Workshop subject area in recent years. They may include physicians and members of basic science disciplines, and they play an important role in reviewing and commenting on early and subsequent drafts of manuscripts.

An international competition is launched to select Reviewers and Assistant Reviewers, who work under the supervision of their Section Heads. Reviewers play a central role in the process, from initiating the project through finalizing one or more manuscripts for publication. They are early- to mid-career specialists in OM and well versed in systematic reviews and research methodology but, most deliberately, are not experts in the selected topics. Assistant Reviewers, who are either early-career specialists in OM or advanced-level trainees, are involved in every aspect of the effort by their group.

Once the workgroups and topics are established, through the intervening years between Workshops, conference calls are regularly scheduled to discuss the status of each of the initiatives within up to 8 topic-specific workgroups. Thus, Steering is able to monitor progress and ensure that all understand the established Workshop process, from the literature review through to the development of the near final drafts for discussion at the 2-day Workshop meeting. During the in-person Workshop, each group discusses each manuscript in detail and refines it to its penultimate draft for publication.

The past 4 Workshops were scheduled to immediately precede, on an alternating basis, the AAOM or European Academy of Oral Medicine (EAOM) meetings. This arrangement has several benefits. For example, the Workshop faculty and trainees have the opportunity to join a large group of international specialists and formally present their Workshop outcomes to an AAOM or EAOM audience of their peers.

The Steering Committee for WWOM has pursued several goals and new initiatives for future meetings:

1. Increase the impact of Workshops on interdisciplinary research by choosing topics that stimulate research between Workshop participants and clinical and basic science researchers from other fields.
2. Create an Advisory Committee of longstanding WWOM Steering members who rotate off Steering but continue to support the Workshops in an advisory position and take on projects that are beyond the capacity of Steering.
3. Further develop and extend a continuing education format for enhanced clinical practice training for national and international meetings. This case discussion format for small groups was piloted in London (U.K.) at the Royal Society of Medicine in 2013 and has been well received by OM specialists from around the world.
4. Continue to promote the coming together of the American, European, British, Australasian, and other OM organizations and develop educational programs and training opportunities. Such an effort in support of the 2014 WWOM meeting resulted in the largest OM meeting ever held.
5. Continue and expand the mentorship of trainees and early career faculty in OM to enhance their personal development as leaders in the specialty in patient care, teaching, and research.

These Workshops have had a significant impact on this specialty. In addition to the extraordinary benefit they have conferred on the professional development of junior faculty and trainees, the international collaborations between Workshop faculty have resulted in high-impact articles published as a single volume in the months following the Workshop.<sup>8</sup> These articles have elevated the scientific basis of our clinical OM practices by critically analyzing the scientific basis of this specialty, thereby strengthening the foundations of our field. For example, the nature and quality of the WWOM IV-VI publications have resulted in high visibility and high Scopus scores, as shown by a bibliometric analysis performed on SCOPUS in February 2020. Five of the top 14 articles published in *Oral Surgery*, *Oral Medicine*, *Oral Pathology*, *Oral Radiology* in 2007 are from WWOM IV; 5 of the top 12 articles

published in *Oral Diseases* in 2011 are from WWOM V; and 3 of the top 11 papers published in *Oral Surgery*, *Oral Medicine*, *Oral Pathology*, *Oral Radiology* in 2015 are from WWOM VI.<sup>4-6</sup> The 15 articles from the 2018 WWOM VII published in *Oral Diseases* have not been in print long enough to measure these outcomes.<sup>7</sup> These data demonstrate that the publications from WWOM IV, V, and VI had H index scores of 11, 9, and 9, respectively, and had a high number of mean citations (40 for the WWOM IV, V, VI, VII publications taken together), and consistently had the highest impact among the articles published in the same year by these 2 journals.

Other fields within Dentistry have followed the WWOM lead with global efforts to achieve consensus on issues of importance and to expand collaborations in the discovery and dissemination of knowledge. A notable example has been the International Workshops on Oral Manifestations of HIV Infection, which began as a section of the first WWOM meeting, with their report published as part of the WWOM proceedings in 1988.<sup>1</sup> These HIV Workshops have continued, following a format similar to that of the WWOM and have resulted in 7 subsequent workshops with published proceedings at 4-year intervals.<sup>9</sup> Starting in 1996, other groups have had World Workshops and International collaborations to aid in the definition and management of periodontal diseases and caries.<sup>10-12</sup> Leaders in OM and of the WWOMs hope that by sharing the structure and success of this WWOM model of high-impact global collaboration and resulting dissemination of scholarly articles, other groups in health care will be encouraged to strive to improve evidence-base for clinical practice and the mentorship of the next generation of academics.

Peter B. Lockhart, DDS

**Editor's Note:** We asked Professor Sir David Mason for his reflections (below) on the WWOM activities since the third WWOM. Sir David is considered one of the founding fathers of OM as a specialty in the United Kingdom. He received his dental degree in 1952 from St. Andrews University and went on to train in Oral Surgery. After receiving his Fellowship in Dental Surgery, he became aware of the "no man's land" between Medicine and Dentistry and enrolled in the medical school at University of Glasgow. After receiving his MBChB medical degree and 5 years of additional medical training and research, he received his MD with a focus on research into salivary gland disease, especially Sjogren syndrome. He was Professor of Oral Medicine and Head of Department in Glasgow from

1967 to 1992 and Dean from 1980 to 1990. He also served as President of the General Dental Council for the United Kingdom from 1989 to 1994. He was knighted by Queen Elizabeth II in 1992 for his service to the field of Dentistry.

### Some Reflections on WWOM 1988-2020

The theme of the first WWOM was “Current Status and Future Directions of Oral Medicine.” Its purpose was to bring together leading authorities in the field and to make recommendations regarding the direction of research, dental education, and patient care in OM. Recently, I have enjoyed reading the Proceedings of the fourth to seventh WWOM. I have been very impressed by the progress that has been made since the third WWOM, as exemplified by:

1. The increased that has been number of faculty that has enabled the Workshops to be more international compared with the first WWOM, as exemplified by: which was mainly represented by the United States, the United Kingdom, and Scandinavia.
2. The gratifying increase in attendance by younger faculty, which bodes well for the future.
3. The process of selection of faculty and reviewers becoming better defined and more transparent, as well as the invitation to everyone to participate in the consideration of topics for future WWOMs.
4. The broadening of perspectives and the range of topics of relevance to OM (e.g., at the fourth WWOM, I was glad to see that the management of medically complex patients was seen as a significant subspecialty of OM in many countries. Knowledge of how medical conditions and their drug therapies affect patients and their oral health is an essential part of OM and safe dentistry).
5. Recognition of the continuing need for more controlled trials and systematic reviews; and
6. The continuing success of the WWOMs, as evidenced by the encouraging feedback from participants regarding the value of the Workshops in relation to career development and also by the high standard of citations achieved by the WWOM publications.

So much has been achieved, but what of the future? I am sure there will be no shortage of topics to be considered, but there are 2 which I find particularly interesting at the present time. The first topic is the great interest in global health at present, both as a subject and as a specialty. This will result in greater international cooperation and integration of governments, the World Health Organization, and institutions (academic, health care, industrial, commercial, etc.), recognizing the social determinants of health and promoting healthy equality of lifestyle to prevent such diseases and conditions as

diabetes, obesity, dental caries, and some types of cancer. The second topic is the development of personalized medicine or precision medicine based on an understanding of genetics, genetic mutations, and the development of biomarkers to enable the targeting of specific drug therapy for the individual patient. I am sure future WWOMs will be well placed to contribute to those challenges in patient care in OM and related areas.

Last week I was delighted to hear from a member of the AAOM that OM has been recognized as a specialty by the ADA, and I thought immediately of my old friend Dean Millard, who co-organized the first 3 WWOMs with me and worked so hard toward achieving this outcome. He would have been so pleased with this news. Finally, I would like to thank the WWOM organizers for all they have done to develop the fourth to seventh WWOMs.

*Prof Sir David Mason*

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