

**Academic Program Review of the  
Master of Science in Dentistry Program and the  
Baccalaureate Degree Completion Program in Dental Hygiene**

**April, 2011**

Background and Committee Charge

The Master of Science in Dentistry (MSD) is a professional master's degree offered by the UW School of Dentistry in six of its advanced clinical specialty areas: Endodontics, Oral Medicine, Orthodontics, Pediatric Dentistry, Periodontics, and Prosthodontics. The last comprehensive review of the program was completed in February, 2001. At that time, the Graduate School Council recommended continuation of the MSD program for another ten years.

The broad charge to the current review committee was "...to assess the quality of the School and its degree program and provide the faculty with constructive suggestions for strengthening the program." The School of Dentistry also asked for the committee's advice about the future of its Bachelor of Science Degree Completion Program in Dental Hygiene, which has been on hiatus and has not enrolled any new students since 2005.

Review Committee Members

Paul L. Fidel, Jr.  
Professor and Head, Department of Oral and Craniofacial Biology  
Associate Dean for Research  
School of Dentistry  
Louisiana State University  
New Orleans, LA

Thomas D. Koepsell (committee chair)  
Professor, Epidemiology and Health Services  
School of Public Health  
University of Washington

Kathleen J. Newell  
Associate Professor  
Department of Primary Dental Care  
School of Dentistry  
University of Minnesota  
Minneapolis, MN

Katherine Dryland Vig  
Professor Emeritus, Division of Orthodontics  
College of Dentistry  
The Ohio State University  
Columbus, OH

JoAnn D. Whitney  
Professor, Department of Behavioral Nursing and Health Systems  
School of Nursing  
University of Washington

### Review Process

The review committee was provided with a Self-Study document (86 pages, including appendices) prepared by the School of Dentistry in February, 2011. The committee also received the report from the prior review in 2001, the school's written response, and the final report to the Provost from that review.

On January 11, 2011, the committee met to receive its formal charge from Graduate School Associate Dean James Anthony. At that meeting, School of Dentistry Executive Associate Dean Timothy DeRouen explained why the school also sought advice about its Baccalaureate Degree Completion Program in Dental Hygiene.

On April 1, 2011, the committee met with Douglas Ramsay, Chair of the Department of Public Health Sciences, and with Norma Wells, Director of the Dental Hygiene Program, to discuss the baccalaureate dental hygiene program.

The main site visit was held on April 4-5, 2011. During that visit, the review committee met with the Dean and Executive Associate Dean; with Program Directors from the six relevant specialty areas; with graduate students in the MSD program; with core course directors; with Department Chairs; and with representatives from the Oral Health Collaborative.

This report first addresses strengths, challenges, and committee recommendations concerning the Master of Science in Dentistry program. It then addresses the Baccalaureate Degree Completion Program in Dental Hygiene.

## **Master of Science in Dentistry Program**

### Strengths

The MSD provides a research experience for Residents in the six specialty areas and is conferred with the certificate in the advanced specialty program. While it is not compulsory to complete the MSD, almost 100% of Residents graduate with both the specialty certificate and the MSD degree. The review committee considered several factors to be important strengths of the program:

- It has strong ties to the certificate programs in each specialty area and attracts high quality applicants to the advanced specialty programs. The program's high graduation rate is impressive.

- It enhances the quality of pre-doctoral education at UW.
  - It aids recruitment and retention of quality faculty who are attracted by a resource for research opportunities and manpower.
  - It fosters an active research program, which generates publications and presentations that strengthen undergraduate education.
  - It adds teaching resources by involving MSD students in pre-doctoral teaching.
- It provides guidance and assistance for Residents in their thesis research and data collection, enabling them to gain research experience that they can apply both in the Residency program at UW and elsewhere.
- It has a strong record of success with publications and dissemination of student research.
- It produces highly trained clinical specialists that meet societal needs for the state and region.
- It develops critical thinking of clinical specialists, including skills for life-long learning and an evidence-based approach to clinical practice
- It provides a pathway towards an academic career for some graduates.
- It capitalizes on the rich resources available in the greater UW environment.

#### Challenges and Areas for Improvement

- Goals and objectives. Additional clarity of the mission and vision of the MSD program and its role in preparing individuals for involvement in an academic career (full or part time) is needed.
  - The program appears to have had modest success at recruiting MSD students into academic dentistry, but it is not entirely clear what mix of practitioners and academicians it seeks to achieve.
  - The training and experience in research methods provided by the MSD can introduce students to research but may not be sufficient to prepare them to carry out independent research as a significant part of a future academic career, especially in an era of keen competition for scarce research funds. The program might clarify what role the MSD can play in serving as a stepping stone toward a career in academic dental research.
- Cross-departmental consistency. The committee noted some cross-departmental unevenness in the research and teaching experience for MSD students. This includes:

- Inconsistency in expectations for the thesis as a final product: some departments require manuscript submission, others require a “potentially publishable” product, and others have less stringent requirements.
  - Variable composition of student advisory committees among departments.
  - Ready availability of funds to support MSD student thesis research in some departments and scarcity in others.
- Funding. The University of Washington and its schools, including Dentistry, face considerable challenges because of deep cuts in state funding for higher education in Washington State. At the same time, federal funding and resources are also at risk, and competition for funding is intense. The high debt burden of education was expressed by both faculty and students as a barrier to pursuing an academic career. In addition, the current recession has limited patient availability in certain specialties, as patients cannot afford more costly procedures or delay seeking care for economic reasons.
  - Tracking of progress toward program goals. The committee noted that many of the challenges facing the MSD program are long-term issues that were raised in the prior review. However, scarcity of data on progress/impact over time in such indicators as the mix of career paths and student publications makes it difficult to judge whether there is evidence of improvement.

### Recommendations

The review committee applauds the School of Dentistry for the high level of excellence achieved over the last ten years of the MSD. The committee enthusiastically recommends that the MSD Program be continued for another ten years. The following are specific recommendations and suggestions to strengthen the MSD program:

- Mission and vision
  - The School of Dentistry should clarify the mission/vision/goals for the MSD relative to a realistic percentage of graduates going into academic (full and part-time) vs. private practice career paths.
  - Recognizing that the current MSD program is preparing clinicians very well with exposure to research and critical thinking skills, how can the MSD be a solid step toward an academic career?
  - Empower the Program Directors Committee to develop ways to accomplish the mission/vision/goals for the MSD through strategies for recruitment of applicants, criteria for acceptance, and professional development during the MSD program.
- Cross-departmental consistency

- Student advisory committee composition. The review committee suggested the following target mix of student advisory committee members:
  - At least one member should come from outside the student's home department.
  - Depending on the project, at least one member should be a research methodologist (e.g., biostatistician or epidemiologist), a basic scientist, or an experienced clinical researcher, without necessarily having specific subject-matter expertise on the student's research topic.
  - Consider expanding the committee to include a junior faculty member who can help to develop his/her mentoring skills through committee participation.
  - Two or more of the above roles may sometimes be filled by the same faculty member.
- Consider mandating a progress report after advisory committee meetings, following a uniform format.
- Protected time for research. The program should seek additional ways to provide MSD students with sufficient time during normal working hours to conduct their thesis research. That time should truly be protected from competing demands of clinical duties, meetings, and other requirements. Fragmentation of research time (e.g., an hour or two here or there in the weekly schedule) should be avoided. In some cases, a 3-6 month increase in overall length of the MSD program may be needed to meet this goal.
- Teaching opportunities. While most MSD students already participate in clinical teaching, opportunities for classroom/didactic teaching should be provided to all students, in order to let them develop interest and skills for this aspect of academic dentistry. Ideally, significant involvement in formal teaching should be compensated through stipends or tuition reduction in relation to time spent.
- Funding for student research. With state and federal funding becoming scarcer, contributions from alumni may be an increasingly valuable source of funding for student research and research-related travel. Strengthening this effort at the school (rather than department) level may offer a way to diminish cross-departmental inequities in availability of such funds for students.
- MSD program administrative home. The School of Dentistry should consider relocating the MSD program from the Graduate School to the School of Dentistry. Such a shift may reduce levels of bureaucracy and allow greater local control and efficiency without compromising the quality of the program.

## **Baccalaureate Degree Completion Program in Dental Hygiene**

### Introduction

A number of studies on the dental hygiene programs at the UW School of Dentistry have been undertaken over the last several years, resulting in the following recommendations:

- Elimination of the pre-licensure baccalaureate dental hygiene program in 1981.
- Continuation of the Bachelor of Science Degree Completion Program in Dental Hygiene.
- Elimination of the Department of Dental Hygiene and placement in the Department of Dental Public Health Sciences.
- In 2001, phase-out of the baccalaureate degree program while exploring and developing options for advanced training of dental hygienists. At that time, the program was put on hiatus in an effort to determine how best to use UW's limited faculty resources and a to build on what the UW School of Dentistry does best.
- In a 2005 document entitled *Dental Hygiene Education Examined*, a recommendation that the Department of Oral Biology expand its offerings to provide a pathway through its Master's program for dental hygiene educators.

More recently, another option for advanced educational opportunities for dental hygienists was pursued through a collaborative agreement with Eastern Washington University, e.g., partnering with EWU through a joint professorship to partner in future dental hygiene education. However, insufficient resources resulted in tabling of these plans.

### Current Options

In the context of the above history, the imminent retirement of the one dental hygiene faculty member, and other lack of resources, the School of Dentistry sought the review committee's advice as to which of three options should be pursued: (1) reactivation of the program; (2) elimination of the program; or (3) continuation of the current hiatus.

### Recommendations and Suggestions

The 2010-2011 External Academic Program Review Committee recommends:

- Elimination of the Bachelor of Science Degree Completion Program in Dental Hygiene. This course of action would reduce duplication of effort between Washington institutions. Moreover, the changed training environment and turnover of key faculty would almost certainly require a major redesign of the program if it were re-activated.

- Enhancement of the Master of Science in Oral Biology - Dental Hygiene program, as suggested in the 2006 *Preliminary Recommendations for Rebuilding, Redesigning and Reengineering of UW's Dental Hygiene Curriculum* document. Focusing on graduate-level training would build on what the UW School of Dentistry does best. Such a program could provide needed dental hygiene faculty, with advanced education, throughout the U.S.
- Re-direction of dental hygiene faculty resources to the Master of Science in Oral Biology for Dental Hygienists program.

In addition, the review committee offers the following suggestions:

- An intensive marketing effort could be undertaken to inform dental hygiene faculty, students, and practitioners about such a master's degree program. In view of the uniqueness of the program, this marketing effort could extend well beyond Washington State.
- In addition to a traditional in-residence, daytime program in oral biology, the UW School of Dentistry should investigate whether to support an "extended degree" oral biology master's program for dental hygiene faculty who are currently teaching and who may live and work far from Seattle. This program could be offered over several summers so that students could complete coursework and thesis requirements. Required statistics and research courses could be taken in conjunction with the school's current Summer Research Institute.