

# Oral Health Practitioner Recommendations

*Report to the Minnesota Legislature 2009*

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**Minnesota Department of Health  
Minnesota Board of Dentistry**

**January 15, 2009**



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# **2008 Oral Health Practitioner Work Group Executive Summary and Recommendations**

## **I. Introduction and Background**

The Minnesota Department of Health (MDH) and the Minnesota Board of Dentistry prepared this report from the proceedings of the Oral Health Practitioner Work Group established by the 2008 Minnesota Legislature. Following election of the chair, Joan Sheppard, D.D.S., the work group of 13 members met eight times to deliberate the 10 categories defined in Laws of Minnesota 2008, Chapter 298. The work group reviewed current literature and some of the work group members traveled to New Zealand, Canada and Great Britain to observe mid-level dental provider programs in those settings. Work group member observations and input are included in Appendix H.

The oral health practitioner work group addressed the 10 issues defined by the legislature, choosing to combine some issues that are closely integrated in practice. The legislature directed the group to provide recommendations and proposed legislation that used evidence-based strategies to address the issues to improve access for Minnesotans who are low income, uninsured and underserved; control the cost of education and dental services; preserve quality of care; and protect patients from harm.

The work group's recommendations appear at the end of this executive summary. Where the work group was unable to reach consensus, particularly related to scope of practice and required supervision, recommendations were determined by a majority vote. The work group reviewed draft legislation developed jointly by MDH, the Board of Dentistry and Senate Counsel.

## **II. Requirements to Practice in Underserved Areas**

Minnesota Statute (M.S. 150A.061, Subd. 3) requires agreement by oral health practitioners to practice in settings that serve patients who are low-income, uninsured, and underserved or reside in a Dental Health Professional Shortage Area as determined by the commissioner of health. The work group reviewed current information regarding the number of Minnesotans who meet these criteria and considered several definitions of populations and practice settings appropriate for oral health practitioner practice.

## **III. Educational Requirements, Competencies, and Training Requirements**

Statute requires that oral health practitioners be graduates of an oral health practitioner educational program that is accredited by a national accreditation organization and approved by the Minnesota Board of Dentistry, or a program accredited by the Commission on Dental Accreditation. Oral health practitioners must also pass a comprehensive, competency-based clinical examination that is approved by the board and administered independently of an institution providing oral health education. The 2008 Legislature charged the work group to recommend and propose legislation that states the necessary education and competencies, including clinical training, faculty expertise, and facilities, and the appropriate program accreditation.

The work group received presentations from the University of Minnesota School of Dentistry and from the partnership between Metropolitan State University and Normandale Community College of the Minnesota State Colleges and Universities System (MnSCU). Both the University of Minnesota and MnSCU representatives indicated that they will be capable of meeting the necessary educational requirements, training students to a level of competency to meet the oral health practitioner license requirements, and preparing graduates to successfully pass licensing exams and begin practice. The Minnesota Board of Dentistry also presented its proposed steps for approving education programs until such time as the Commission on Dental Accreditation (CODA) establishes a national accreditation process

Official accreditation of programs will not be possible until the programs are established and in the process of training oral health practitioners. Both the University of Minnesota and MnSCU programs will seek CODA accreditation. The Minnesota Board of Dentistry will establish an interim process to recognize institutions and programs. Recognized clinical testing organizations will develop an exam specific to the competencies required for the oral health practitioner.

#### **IV. Scope of Practice, Including Extractions, Medications and Level of Supervision**

The 2008 legislation directs the work group to recommend the scope of practice, level of supervision, medications that may be prescribed, administered and dispensed, and extractions that may be performed by oral health practitioners, under the auspices of a collaborative management agreement.

The Board of Dentistry developed a list of potential procedures that might be performed by oral health practitioners under a collaborative management agreement with a supervising dentist. Following unsuccessful efforts to reach consensus, work group members reached decisions by voting on procedures to be included in the scope of practice and minimum levels of supervision required. Majority vote resulted in inclusion of 52 procedures under general supervision; one under indirect supervision; one with supervision level undetermined by the work group; and two procedures excluded from the scope of practice. Work group members also identified perceived benefits and risks for scope of practice decisions, and these are included in Table 3 (beginning on page 21.) The correspondence and proposals from members (Appendix H and I) also capture much of the essence of the points made in work group discussion.

Statute requires that oral health practitioners practice under a collaborative management agreement with a Minnesota licensed dentist. The work group created a list of recommended elements to be included in collaborative management agreements.

#### **V. Economic Impact**

The 2008 legislation assigned the work group to recommend and propose legislation that includes an assessment of the economic impact of oral health practitioners to the provision of dental services and access to these services. The work group discussed a framework for considering economic or business case scenarios for oral health practitioner practice in a variety of settings and reviewed a list of possible variables related to scenario building. Work group members and others submitted economic scenarios to illustrate the business and financial impact of oral health practitioner practice and education.

Although it is premature to draw conclusions about the economics until oral health practitioners begin to practice and scenarios such as those in this report can be based on actual numbers, the Minnesota Department of Health, the Board of Dentistry and institutions educating oral health practitioners should continue developing models to capture and analyze the economic impact of oral health practitioner practice on the delivery of and access to dental services. The work group also acknowledged that the educational institutions planning oral health practitioner programs have been and will continue to invest in educating this new provider group. In some cases this will create significant new costs for the educational institutions.

## **VI. Evaluation of Minnesota's Oral Health Practitioner Initiative**

The oral health practitioner legislation assigned the work group to recommend and propose legislation that establishes an evaluation process and includes clearly defined outcomes with a process for assessment. The work group reviewed a draft evaluation model and identified evaluation variables. Given the expected small number of oral health practitioner graduates per year, it was determined that initial evaluation should focus upon the activities and outcomes for these practitioners.

## **VII. Licensure and Regulatory Requirements**

The oral health practitioner legislation assigned the work group to recommend and propose legislation that states the licensure and regulatory requirements, including license fees. The work group determined that licensure requirements for the oral health practitioner will parallel the established standards for other regulated dental professionals, including strict educational and testing criteria for licensure. The Board of Dentistry will establish fees and continuing education requirements that correlate with other dental professions. The oral health practitioner will also be subject to the statutes and rules related to the practice of dentistry, and may be disciplined by the board for noncompliance with those requirements and standards established for health care professionals.

## Oral Health Practitioner Work Group Recommendations

The following work group recommendations reflect a combination of consensus decisions and, where no consensus was reached, recommendations made by a majority vote of the 13-member work group. A majority vote of the group required seven or more votes. In addition to the recommendations themselves, the report also provides rationale for both majority and dissenting opinions.

### I. Requirements to Practice in Underserved Areas

#### A. Oral Health Practitioners will serve the following populations:

1. **Low-income:** Minnesotans at or below the upper limit of Minnesota Health Care Program (MHCP) eligibility, which is currently 275 percent of the Federal Poverty Limit
2. **Uninsured:** People of low-income without public, government or private dental insurance
3. **Underserved:** Individuals with significant barriers to receiving dental care
4. **Dental Health Professional Shortage Areas:** Minnesotans who live in areas meeting criteria defined by the U.S. Department of Health and Human Services.

#### B. Oral Health Practitioners will be authorized to practice in the following settings:

1. Critical Access Dental Providers (CADP) - Settings and providers eligible for payments under Minnesota Department of Human Services criteria for CADP designation. As of FY 2008, a total of 168 dentists have been enrolled in the CADP, with 58 continuously enrolled (DHS, 2008).
2. Dental hygiene collaborative practice settings - Settings and providers eligible for collaborative dental hygiene practice arrangements are permitted: *A “health care facility, program, or nonprofit organization” is limited to a hospital; nursing home; home health agency; group home serving the elderly, disabled, or juveniles; state-operated facility licensed by the commissioner of human services or the commissioner of corrections; and federal, state, or local public health facility, community clinic, tribal clinic, school authority, Head Start program, or nonprofit organization that serves individuals who are uninsured or who are Minnesota health care public program recipients. (Minnesota Statutes, section 150A.10)* **The work group added medical facilities and assisted living facilities to this list.**
3. Military and Veterans Administration hospital, clinics and care settings
4. Patient homes - In the patient’s home or residence, when the patient is homebound, or receiving or eligible to receive home care services or home-and-community-based waived services, regardless of income

5. Clinics, providers and settings serving low income and underserved populations. Any other clinic or private practice setting in which at least 50 percent of the Oral Health Practitioner's total patient base for the clinic or practice setting consists of patients who meet the definitions of low-income, uninsured or underserved. This includes mobile dental units
6. Educational institutions that provide oral health training

## **II. Oral Health Practitioner Requirements and Educational Training Programs**

No changes are recommended to existing statute on this issue. The work group finds that the Board of Dentistry has sufficient statutory authority to fulfill its responsibilities for the approval of oral health practitioner training programs and licensure testing. Both the University of Minnesota and Minnesota State Colleges and Universities System representatives indicated that they will be able to meet the necessary educational requirements, training oral health practitioners to a level of competency that meets the licensing requirements, licensing exams and beginning level of practice.

## **III. Oral Health Practitioner Scope of Practice and Level of Supervision**

- A. Services performed by the oral health practitioner shall be limited to the preventive, primary diagnostic, educational, palliative, therapeutic and restorative oral health services included in Table 1 (page 10) and allowed under the supervision levels listed, except as may be further restricted by the collaborative management agreement between an oral health practitioner and a collaborating dentist.
- B. Oral health practitioners may prescribe, administer and dispense analgesic, anti-inflammatory and antibiotic medications only by a protocol defined in the collaborative management agreement between an oral health practitioner and the collaborating dentist.
- C. Collaborative Management Agreements  
The collaborating dentist must be actively engaged with the oral health practitioner with whom they have a collaborative management agreement.

All collaborative management agreements must include the following elements:

1. Date of agreement and/or renewal
2. Name, address, phone, email, license number, and degree/certification of the oral health practitioner and the collaborating dentist
3. Settings where services will be provided and the population(s) served
4. Type/scope of services that will be provided and level of supervision of/by oral health practitioner
5. Consultation requirements, including mode: in person, by telephone, email, tele-dentistry, etc.
6. Plan for meeting state radiological practice standards
7. Ownership, initiation, maintenance and storage of dental records
8. Delegation of dental/supervisory responsibilities



9. Standing orders and protocols
10. Provisions for billing and reimbursement, including provider ID numbers
11. Description of financial arrangements
12. Provisions for acquisition of and payment for program supplies
13. Protocol for acquisition and dispensing of items requiring a prescription
14. Signatures of all parties
15. Number of staff that the oral health practitioner may supervise
16. Requirement that collaborating dentist accept referred patients from oral health practitioner, if in active practice, or specific referral arrangements if dentist is not actively practicing
17. Schedule for dentist review of oral health practitioner charts
18. Referral pathway – emergency, routine, specialty
19. Annual review of agreement
20. Documentation of liability insurance for both dentists and oral health practitioners

- D. Supervision of Registered Dental Assistants. Oral health practitioners shall be allowed to supervise up to four registered dental assistants in their practice. Statute should be amended to add this provision.

**IV. Economic Impact of Oral Health Practitioners on the Provision of Dental Services and Access**

MDH, the Board of Dentistry and institutions educating oral health practitioners should continue developing models to capture and analyze the economic impact of oral health practitioner practice on the delivery of dental services and access to those services.

**V. Oral Health Practitioner Evaluation Process**

- A. MDH and/or the Board of Dentistry plan to begin evaluation activities of oral health practitioner practice by the end of 2011, and also track oral health practitioner education programs once they begin in 2009. The oral health practitioner evaluation should focus on activities and impacts of the cohort of oral health practitioners, their activities and selected patient/practice outcomes, including patient safety.
- B. Oral health practitioners and their collaborating dentists should be required to annually submit their collaborative management agreements to the Board of Dentistry. The Board of Dentistry and/or MDH should include analysis of collaborative management agreements in all evaluation efforts.

**VI. Oral Health Practitioner Licensure and Regulatory Requirements**

- A. The Board of Dentistry two-year licensing fee for oral health practitioners should be set in statute at an amount not to exceed \$240.
- B. No foreign trained dental therapists or similar professionals may be licensed as oral health practitioners until the board provides further clarification of licensing requirements for foreign trained dental therapists or similar professionals.

<b>Table 1 - Oral Health Practitioner Scope of Practice and Level of Supervision</b>			
<b>Oral Health Practitioner Scope of Practice Under General Level of Supervision</b>			
<b>Prevention, Palliative, Diagnostic, Assessment</b>	<b>Restorative</b>	<b>Surgical</b>	<b>Prescribe per protocol</b>
Examination Evaluation Assessment Treatment planning Rendering a diagnosis	Cavity Preparation Class I - V	Extractions: Primary and Permanent Teeth	Analgesics: Prescribe, Administer, Dispense
Oral Health Instruction	Restoration of Primary and Permanent Teeth Classes I - V	Suture Placement and Removal	Anti-inflammatory: Prescribe, Administer, Dispense
Radiographs	Placement of Temporary Crowns	Dressing Change	Antibiotics: Prescribe, Administer, Dispense
Prophylaxis	Placement of Temporary Restorations	Brush Biopsies	
Nutritional Counseling/Dietary Analysis	Preparation and Placement of Preformed Crowns	Tooth Re-implantation and Stabilization	
Fabrication of Athletic Mouth guard	Pulpotomies on Primary Teeth	Incision and Drainage of Abscess	
Fluoride Application – Topical and Varnish	Direct Pulp Capping: Primary and Permanent Teeth	Scaling/Root Planing	
Full Mouth Debridement	Indirect Pulp Capping: Primary and Permanent Teeth		
Palliative (Emergency) Treatment of Dental Pain	Repair of Defective Prosthetic Appliances		
Perio Maintenance	Re-cementing of Permanent Crowns		
Pulp Vitality Testing	Nitrous Oxide		
Application of Desensitizing Medicament/Resin	House/Extended Care Facility/Hospital Visit		
Preliminary Charting of the Oral Cavity	Soft Tissue Reline-chair side		
Sealants	Soft Tissue Conditioning		
Space maintainer removal	Atraumatic restorative technique		
	Opening permanent tooth for pulpal debridement and opening chamber		
<b>Oral Health Practitioner Scope of Practice Under OTHER Levels of Supervision</b>			
Fabrication of Soft Occlusal Guard - Level of supervision was unable to be determined			
Space maintainer placement – This procedure requires indirect supervision			
<b>Procedures Voted to Be Removed from the Proposed Oral Health Practitioner Scope of Practice</b>			
	Medical immobilization	Root tip removal	

## Section 1 – Background

The 2008 Minnesota legislature passed legislation establishing a new oral health practitioner discipline, licensed by the Minnesota Board of Dentistry (Board) and working under the supervision of a dentist pursuant to a written collaborative management agreement (Appendix A). The legislation also created a work group to develop recommendations and legislation to specify the training and practice details for oral health practitioners and report to the 2009 legislature. The Minnesota Department of Health's (MDH) Office of Rural Health & Primary Care (ORHPC), in consultation with the Minnesota Board of Dentistry, convened and hosted the 13-member work group created in law. The 2008 law required that the work group recommendations include an implementation schedule that allows for enrollment of students in oral health practitioner educational programs by the fall of 2009. The group was charged with completing its work by December 15, 2008, at which time it dissolved. This report fulfills the MDH and Board requirement to report the work group's recommendations and submit proposed legislation to the legislature by January 15, 2009.

The oral health practitioner statute, M.S. 150A.061 (Appendix A) specifies that oral health practitioners be graduates of accredited educational programs, pass a comprehensive, competency-based clinical examination that is approved by the Board of Dentistry and practice in settings serving low-income, uninsured and underserved patients, or in a dental health professional shortage area as determined by the commissioner of health.

The work group was charged with reviewing research on mid-level practitioners, and to the extent possible, basing its recommendations on evidence-based strategies most likely to:

1. Improve access to needed oral health services for low-income, uninsured and underserved patients
2. Control the costs of education and dental services
3. Preserve quality of care and
4. Protect patients from harm.

The work group membership included two representatives of the University of Minnesota, two representatives of the Minnesota State Colleges and Universities, one representative of the Board of Dentistry, two representatives of the Minnesota Dental Association, one representative of the Minnesota Dental Hygienists' Association, two representatives of the Minnesota Safety Net Coalition, one representative of the Minnesota Academy of Pediatric Dentists, one representative of the commissioner of health and one representative of the commissioner of human services (Appendix B). At its first meeting the work group elected Joan Sheppard, D.D.S., as its chair.

Between August 8 and December 15, 2008, the work group met eight times to discuss and develop recommendations on the following issues identified in the legislation (Appendix A):

1. Necessary education and competencies, including clinical training requirements, faculty expertise, and facilities, as well as the appropriate program accreditation, licensure and regulatory requirements, including licensing fees;

2. Scope of practice and level of supervision, including medications that may be prescribed, dispensed or administered; extractions, and limitations/level of supervision; all of which should be included in a collaborative management agreement;
3. Criteria for determining in which practice settings oral health practitioners should be authorized to practice in order to improve access to dental care for low-income, uninsured, and underserved populations, including a definition of “underserved;”
4. An assessment of the economic impact of oral health practitioners to the provision of dental services and access to these services; and
5. An evaluation process that includes clearly defined outcomes and a process for assessing whether these outcomes were successfully met.

Throughout the process, input from interested parties and work group members was actively solicited and all materials were posted on the Oral Health Practitioner Web site ([www.health.state.mn.us/healthreform/oralhealth](http://www.health.state.mn.us/healthreform/oralhealth)). Public input received by the work group’s dissolution date of December 15, 2008, is also posted on this site. Correspondence and other materials submitted by members are included in the appendix to this report. All meetings were open to the public and the audience ranged from 20-60 individuals at each meeting.

The work group initially proposed to discuss and develop recommendations using consensus. However, it became evident that consensus did not exist regarding: definition of uninsured populations; which practice settings oral health practitioners would be authorized to practice; scope of practice; and minimum level of supervision required. Ultimately, work group members reached decisions by voting to determine procedures to be included in the scope of practice and level of supervision.

The recommendations of the work group include only items receiving consensus or a majority vote of the 13-member work group, i.e., a majority vote of the group required seven or more votes. In addition to the recommendations themselves, the report provides rationale for both majority and dissenting opinions. The correspondence and proposals from members (Appendix H and I) capture much of the essence of the points made in work group discussion.

The legislation directed the work group to review existing mid-level dental practitioner programs in other countries and in Alaska. The work group received journal articles and a literature review of other countries’ experience with mid-level dental providers. Several work group members also traveled to Canada, New Zealand and Great Britain to learn about their mid-level dental programs. Members contributed their perspectives on these programs to the discussion. Appendix F summarizes information on mid-level dental provider programs in Alaska, Canada, Great Britain and New Zealand.

The work group reviewed draft legislation developed jointly by MDH, the Board and Senate Counsel.

At the conclusion of its November 14 meeting, which was devoted to reviewing items voted on

by members and completing work group recommendations, the work group facilitator invited members to work together before the December 5 meeting and attempt to develop comprehensive alternate proposals that could win consensus support from the work group. Three proposals from the membership were developed and circulated to the work group, but none received support as a substitute for the recommendations developed in the formal work group process. Two of the alternate proposals and an earlier version of the third proposal (author's request) are included in Appendix I.

## **Section II – Requirements to Practice in Underserved Areas**

As a condition of being granted authority to practice, the oral health practitioner statute (M.S. 150A.061, Subd. 3) requires oral health practitioners to agree to practice in settings serving low-income, uninsured and underserved patients or in a dental health professional shortage area as determined by the commissioner of health.

### **Background and Discussion:**

The 2008 oral health practitioner legislation assigned the work group to make recommendations and propose legislation that states the criteria for determining in which practice settings an oral health practitioner should be authorized to practice in order to improve access to dental care for low-income, uninsured and underserved populations.

The work group reviewed the draft definitions of low-income, uninsured and underserved populations provided by staff and the Safety Net Coalition (Appendix D).

### **Conclusions and Recommendations:**

A. Oral Health Practitioners will serve the following populations:

1. **Low-income:** Minnesotans at or below the upper limit of Minnesota Health Care Programs, which is currently 275 percent of the Federal Poverty Limit
2. **Uninsured:** People of low-income without public, government or private dental insurance
3. **Underserved:** Individuals with significant barriers to receiving dental care
4. **Dental Health Professional Shortage Areas:** Minnesotans that live in areas meeting criteria defined by the U.S. Department of Health and Human Services (Health Resources and Services Administration, 1993)

B. Oral Health Practitioners will be authorized to practice in the following settings:

1. Critical Access Dental Providers (CADP) - Settings and providers eligible for payments under Minnesota Department of Human Services (DHS) criteria for CADP designation.

As of FY 2008, a total of 168 dentists have been enrolled in the CADP, with 58 dental providers continuously enrolled (DHS, 2008).

2. Dental hygiene collaborative practice settings - Settings and providers eligible for collaborative dental hygiene practice arrangements are permitted:

*A “health care facility, program, or nonprofit organization” is limited to a hospital; nursing home; home health agency; group home serving the elderly, disabled, or juveniles; state-operated facility licensed by the commissioner of human services or the commissioner of corrections; and federal, state, or local public health facility, community clinic, tribal clinic, school authority, Head Start program, or nonprofit organization that serves individuals who are uninsured or who are Minnesota health care public program recipients. (Minnesota Statutes, section 150A.10)*

**The work group added medical and assisted living facilities to this list.**

3. Military and Veterans Administration hospital, clinics and care settings
4. Patient homes - In the patient’s home or residence, when the patient is homebound, or receiving or eligible to receive home care services or home-and-community-based waived services, regardless of income
5. Clinics, providers and settings serving low income and underserved populations. Any other clinic or private practice setting in which at least 50 percent of the oral health practitioner’s total patient base for the clinic or practice setting consists of patients who meet the definitions of low-income, uninsured or underserved. This includes mobile dental units
6. Educational institutions that provide oral health training.

### **Section III - Oral Health Practitioner Requirements and Educational Training Programs**

Statute requires that oral health practitioners be graduates of an oral health practitioner educational program that is accredited by a national accreditation organization and approved by the Board of Dentistry, or a program accredited by the Commission on Dental Accreditation. Oral health practitioners must also pass a comprehensive, competency-based clinical examination that is approved by the board and administered independently of an institution providing oral health. The 2008 oral health practitioner legislation charged the work group to recommend and propose legislation that states the necessary education and competencies, including clinical training, faculty expertise and facilities, and the appropriate program accreditation.

## **Background and Discussion:**

The work group devoted a full meeting to discussion of educational issues and related requirements for oral health practitioners. The work group heard presentations from the University of Minnesota School of Dentistry and from the partnership between Metropolitan State University and Normandale Community College, members of the Minnesota State Colleges and Universities system (MnSCU). The vision of both academic institutions is to utilize their curriculum, faculty expertise and facilities to train new members of the dental health care team who are competent and ready to practice by 2011. The Board presented a draft time line to the work group that included proposed steps for approving education programs until such time as the Commission on Dental Accreditation establishes a national accreditation process (Table 2, p.17). Other potential programs (yet to be developed) that meet the established standards will also be considered for acceptance as oral health practitioner training sites.

## **Planned Oral Health Practitioner Education Programs**

The Metropolitan State University program proposes to educate 12-15 oral health practitioners per year through a 26-month masters of science in oral health care. Admission requirements include a bachelor's degree, an active dental hygiene license, restorative functions certification, and 2400 hours of clinical practice.

The University of Minnesota proposes to train 10 oral health practitioners per year, through either a 40-month bachelor of science or a 28-month Master's program. The bachelor's program would be available to high school graduates or equivalent, while the professional master's degree would require a bachelor's degree and a pre-professional core curriculum for acceptance.

The University of Minnesota School of Dentistry and Metropolitan State University/Normandale Community College met prior to the work group meeting on oral health practitioner education, and stated to the work group meeting that both programs can coexist, reflecting that differences are healthy and viable. Both programs will seek accreditation and provide didactic and clinical training to meet the minimum competencies as defined by the oral health practitioner license.

## **Approval of Education Programs**

Official accreditation of programs will not be possible until the programs are established and in the process of training oral health practitioners. The Minnesota Board of Dentistry (Board) will establish an interim process to recognize institutions and programs. It is expected that the recognized clinical testing organizations will develop an exam specific to the competencies required for the oral health practitioner. This will be resolved as the programs progress and does not require further legislation. Board requirements, including licensure and regulatory requirements, will be accomplished through integrating the oral health practitioner licensing criteria and fees into the Dental Practice Act.

## **Accredited Oral Health Practitioner Training Programs**

Accreditation of existing dental education programs is under the jurisdiction of the Commission on Dental Accreditation (CODA). Since Minnesota's oral health practitioner is a new dental professional, CODA does not yet have an accreditation program for oral health practitioners. If CODA adopts an oral health practitioner accreditation process; the earliest time frame that new educational programs can usually achieve accreditation is upon graduation of their first class. Both the University of Minnesota and MnSCU programs will seek CODA accreditation when it becomes available.

If the CODA oral health practitioner accreditation is not available, the Minnesota Board of Dentistry will perform this oversight function. The Board plans approval of an interim accrediting body for educational programs, if needed. Oral health practitioner programs must be offered within institutions that are accredited by recognized and respected organizations. Multiple oral health practitioner program formats will be eligible for accreditation if their educational content and standards meet criteria for the oral health practitioner scope of practice.

## **Comprehensive Competency Based Clinical Examinations**

The educational programs must ensure that graduates have achieved minimal clinical competence in the procedures included in the oral health practitioner scope of practice. Some of these procedures can be tested within the program's curriculum by program faculty. The Board relies upon outside, third party objective examinations for determining a candidate's competence, or readiness to practice. The Board has contacted external testing bodies, who have indicated their interest in developing and administering oral health practitioner didactic and clinical competency testing examinations. The competency-based clinical examination to be developed will include many items that currently exist in other dental and dental hygiene clinical exams and may possibly be integrated into those exam schedules.

## **Additional Requirements Established by the Board**

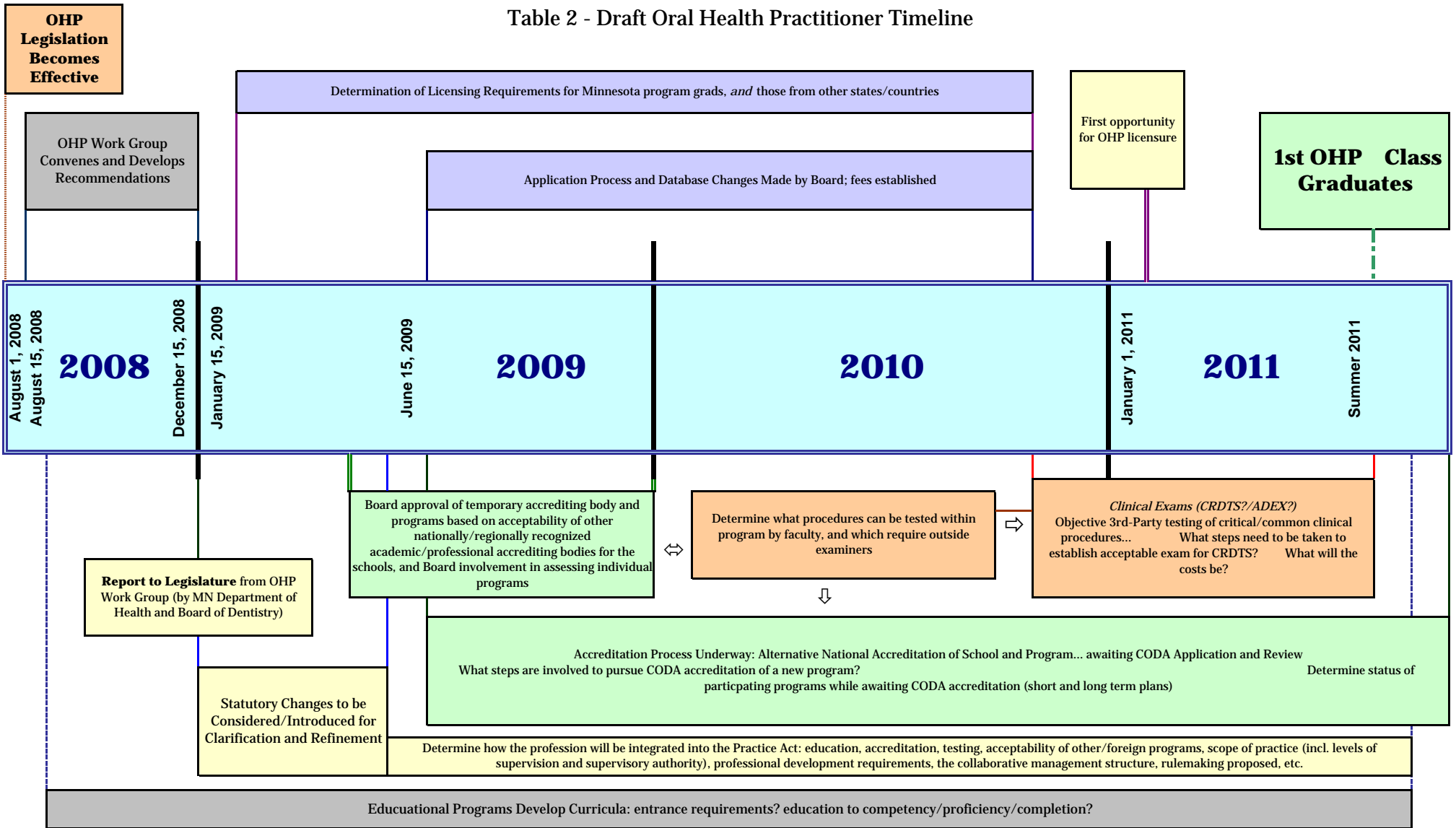
The Minnesota Board of Dentistry is the state agency responsible for protecting the public through regulation of dental professionals. As such, the Board's primary interest is ensuring that individuals licensed as oral health practitioners are competent to practice upon licensure, and maintain that competence throughout their careers. The Board will establish professional development (continuing education) requirements that are consistent with those for dentists, dental hygienists and registered dental assistants.

## **Conclusions and Recommendations:**

Both the University of Minnesota and Metropolitan State University/Normandale Community College representatives indicated that they will be capable of meeting the necessary educational requirements, training students to a level of competency to meet the oral health practitioner license requirements, and preparing graduates to successfully pass licensing exams and begin practice. No changes are needed to existing statute. As accreditation developments occur, the Board may need to consider further action.



Table 2 - Draft Oral Health Practitioner Timeline



## Section IV – Oral Health Practitioner Scope of Practice and Level of Supervision

The Oral Health Practitioner legislation directs the work group to recommend and propose legislation that defines the scope of practice; level of supervision; medications that may be prescribed, administered and dispensed; and extractions that may be performed, all under the auspices of a collaborative management agreement.

### Background and Discussion:

The Board of Dentistry developed a list of proposed procedures to be performed by the oral health practitioner under a collaborative management agreement with a supervising dentist. Supervision levels are defined in rule, specifying supervision as personal, direct, indirect or general. Appendix E presents the levels of dental supervision in Minnesota Rule 3100.0100, Subd. 21.

In order to facilitate the discussion of the proposed procedures, staff suggested that work group members begin their review assuming a general level of supervision. The work group identified procedures that should receive further consideration. These included procedures that should be added to the scope of practice, those that should be removed from the scope, and those that should not be performed under general supervision.

Due to their total integration in dental practice, these issues of scope of practice, level of supervision, medications and extractions were considered and discussed together at meeting 3 on September 5, 2008 and were revisited at meetings 6 and 7 in the context of the educational programs and competencies, as well as level of supervision of, and by oral health practitioners in a collaborative management agreement.

Services included in the oral health practitioner scope of practice will be limited to those included in Table 1 page 21 (also included in the Executive Summary on page 11.) The work group discussed these procedures and a majority elected to authorize the specified procedures under the level of supervision prescribed and conducted within a collaborative management agreement between oral health practitioners and the Minnesota-licensed dentist with whom they will be collaborating.

Eighteen of the 20 procedures in the **preventive, palliative, diagnostic and assessment categories** were included in the scope of practice under general level of supervision by majority vote. Fabrication of a soft occlusal guard and placement of a space maintainer were included by a majority vote, but a recommendation for level of supervision was not determined, as no supervisory option received a majority vote. An additional work group vote on level of supervision at meeting 8 on December 5 resulted in selection of indirect supervision for placement of a space maintainer by a plurality vote and no clear delineation of supervisory level for fabrication of soft occlusal guard.

Thirty-four of the 35 procedures in the **restorative/operative category** were included in the scope of practice under general supervision by majority vote. Behavior management, a term listed in the inventory of procedures considered by the work group, was clarified to include only

the medical immobilization aspect of behavior management. Medical immobilization was then considered by the work group and not included in the oral health practitioner scope of practice.

Eight of the 10 procedures in the **surgical category** were approved under general supervision by majority vote. Brush biopsy was included in the scope of practice by a majority vote, and allowed under general supervision by a plurality vote. The work group voted to exclude root tip removal from the oral health practitioner scope of practice.

Table 3, beginning on page 21, documents work group member votes for each of the procedures, as well as the perceived benefits and risks, identified by one or more work group members, of including specific procedures in the oral health practitioner scope of practice. This 10 page table provides work group members' rationale submitted in support of and in dissent from the group's scope of practice and supervision recommendations.

The work group determined that the procedures included in the scope of practice should be applied to either children or adults as appropriate.

**Prescribing authority** - Following staff consultation with the Minnesota Board of Pharmacy, two prescribing options were presented to the work group for consideration: an option allowing the oral health practitioner to have independent prescribing authority and an option for prescribing per protocol. The work group determined that the collaborative management agreement requirement rules out independent prescribing authority. Prescribing per protocol was then included in the oral health practitioner scope of practice on a majority vote. Specific protocols are to be included in the collaborative management agreement and will define abilities and limitations placed upon the oral health practitioner to prescribe, administer and dispense only analgesic, anti-inflammatory and antibiotic medications.

<b>Table 1 - Oral Health Practitioner Scope of Practice and Level of Supervision</b>			
<b>Oral Health Practitioner Scope of Practice Under General Level of Supervision</b>			
<b>Prevention, Palliative, Diagnostic, Assessment</b>	<b>Restorative</b>	<b>Surgical</b>	<b>Prescribe per protocol</b>
Examination Evaluation Assessment Treatment planning Rendering a diagnosis	Cavity Preparation Class I - V	Extractions: Primary and Permanent Teeth	Analgesics: Prescribe, Administer, Dispense
Oral Health Instruction	Restoration of Primary and Permanent Teeth Classes I - V	Suture Placement and Removal	Anti-inflammatory: Prescribe, Administer, Dispense
Radiographs	Placement of Temporary Crowns	Dressing Change	Antibiotics: Prescribe, Administer, Dispense
Prophylaxis	Placement of Temporary Restorations	Brush Biopsies	
Nutritional Counseling/Dietary Analysis	Preparation and Placement of Preformed Crowns	Tooth Re-implantation and Stabilization	
Fabrication of Athletic Mouth Guard	Pulpotomies on Primary Teeth	Incision and Drainage of Abscess	
Fluoride Application – Topical and Varnish	Direct Pulp Capping: Primary and Permanent Teeth	Scaling/Root Planing	
Full Mouth Debridement	Indirect Pulp Capping: Primary and Permanent Teeth		
Palliative (Emergency) Treatment of Dental Pain	Repair of Defective Prosthetic Appliances		
Perio Maintenance	Re-cementing of Permanent Crowns		
Pulp Vitality Testing	Nitrous Oxide		
Application of Desensitizing Medicament/Resin	House/Extended Care Facility/Hospital Visit		
Preliminary Charting of the Oral Cavity	Soft Tissue Reline-chair side		
Sealants	Soft Tissue Conditioning		
	Atraumatic restorative technique		
<b>ORAL HEALTH PRACTITIONER Scope of Practice Under OTHER Levels of Supervision</b>			
Fabrication of Soft Occlusal Guard - Level of supervision was unable to be determined			
Space maintainer placement – This procedure requires indirect supervision determined by plurality vote			
<b>Procedures Voted to Be Removed from the Proposed Oral Health Practitioner Scope of Practice</b>			
	Medical immobilization	Root tip removal	

### **Table 3– Votes and Perceived Benefits and Risks Identified by One or More Work Group Members**

The Oral Health Practitioner Work Group voted on a list of procedures to include/exclude from the proposed oral health practitioner scope of practice. Perceived benefits and risks listed below were identified by one or more work group members.

#### **Significant benefits identified by one or more work group members include:**

1. The oral health practitioner will provide access to a broad array of needed services in community settings, rural communities and where no dentist is available
2. There will be improved ability to provide care in non-traditional settings, such as Head Start, institutions, reservations and remote areas
3. The dentist's time will be freed up to allow practice at the top of their license
4. General access will be improved: patient travel time and resources will be reduced
5. No safety or quality problems have been documented for oral health practitioners in over 50 countries
6. Urgent dental care access will be improved; timeliness and efficacy of care will be improved
7. System capacity and cost performance will be improved
8. Complications of no dental treatment may be avoided
9. Disease management capability will increase
10. The dentist will be a collaborative partner in care through the collaborative management agreement
11. Oral health practitioner procedures are consistent with current care delivery system assuming appropriate training, supervision and guidance.

#### **Significant risks identified by one or more work group members include:**

1. Cost /burden of training on the educational system
2. Difficulty/complications of performing procedures without a diagnosis, which is perceived to be exclusively the purview of the dentist
3. Improper diagnosis
4. Irreversibility of procedures may result in unnecessary risk to patients
5. Potential inability to train oral health practitioners appropriately
6. Complexity of patient needs
7. Concerns about follow-up, referrals.

#### **Additional identified concerns that support indirect or direct levels of supervision:**

1. Consider deferring, initially, to a more conservative level of supervision. Regular review and evaluation will allow for the possibility of expanded supervision levels in the future.
2. Training students to operate under general supervision requires more intensive education and places greater requirements on the educational system.
3. Allowing extractions under general supervision may create a patient safety risk.

<b>Preventative, Palliative, Diagnostic and Assessment Procedures</b>							
	<b>Y</b>	<b>N</b>	<b>Supervision</b>			<b>Significant benefits from one or more work group member(s)</b>	<b>Significant risks from one or more work group member(s)</b>
			<b>G</b>	<b>I</b>	<b>D</b>		
1a. Examination 1b. Evaluation 1c. Assessment 1d. Treatment planning 1e. Rendering a diagnosis	9 13 13 8 8	4 0 0 5 4	9 11 11 8 7	0 2 2 0 1		<p>The oral health practitioner needs to assess/evaluate and develop a clinically appropriate treatment plan.</p> <p>Primary care requires a dental exam: system will determine quality.</p> <p>The oral health practitioner will be licensed.</p> <p>The oral health practitioner will be taught to scope of practice, diagnosis is within the scope.</p> <p>The oral health practitioner will practice under supervision of a dentist.</p> <p>Diagnosis is a critical factor to improved access</p> <p>oral health practitioner needs to be able to order diagnostic tests.</p> <p>Given a more systematic approach to supervision, care guidelines and quality assurance, one could make a plausible argument that the level of risks associated with unexplained variation in diagnosis and treatment would be reduced.</p>	<p>Our patients deserve the best plan we can provide them and it is only with hindsight that we can determine if a doctor's level diagnosis is required.</p> <p>The greatest price could result from an uninformed or missed diagnosis.</p> <p>If doing diagnosis, requires the highest supervision level.</p> <p>Great burden on educational system – not in educational scope.</p> <p>Complex patient mix</p> <p>Needs additional training and adequate supervision for comprehensive diagnosis</p> <p>Patients require a comprehensive diagnosis before treatment: medical, psychological and dental; with this information diagnoses are made for each condition present and a sequentially ordered treatment plan is formulated.</p> <p>Without being able to formulate a comprehensive list of differential diagnoses a definitive diagnosis cannot be made as a result, a patient's treatment will be delayed or he/she will be mistreated.</p> <p>Patient examination and diagnosis is the purview of the dentist; conducting this procedure requires a knowledge base that only a fully trained dentist possesses.</p> <p>Evaluation and assessment - oral health practitioner would be in an excellent position to accumulate information – oral hygiene assessment, dental radiographs, periodontal probing depths, and evidence of dental caries; this information would be presented to the dentist who combines these data with other, more complex health and medical history data to accurately render a diagnosis and prepare a treatment plan.</p> <p>Same as if a dentist performed procedure</p>
2. Oral Health Instruction	13	0	13			<p>Under general supervision, patients will receive valuable information from a health care provider with unique knowledge – complete understanding of the etiology of dental caries and preventive techniques proven to reduce the disease process.</p> <p>With a greater sensitivity to cultural differences, the oral health practitioner will be able to provide explanations that are more effective in motivating the patient to take a greater role in maintaining his/her oral health.</p>	Limited

	Y	N	Supervision			Significant benefits from one or more work group member(s)	Significant risks from one or more work group member(s)
			G	I	D		
3. Radiographs	13		12	1		Prevention is the best medicine. This procedure is necessary for a complete evaluation oral health practitioner would be able to maximize the efficiency of the dentist's time.	Limited
4. Prophylaxis	11	2	11			Prevention is the best medicine. Necessary for examination of patient with plaque or stain accumulation.	To ensure that the education program of the oral health practitioner is of a length that is economically responsible, provides an opportunity to impact on the cost of dental care for the underserved, and does not add further to the abundance of dental hygienists, dental prophylaxis is not included in the oral health practitioner scope of practice.
5. Nutritional Counseling/Dietary Analysis	13		13			Prevention is the best medicine. Effective use of the knowledge of oral health practitioners; lets patients experience the high level of importance the oral health practitioner places on disease prevention and health.	Limited
6. Fabrication of Soft Occlusal Guard 2 <sup>nd</sup> Tiebreaker Vote	8	5	3	1	3	Allowing oral health practitioners the opportunity to fabricate athletic mouth guards would be an appropriate responsibility.	Beyond the oral health practitioner scope, joint damage could result. This procedure is very complicated and only a dentist can judge the appropriateness of this type of treatment and whether a more definitive treatment should be instituted.
7. Fabrication of Athletic Mouthguard	13		12		1	Moms do this at home with store bought models; the oral health practitioner used to working in the mouth is surely a better choice.	
8. Fluoride Application - Topical	13		13			Prevention is the best medicine. It reinforces the oral health practitioner role in caring for "at risk patients." Dental hygienists currently do under general supervision.	
9. Fluoride Application - Varnish	13		13			Prevention is the best medicine.. It reinforces the oral health practitioner role in caring for "at risk patients." Dental hygienists currently do under general supervision.	
10. Full Mouth Debridement	7	6	7			Prevention is the best medicine. The procedure provided by an oral health practitioner may be more convenient.	Only if the oral health practitioner is a dental hygienist This is adult care. Cost: Dental Hygienists are available to do this Adds to educational cost Increases cost of treatment due to inefficiency of practice To ensure that the education program of the oral health practitioner is of a length that is economically responsible, provides an opportunity to impact on the cost of dental care for the underserved, and does not add further to the abundance of dental hygienists, dental prophylaxis is not included in the oral health practitioner scope of practice.

	Y	N	Supervision			Significant benefits from one or more work group member(s)	Significant risks from one or more work group member(s)
			G	I	D		
11. Palliative (Emergency) Treatment of Dental Pain	10	3	11	2	1		This is too vague a description to comment on whether it would be a benefit or risk for patients to receive under a general level of supervision.
12. Pulp Vitality Testing	13		11	2		Test contributes to treatment planning	Limited
13. Application of Desensitizing Medicament/Resin	13		10	4	1	Appropriate to use for pain control and prevention	After the dentist completes a thorough examination and determines that a desensitizing agent is the indicated treatment, an oral health practitioner could apply the appropriate material to a patient's teeth. Indirect for non-emergency, tooth loss or vitality could happen General supervision only for emergency
14. Preliminary Charting of the Oral Cavity	13		13			Increases efficiency, expedites care	Limited
15. Sealants	13		13			Already permitted for dental hygienists Increases efficiency	
16. Space maintainer placement 2 <sup>nd</sup> Tiebreaker Vote	9	4	1 2	4 6	5 4	Performed at time of extraction Increased continuity of care	Inappropriate timing Adds significantly to training time and cost Usually placed at time of extraction Minimal with technical training in assessment of compliance An inappropriately placed appliance compromises the sequence of permanent tooth eruption, irreversibly damaging the periodontal structures of involved teeth, and interfering with a patient's occlusion.
17. Space maintainer removal	12		8	3	1	For emergency purposes Decrease damage that could be caused by failure of appliance	Non-emergency timing is beyond oral health practitioner scope. Arch space loss and even tooth loss could result Requires diagnosis to remove Removing a space maintainer before treatment is completed interferes with the eruption pattern of a patient's permanent teeth.

**Key:** Y = include in scope  
N = exclude from scope  
G = allow under general supervision  
I = allow under indirect supervision  
D = allow under direct supervision



<b>Restorative/Operative Procedures</b>							
	<b>Y</b>	<b>N</b>	<b>G</b>	<b>I</b>	<b>D</b>	<b>Significant benefits from one or more work group member(s)</b>	<b>Significant risks from one or more work group member(s)</b>
19. Cavity Preparation Class I - V	13		8	5		Procedure is used to reduce pain, infection and dental caries.	These procedures are irreversible. Because of inherent limitations that both clinical examinations and dental radiographs have, the unpredictability of restorative treatments is more the rule than the exception. Once the internal structures of a tooth are accessed by preparation, intra-operative examinations and diagnoses need to be preformed. It is only after making access into a tooth that a definitive diagnosis can be made and a revised treatment plan formulated. This is most critical when the tooth pulp space is violated (not an infrequent event when caring for patients who have not regularly accessed dental care) and some form of an endodontic procedure must be initiated.
20. Restoration of Primary Teeth Class I - V	13		8	5		Procedure is used to reduce pain, infection and dental caries.	Same as Cavity Preparation (above)
21. Restoration of Permanent Teeth Class I – V	13		8	5		Procedure is used to reduce pain, infection and dental caries.	Same as Cavity Preparation (above)
22. Placement of Temporary Crowns	13		8	5		Procedure is used to reduce pain, infection and dental caries.	These procedures are irreversible; the inappropriate placement of a temporary crown could weaken the structural integrity of the tooth, contain active dental caries, or disrupt the patient's occlusion.
23. Placement of Temporary Restorations	13		8	5		Procedure is used to reduce pain, infection and dental caries.	Same as Placement of Temporary Crowns (above)
24. Preparation of Preformed Crowns	12	1	7	4	1		
25. Placement of Preformed Crowns	13		7	4	1	This is a basic restorative procedure. Needed to meet patient needs Procedure is used to reduce pain, infection and dental caries.	Greater risk of pulpal involvement Minimal with appropriate training These procedures are irreversible; inappropriate placement of a temporary crown could weaken the structural integrity of the tooth, contain active dental caries, or disrupt the patient's occlusion.
26. Pulpotomies on Primary Teeth	13		8	5		Procedure is used to reduce pain, infection and dental caries.	These procedures are irreversible. Improper diagnosis of the condition of a primary tooth's pulp status causes significant contained infection. This can spread to spaces within the face, head and neck that can be life threatening. Such a reaction can permanently damage the enamel of underlying adult tooth and delays proper tooth eruption.

	Y	N	Supervision			Significant benefits from one or more work group member(s)	Significant risks from one or more work group member(s)
			G	I	D		
27. Direct Pulp Capping (Primary Teeth)	12	1	8	4	1	Procedure is used to prevent pain and infection.	This is a very dubious procedure. These procedures are irreversible. Same as Pulpotomies on Primary Teeth (above)
28. Direct Pulp Capping (Permanent Teeth)	11	2	8	2	2	Procedure is used to prevent pain and infection and promote pulpal healing.	These procedures are irreversible. Same as Pulpotomies on Primary Teeth (above)
29. Indirect Pulp Capping (Primary Teeth)	13		8	4	1	Procedure is used to prevent pain and infection and promote pulpal healing.	These procedures are irreversible. Same as Pulpotomies on Primary Teeth (above)
30. Indirect Pulp Capping (Permanent Teeth)	13		9	3	1	Procedure is used to prevent pain and infection and promote pulpal healing.	These procedures are irreversible. Same as Pulpotomies on Primary Teeth (above)
31. Repair of Defective Prosthetic Appliances	9	4	8		2	Repair improves esthetics and function There should be a plan to refer to a dentist if appliance replacement is needed.	Occlusal, joint periodontal or tooth problems could result Repair could result in poor fit, failure of repair Appliances break for a reason; a dentist needs to determine why the appliance is breaking. Appliance repaired incorrectly can result in trauma and affect occlusion. Potential malocclusion, fracture, lack of follow up care Without thorough pre and post treatment exam of prosthesis and tissues, patients are at risk for greater problems. Significant addition to the education hours Patients are at risk for even "greater problems." This includes: formation of epuli, destruction of periodontal structures, occlusal trauma, tooth mobility, continued growth of tumors, stripping of alveolar mucosa, etc. Non-pathological risks include: reduced ability to eat, associated tooth and soft tissue pain, bleeding and increased costs due to inappropriately rendered treatment. Even if this is limited to direct supervision, it would still require significant education and training, adding substantial additional hours to the program.

	Y	N	Supervision			Significant benefits from one or more work group member(s)	Significant risks from one or more work group member(s)
			G	I	D		
32. Re-cementing of Permanent Crowns	8	5	7		2		Decay left under crown; diagnosis is necessary Malocclusion; pulpal decay may be present and may be pulpal involvement warranting further treatment. If cemented without proper occlusion, may be difficult to remove or adjust. Causes of crown dislodgement are always indicative of a serious underlying problem (dental caries, malocclusion, fractured foundation restoration, dissolution of cement, lose of bond, ill-performed tooth preparation, etc) diagnosis is critical. An inappropriate diagnosis and treatment will predictably and frequently lead to: loss of the tooth the crown was originally cemented to, periodontal inflammation around the tooth, pulpitis of the tooth, fracture of opposing tooth, movement of adjacent teeth due to interproximal force, etc. Management of a custom fabricated crown is fundamentally different from other forms of crowns.
33. Nitrous Oxide	13		8	5		Consistent with current care delivery system Increases patient comfort Would be appropriate for oral health practitioners to administer nitrous oxide under general supervision; it would facilitate the provision of care authorized by oral health practitioners	Noncontroversial
34. Perio Maintenance	7	6	7			May decrease the need for extra staff	Tissue damage possible Already in dental hygiene scope under general supervision Cost - dental hygienist available to do this Adds to educational cost, increased length of training To ensure that the education program of the oral health practitioner is of a length that is economically responsible, provides an opportunity to impact on the cost of dental care for the underserved, and does not add further to the abundance of dental hygienists, dental prophylaxis is not included in the oral health practitioner scope of practice.
35. Scaling/Root Planing	7	6	7			May decrease the need for extra staff	Same as Perio-Maintenance (above)
36. House/Extended Care Facility Visit	11	1	8	3			Clients are very complex in an extended care facility. Expensive setting for care This is too vague a description to comment on whether it would be a benefit or risk for patients to receive under a general level of supervision.
37. Hospital Visit	10	1	7	3			(Same as House/Extended Care Facility Visit)

	Y	N	Supervision			Significant benefits from one or more work group member(s)	Significant risks from one or more work group member(s)
			G	I	D		
38. Soft Tissue Reline-Chair side	10	2	8	1	1	There should be a plan to refer to a dentist if appliance replacement is needed.	Occlusal, joint periodontal or tooth problems could result Need to diagnose tissue/appliance condition A patient's soft tissues would experience additional inflammation and become irreversibly distorted; and, because of a maladaptation of the prosthesis to the soft tissue, significant occlusal disharmony is predictable, further irritating underlying soft tissues and contributing to temporomandibular dysfunction.
39. Soft Tissue Conditioning	10	2	8	1	1	There should be a plan to refer to a dentist if appliance replacement is needed	(Same as Soft Tissue Reline-Chair side)
40. Atraumatic Restorative Technique	12	1	8	3	2	Temporary until patient accesses more direct care Based upon context of current practice This procedure is used as part of caries management for a patient who has neglected dentition. Relief of pain Patients could have their treatment initiated sooner, reducing the spread of disease and controlling mild level pain.	Patients often have multiple problems. This is not a long-term solution to decay.
41. Endo access opening-emergency (opening of a permanent tooth for pulpal debridement and opening chamber)	11	2	8	1	2	Emergency situations only Avoid use of the emergency room Relief of pain	Infection or tooth loss could occur Possible perforation of chamber Predictable and frequently noted risks associated with this treatment include spread of infection, root perforation, instrument breakage in canal, and more severe, intractable pain.

### **Surgical Procedures**

	Y	N	G	I	D	Significant benefits from one or more work group member(s)	Significant risks from one or more work group member(s)
42. Extractions (Primary Teeth)	13		7	4	1	Effective to relieve pain and infection Assists with management of developing occlusion More treatment could be provided to children Alleviate infection or crowding	Patient inconvenience for treatment of complication Risks include: root fractures, damage to adjacent teeth, bleeding from a major blood vessel, nerve damage, sinus perforation, etc. Longer training required if permanent teeth included Patient safety at risk if under general supervision oral health practitioner would have access to a trained dentist to assist in making intraoperative treatment diagnoses and clinical decisions.

	Y	N	Supervision			Significant benefits from one or more work group member(s)	Significant risks from one or more work group member(s)
			G	I	D		
43. Extractions (Permanent Teeth)	8	5	7	1		<p>Effective to relieve pain and infection</p> <p>More treatment could be provided to children</p> <p>Needed to meet needs of underserved</p> <p>Allowed in other countries</p> <p>Setting is really relevant to reach those not able to see dentist</p> <p>Geriatrics will appropriately be part of the educational program</p>	<p>Potential complications</p> <p>Extraction of permanent teeth too complex</p> <p>Primary teeth only</p> <p>Not in scope: United Kingdom does not allow</p> <p>Nursing home patients are too involved for oral health practitioner.</p> <p>Patient inconvenience for treatment of complications</p> <p>Longer training required if permanent teeth included</p> <p>Patient safety at risk if under general supervision</p> <p>Risks include: root fractures, damage to adjacent teeth, bleeding from a major blood vessel, nerve damage, sinus perforation, etc.</p> <p>The complexities of removing permanent teeth include: root fractures, damage to adjacent teeth, bleeding from a major blood vessel, nerve damage, sinus perforation, etc.</p> <p>Extraction of permanent teeth is not to be authorized</p>
44. Suture Placement	10	3	7	2	2	<p>Help wound healing</p> <p>Would occur in situations following extractions, some situations could require sutures</p> <p>Reduces complications of surgery</p>	<p>Need to do it routinely to maintain skill</p> <p>With proper training/education, guidance and supervision through collaborative management agreement, risks are minimal</p> <p>Timing is important</p> <p>Inappropriate placement of sutures prevents healing, delaying wound closure and predispose to infection.</p>
45. Suture Removal	13	0	8	3	1	<p>Registered dental hygienist can currently perform under general supervision</p> <p>Increases continuity of care</p>	<p>Timing is important</p> <p>After the dentist completes an examination and determines that it is appropriate to remove sutures, an oral health practitioner could do so, under indirect supervision</p>
46. Dressing Change	13	0	8	3	1	<p>Registered dental hygienist can currently perform under general supervision</p> <p>Increased patient comfort</p>	<p>Timing is important</p> <p>Inappropriate removal and replacement of dressings delay healing and predispose to infection</p>
47. Brush Biopsies  2 <sup>nd</sup> Tiebreaker Vote	7	5	6	0	1	<p>Registered dental hygienist can currently perform under general supervision</p> <p>Decreases oral disease</p>	<p>Follow-up is very important and sometimes difficult.</p> <p>Indications for such a biopsy are few and rare; performing such a biopsy when a more appropriate one is indicated delays a proper diagnosis and treatment</p>
48. Tooth Re-implantation	11	2	9	1	2	<p>Improves survivability of permanent tooth</p> <p>Alleviate infection or crowding</p> <p>Providing preparation for further treatment</p> <p>Oral health practitioner will be trained to know what is out of their scope</p> <p>Patients could receive care in a more timely fashion if oral health practitioners were able to provide this care under general supervision</p>	<p>Complicated</p> <p>Great burden on educational system for general supervision</p> <p>Stabilization must be done correctly</p>
49. Tooth stabilization	12	1	8	1	3		

	Y	N	Supervision			Significant benefits from one or more work group member(s)	Significant risks from one or more work group member(s)
			G	I	D		
50. Incision and Drainage of Abscess	8	5	8			Alleviate infection or crowding Relief of pain	Neural, vesicular or tissue damage and spread of infection Inadequate drainage, tissue damage Delays appropriate care Acute problem that needs diagnosis to include medication, medical condition of patient, history Careful follow up is necessary Risks include: likely spread of infection, prolonged hemorrhaging, nerve damage, and delaying appropriate care. Because antibiotics are generally indicated to properly care for this type of patient, a dentist would need to see the patient for an appropriate diagnosis and the prescribing of the medication.

### Prescribing Per Protocol

	Y	N	Pr	Ad	D	Significant benefits from one or more work group member(s)	Significant risks from one or more work group member(s)
51. Analgesics Prescribe, Administer, Dispense	12	1	12	8	9	Used to control pain	Minimal with appropriate training Gathering medical history is essential Limited to dispensing, after the dentist has completed a comprehensive examination and determined what the appropriate medication is that should be administered. Patients receiving the wrong medication or an incorrect dose have their pain relief delayed, have reduced ability to gain control of their pain, and risk experiencing an anaphylactic reaction.
52. Anti-inflammatory Prescribe, Administer, Dispense	12	1	10	8	9	Used to control pain and swelling	Same as Analgesics (above)
53. Antibiotics Prescribe, Administer, Dispense	10	3	10	7	7	Used to control pain and infection	Abuse of antibiotics has led to the reemergence of infectious diseases as a major threat This procedure needs reeling in, not letting out Minimal with appropriate training Gathering medical history is essential Same as Analgesics (above)

<b>Supervision of Registered Dental Assistants by Oral Health Practitioner</b>							
	<b>Y</b>	<b>N</b>	<b>G</b>	<b>I</b>	<b>D</b>		
54. Oral health practitioner may supervise up to 4 RDAs	8	5	6			Discussion held during work group session	Discussion held during work group session
<b>Remove from Oral Health Practitioner scope of practice</b>							
	<b>Y</b>	<b>N</b>	<b>G</b>	<b>I</b>	<b>D</b>		
55. Root tip removal	2	11	1	1		Comments not included for removed procedures	Comments not included for removed procedures
56. Medical immobilization	5	7	4	2	1	Comments not included for removed procedures	Comments not included for removed procedures

## **Collaborative Management Agreement**

Statute requires that oral health practitioners work under the supervision of a Minnesota-licensed dentist pursuant to a written collaborative management agreement. The work group agreed that all collaborative management agreements must include the following components, at minimum:

1. Date of agreement and/or renewal
2. Name, address, phone, email, license # and degrees/licensure of oral health practitioner and collaborating dentist
3. Settings where services will be provided and the population(s) served
4. Type/scope of services that will be provided and level of supervision of/by oral health practitioner
5. Consultation requirements including mode: in person, by telephone, email, telemedicine, etc.
6. Plan for meeting state radiological practice standards
7. Ownership, initiation, maintenance and storage of dental records
8. Delegation of dental/supervisory responsibilities
9. Standing orders and protocols
10. Provisions for billing and reimbursement, including provider identification numbers
11. Description of financial arrangements
12. Provisions for acquisition of and payment for program supplies
13. Protocol for acquisition and dispensation of items requiring a prescription
14. Signatures of all parties
15. Number of staff that oral health practitioner can supervise
16. Requirement that collaborating dentist accept referred patients from oral health practitioner or establish an alternative provider that will accept referred patients
17. Schedule for dentist review of oral health practitioner charts and practice performance
18. Referral pathway – emergency, routine, specialty
19. Annual review of agreement
20. Documentation of liability insurance for both dentists and oral health practitioners.

Work group members agreed that collaborating dentists must be actively engaged with oral health practitioners with whom they have a collaborative management agreement, including at a minimum, a half-day, quarterly on-site review by the collaborative dentist. For example, collaborating dentists should periodically observe the oral health practitioner providing treatment and should routinely conduct chart reviews.

Dentist work group members in smaller practices expressed interest that collaborating dentists conducting regular onsite observation visits could directly participate in patient care with the oral health practitioner. Dentist work group members in larger practice settings stated that collaborating dentists should assure active engagement and clinical support for the oral health practitioner that designates a referral pathway if the collaborating dentist is not able to directly treat patients. The collaborating dentist must ensure necessary oversight, but need not be side by side with the oral health practitioner. This view included an interest in providing collaborative opportunities for disabled dentists who can offer supervision, while they may not be able to



actively practice. (A majority vote to retain this statement occurred during the work group's review of this report at meeting 8.)

### **Conclusions and Recommendations:**

The procedures included in Table 1, except medical immobilization and root tip removal, are recommended to be included in the oral health practitioner scope of practice. All items are recommended as eligible for performance under general supervision with two exceptions:

- (1) Fabrication of soft occlusal guard: supervisory level to be determined and
- (2) Placement of a space maintainer: Indirect supervision.

Supervision categories represent the least restrictive level of supervision to be allowed for each procedure. All oral health practitioner practice will be under the supervision of a dentist pursuant to a written collaborative management agreement. Dentists may require more restrictive supervision and delineate other restrictions and variations in the collaborative agreements.

The work group recommends that an oral health practitioner may supervise up to four registered dental assistants. Statute should be amended to add this provision. (The work group considered the issue of dental hygiene supervision by oral health practitioners, but did not adopt a recommendation on this topic.)

Prescribing per protocol shall be included in the oral health practitioner scope of practice. Specific protocols are to be developed by the collaborating dentist and included in the collaborative management agreement. Protocol must define abilities and limitations placed upon the oral health practitioner to prescribe, administer, and dispense nitrous oxide, non-narcotic analgesic, anti-inflammatory, and antibiotic medications only.

## Section V- Economic Impact of Oral Health Practitioners

The oral health practitioner legislation assigned the work group to recommend and propose legislation that states the assessment of the economic impact of oral health practitioners to the provision of dental services and access to these services.

### **Background and Discussion:**

The first graduating class of oral health practitioners will not begin practice until 2011, and as of this report there are far too many unknowns to offer certainty on the economic impact of oral health practitioner entrance to the dental workforce. Several dental employers have stated their interest in hiring oral health practitioners when they become available, though these employers are not yet able to commit to a number of positions or a pay level. The Minnesota Department of Human Services (DHS) and PrimeWest Health Plan reported to the work group that they expect to reimburse oral health practitioner services, though rates have not been set. HealthPartners Dental Group stated to MDH that they intend to employ oral health practitioners. Other payers were not contacted during the work group timeframe.

The work group discussed a framework for considering economic or business case scenarios for oral health practitioner practice in a variety of settings and reviewed a list of possible variables. DHS provided the work group with information on average rates and the composite mix of procedures for its population. Several members and other stakeholders volunteered to draft scenarios for their type of practice.

The economic impact of oral health practitioners to the provision of dental services depends on a number of variables and scenarios regarding dental practice size and type, productivity (rate and number of patients seen and procedures performed), reimbursement levels, practice settings and populations seen, variability in the breadth of oral health practitioner practice, dentist to oral health practitioner ratios, composition of the dental team, supervision costs, new revenue opportunities for dentists and practices employing oral health practitioners, cost savings realized, and so on.

Given that by 2011, 22-25 oral health practitioners are expected to graduate from the University of Minnesota and MnSCU programs, the impact on access to dental services will be determined by the number of practicing oral health practitioners and the number of patients they are able to serve. The following summarizes preliminary economic scenarios submitted by work group members and interested parties. Appendix G includes more detailed information about each scenario.

1. PrimeWest Health used their 2007 dental claims and service experience, and familiarity with dental access challenges for Minnesota Health Care Program (MHCP) members, to develop an estimate of the unmet need oral health practitioners could address if they served a mix of MHCP patients. For example, a budget of \$200,000 in payments per oral health practitioner, including all related business costs, would be consistent with 681 unique patients per year receiving preventive/diagnostic or restorative services from 10 oral health practitioners, totaling 1,325 visits at an average cost of \$151 per visit.

2. Work group member, Craig Amundson, D.D.S., of HealthPartners, used DHS' 2004 statewide dental utilization data for age 0-20 and 20+ cohorts, as well as HealthPartners Dental Group's Relative Time Unit (RTU) measures of production as a means to assess the potential impact of oral health practitioner on production potential and cost. Using an oral health practitioner model for this patient group, 69 percent of the relative time unit production that can currently be performed only by a dentist would be eligible for care by an oral health practitioner. The amount is higher for children (82 percent) and lower for adults (64 percent). If the oral health practitioner is not able to provide exams, make diagnoses and prescribe treatment within their scope of practice, then the potential outlined above decreases from 69 percent to 48 percent using the same data. A separate analysis using HealthPartners dental claims data for public program enrollees produced a similar result, 68 percent.
3. Apple Tree Dental envisions that adding oral health practitioners to its oral health teams would help it deliver a full scope of services more cost-effectively. Their analysis projects that the addition of oral health practitioners to their workforce could reduce overall costs by approximately 11 percent, which translates into a savings of about \$50,000 per full-time equivalent oral health practitioner, per year. In addition, fewer dentists would be needed to perform an identical mix of services. Cost reductions obtained by adding oral health practitioners to their integrated team model would allow expansion of their programs to serve additional MHCP patients in need of dental care. Apple Tree's analysis concludes that MHCP operating losses could be reduced, but not eliminated with the addition of Oral health practitioners. Apple Tree's program offsets these MHCP losses with other earned income as well as by grants and gifts.
4. Community Dental Care has two clinic locations with 16 operatories (Maplewood and East St. Paul) and anticipates hiring two oral health practitioners. They expect to serve 13,000 patients in 2008. Their client population includes 90 percent+ individuals on public programs: 50 percent of which are children, 80 percent are patients are of a minority population, including 60 percent Asians. Their East St. Paul Clinic is in a Dental HPSA (Health Provider Shortage Area). Start-up costs per oral health practitioner in the *metropolitan area* are approximately \$20K, which includes supervising dentist time, lost dentist production time and equipment. Estimated operating costs include \$190/patient (average) for members of the dental team and clinic overhead. They estimate a typical clinic production per dentist/ oral health practitioner at \$200/patient, where oral health practitioners will serve six patients/day after six months at a wage of \$40-\$50/hour, or a percentage of production. Additional estimates of starting costs in rural areas are \$60,000 for leasehold improvements, \$100,000 for equipment for two operatories, \$80,000 in oral health practitioner salary/year and \$50,000 for working capital.
5. Children's Dental Services (CDS) has the capacity to hire three to five oral health practitioner candidates over the next three years. Essentially all of CDS' targeted service areas are federally designated Medically Underserved Areas. CDS is designated as a Critical Access Provider. CDS currently employs nine dentists, all of whom have agreed to provider supervision to oral health practitioners and/or hygienists in collaborative practice. Employing oral health practitioners would significantly reduce CDS' employment costs and gaps in

professional personnel, as CDS currently struggles to retain a full staff of dentists because of the lack of available dentists and soaring salary costs. Oral health practitioners would assist CDS in expanding care to the more than 1,000 additional patients per oral health practitioner/per year that request its care in the Twin Cities and in Greater Minnesota including Duluth and St. Cloud. CDS anticipates that startup costs to work with oral health practitioners would be approximately \$15,000 total, with the cost of startup operatories to be approximately \$25,000/oral health practitioner; however the use of oral health practitioners would reduce CDS' costs by as much as \$100,000/year once a full complement of oral health practitioners is hired.

6. Work group member Dr. Michael Flynn, D.D.S., proposed two scenarios: If oral health practitioners were paid \$30/hour salary, worked 52 weeks/year, with benefits at 28 percent, they would earn \$79,200/year. Collected production needed was determined to be 3 x \$79,200 or \$237,600 with a productive hour cost of  $\$237,600/1840 = \$129/\text{hour}$ . An oral health practitioner salary of \$40/hour with the same benefits results in a cost of 3 x \$106,496 or \$319,488 with a productive hour cost of \$174/hour. With a patient mix of 50 percent fee for service and 50 percent MHCP, revenue equals \$133/productive hour. Therefore, at \$30/hour, the oral health practitioner generates a profit of \$4/hour, whereas at \$40/hour, a loss of \$41/hour is created.
7. The University of Minnesota anticipates needing \$388,000 in facility upgrades, equipment and furnishings, as well as \$645,050 in faculty/staff recruitment costs for their two programs. Non-inflation adjusted tuition and fees for the 40-month, 128 credit bachelor's program is projected to be \$36,345 for residents and \$90,165 for non-residents, while the non-inflation adjusted tuition for the 28-month, 92 credit master's program is projected to be \$28,395 for residents and \$70,165 for non-residents. The optimal faculty/student ratio is 1:6 and the cost per credit is \$303 in-state and \$795 out-state.
8. Metropolitan State University of the Minnesota State Colleges and Universities system is the pre-design process for a new Health and Science building to be built in 2014, although the oral health practitioner program is not dependent on any foreseeable capital requests or projects. Current graduate tuition and fees are \$350 per credit. They anticipate charging between \$1500 and \$2000 for the five clinical courses. The total amount of money generated by 15 students for 44 credits is approximately \$380,000.00. MnSCU anticipates annual personnel costs for faculty and administrative staff to be approximately \$290,000 (including fringe); and anticipate that an operating budget of approximately \$30,000 would be required. This may be slightly higher in the startup phase of the program to cover marketing, and other support services for students.

### **Conclusions and Recommendations:**

Although it is premature to draw conclusions about the economics until oral health practitioners begin work and scenarios such as those in this report can be based on actual numbers, MDH, the Board and institutions educating oral health practitioners should continue developing models to capture and analyze the economic impact of oral health practitioner practice on the delivery of dental services and access to those services. The work group also acknowledges that the

educational institutions planning oral health practitioner programs have been and will continue to invest considerable time, effort to educate this new provider group. In some cases this will also create significant new costs for the educational institutions. It will be important to establish measurement baselines as early as possible.

## Section VI – Evaluation of Minnesota’s Oral Health Practitioner Initiative

The oral health practitioner legislation assigned the work group to recommend and propose legislation that establishes an evaluation process and includes clearly defined outcomes with a process for assessment. At its October 14, 2008 meeting, the work group reviewed a draft evaluation model and discussed evaluation issues.

### Background and Discussion

Starting in 2011, approximately 22-25 oral health practitioners are expected to graduate per year. In 10 years (2021), approximately 220-250 oral health practitioners will be serving clients in Minnesota. Given this small cohort of practitioners in the initial years, a large scale evaluation focusing on population-wide measures will not be sensitive enough to detect any effects on access, cost or quality of this provider group.

MDH staff drafted an oral health practitioner evaluation model based on standard approaches to program evaluation. The evaluation approach presented, known as a “logic model,” begins with the goals of the oral health practitioner initiative found in legislation, and sets a framework to analyze the **resources** that will be used in the oral health practitioner initiative by all parties (inputs), the **activity** produced by those resources (outputs), and the **impact** of that activity (outcomes). The work group reviewed and proposed a set of evaluation variables that are included in the logic model. The proposed logic model is shown in Table 4, page 38.

The work group recommends that the evaluation focus on the cohort of oral health practitioners, their activities and selected patient/practice outcomes, including patient safety. Proposed outcome measures include the following:

1. Number of new patients served (per provider/per month)
2. Type of services provided by oral health practitioners
3. Reduced waiting times
4. Decreased travel time for patients
5. Impact on Emergency Department use, including antibiotics prescriptions for dental infections
6. Increase diversity of oral health practitioners to reflect population served
7. Number/distribution of oral health practitioners throughout Minnesota
8. Setting/type of oral health practitioner practice
9. Number of dentists involved in collaborative management agreements
10. Cost to system.

**Table 4 - Preliminary Oral Health Practitioner Evaluation Logic Model**

**Goal:** Oral Health Practitioner law will (1) improve access to needed oral health services for low-income, uninsured and underserved patients; (2) control the costs of education and dental services; (3) preserve quality of care; and (4) protect patients from harm. (Laws 2008, Ch. 298, sec. 29, subd. 3)

INPUTS			OUTCOMES		
	ACTIVITIES	PARTICIPANTS	SHORT TERM (1-5 yr)	MEDIUM TERM (5-10 yr)	LONG TERM (10+ yr)
<p><b>Funds &amp; Investments</b>                      1) Start-up funds                      2) Operating funds                      3) Other funds (e.g., state appropriations, grants)</p> <p>Staffing                      1) Oral health practitioners                      2) Dental practice</p> <p><b>Reimbursements</b>                      1) Patients                      2) DHS                      3) Health Plans/Insurers</p> <p><b>Other Inputs</b>                      1) Outreach</p>	<p><b>Education</b>                      # of programs, entering students, total students</p> <p><b>Licensing, Regulation, Evaluation</b>                      1) BoD                      2) Accrediting bodies                      3) MDH                      4) Others</p> <p><b>Direct Service</b>                      Practice settings</p> <p><b>Wrap-around Services</b>                      1) Outreach                      2) Transportation                      3) Interpreters</p>	<p><b>Education</b>                      U of M                      MNSCU                      Others</p> <p><b>Licensing, etc.</b>                      1) BoD – licenses sought and granted                      2) Accrediting bodies                      3) MDH                      4) Others</p> <p><b>Patients</b>                      Patients seen by Oral health practitioners, services provided</p> <p><b>Wrap-around Services</b>                      1) Health Plans                      2) Social Service Organizations                      3) Safety Net providers</p>	<p><b>Patients</b>                      Increase patient satisfaction                      Decrease travel time                      Increase emphasis on preventive care                      Increase # new patients (pm/pm)                      Increase # patients receiving restorative care                      Reduced waiting time</p> <p><b>Dental Industry/Sector</b>                      Increase number of new patients                      Increase diversity of Oral Health Practitioner to reflect population served                      Type of services provided by Oral health practitioners                      Number of dentists involved in Collaborative Management Agreements                      Number/distribution of Oral health practitioners throughout Minnesota                      Setting/type of Oral Health Practitioner practice</p> <p><b>State Government</b>                      Public program costs</p> <p><b>Education System</b>                      Increase distribution of program grads                      Increase resources allocated to initiate Oral Health Practitioner program                      Education programs are of sufficient quality, clinical and theoretical foundations.</p> <p><b>Society (Public Health/social impact)</b>                      Maintain quality of care</p>	<p><b>Patients</b>                      Increase patient satisfaction                      Decrease travel time                      Increase emphasis on preventive care                      Increase # new patients pm/pm                      Increase # patients receiving restorative care                      Reduce waiting time</p> <p><b>Dental Industry/Sector</b>                      Increase number of new patients                      Increase diversity of Oral Health Practitioner to reflect population served</p> <p><b>State Government</b>                      Decrease cost</p> <p><b>Education System</b>                      Increase distribution of program grads                      Increase resources allocated to initiate Oral Health Practitioner program                      Education programs are of sufficient quality, clinical and theoretical foundations.</p> <p><b>Society (PH/social impact)</b>                      Maintain quality of care</p>	<p><b>Patients</b>                      Increase patient satisfaction                      Decrease travel time                      Increase emphasis on preventive care                      Increase # new patients pm/pm                      Increase # patients receiving restorative care                      Reduce waiting time</p> <p><b>Dental Industry/Sector</b>                      Increase number of new patients                      Increase diversity of Oral Health Practitioner to reflect population served</p> <p><b>State Government</b>                      Decrease cost</p> <p><b>Education System</b>                      Increase distribution of program grads                      Increase resources allocated to initiate Oral Health Practitioner program                      Education programs are of sufficient quality, clinical and theoretical foundations</p> <p><b>Society (Public Health/social impact)</b>                      Maintain quality of care</p>
			<p><b>OUTCOME MEASURES</b>                      Focus on Oral Health Practitioner activities and outcomes, instead of population measures                      Dentist attitudes/support                      Impact on emergency department use (prescriptions for antibiotics)                      Patient safety                      Relative value units</p>		

During its discussion of collaborative management agreements, the work group identified these statute required agreements as an appropriate source of evaluation information. The work group discussed options for collecting and mining the information available in oral health practitioner collaborative management agreements.

### **Conclusions and Recommendations:**

1. The work group recommends that MDH and/or the Minnesota Board of Dentistry begin evaluation activities of oral health practitioner practice by the end of 2011. This shall include tracking oral health practitioner education programs once they begin in 2009. The oral health practitioner evaluation should focus on the impact of the cohort of oral health practitioners including their activities, selected patient/practice outcomes and patient safety.
2. Oral health practitioners and their collaborating dentists should be required to annually submit their collaborative management agreements to the Board of Dentistry. The Board of Dentistry and/or MDH should include analysis of collaborative management agreements in all evaluation efforts.
3. The 2009 Legislature should incorporate these recommendations into legislation, with accompanying ongoing allocation of funds necessary to fulfill the evaluative responsibilities.

## **Section VII - Oral Health Practitioner Licensure and Regulatory Requirements**

The oral health practitioner legislation assigned the work group to recommend and propose legislation that states the licensure and regulatory requirements, including license fees.

### **Background and Discussion:**

Licensure requirements for oral health practitioners will parallel the established standards for other regulated dental professionals in Minnesota. This new member of the dental team will have to meet the strict educational and testing criteria as described in this report. Additionally, the oral health practitioner licensure and practice standards will be incorporated into the Minnesota Dental Practice Act (MINNESOTA Statutes §150A). The oral health practitioner will be required to submit an application for licensure, and pay fees established by the board. The fees being proposed are between those paid by dentists and dental hygienists, and initially will not exceed the following:

- Application fee: \$100
- Initial license fee: prorated based on biennial renewal date at an annualized fee of \$120 (\$10/month)
- Biennial license renewal fee: \$240
- Late fee: 25 percent of biennial fee (\$60)
- Reinstatement fee: \$100.

The oral health practitioner will also be subject to the statutes and rules related to the practice of dentistry, and may be disciplined by the board for noncompliance with those requirements and standards established for health care professionals.

**Conclusions and Recommendations:**

1. The Board of Dentistry shall charge a fee not to exceed \$240/two years.
2. The process of licensing foreign trained dental therapists needs clarification, as does the evaluation of credentials from potential Minnesota oral health practitioners trained in other states.



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## **Appendix A - ORAL HEALTH PRACTITIONER WORK GROUP LEGISLATION**

### **Laws of Minnesota 2008, Chapter 298**

#### **Sec. 26. [150A.061] ORAL HEALTH PRACTITIONER.**

Subdivision 1. **Oral health practitioner requirements.** The board shall authorize a person to practice as an oral health practitioner if that person is qualified under this section, works under the supervision of a Minnesota-licensed dentist pursuant to a written collaborative management agreement, is licensed by the board, and practices in compliance with this section and rules adopted by the board. No oral health practitioner shall be authorized to practice prior to January 1, 2011. To be qualified to practice under this section, the person must:

- (1) be a graduate of an oral health practitioner education program that is accredited by a national accreditation organization to the extent required under subdivision 2 and approved by the board;
- (2) pass a comprehensive, competency-based clinical examination that is approved by the board and administered independently of an institution providing oral health practitioner education; and
- (3) satisfy the requirements established in this section and by the board.

Subd. 2. **Education program approval.** If a national accreditation program for mid-level practitioners is established by the Commission on Dental Accreditation or another national accreditation organization, the board shall require that an oral health practitioner be a graduate of an accredited education program.

Subd. 3. **Requirement to practice in underserved areas.** As a condition of being granted authority to practice as an oral health practitioner under this section, the practitioner must agree to practice in settings serving low-income, uninsured, and underserved patients or in a dental health professional shortage area as determined by the commissioner of health.

Subd. 4. **Application of other laws.** An oral health practitioner authorized to practice under this section is not in violation of section 150A.05 relating to the unauthorized practice of dentistry and chapter 151 relating to authority to prescribe, dispense, or administer drugs.

Subd. 5. **Rulemaking.** The Board of Dentistry may adopt rules to implement this section.

#### **Sec. 29. ORAL PRACTITIONER WORK GROUP.**

Subdivision 1. **Oral health practitioner work group.** By August 1, 2008, the commissioner of health, or the commissioner's designee, in consultation with the Board of Dentistry, shall convene the first meeting of the work group appointed under subdivision 2 to develop recommendations and proposed legislation for the education and regulation of oral health practitioners. The work group's recommendations must include an implementation schedule that allows for enrollment of students in oral health practitioner educational programs by the fall of 2009. The work group shall provide recommendations and proposed legislation on the following issues:

- (1) necessary education and competencies, including clinical training requirements, faculty expertise, and facilities;
- (2) the appropriate program accreditation;
- (3) scope of practice that reflects the education and training of the oral health practitioner and includes the following services: preventive, primary diagnostic, educational, palliative, therapeutic, and restorative oral health services, including preparation of cavities and restoration of primary and permanent teeth using direct placement of appropriate dental materials, temporary placement of crowns and restorations and placement of preformed crowns; pulpotomies on primary teeth; direct and indirect pulp capping in primary and permanent teeth; extractions of primary and permanent teeth; placing and removing sutures; and providing reparative services to patients with defective prosthetic appliances. In recommending scope of practice for the oral health practitioner, the work group may consider which services may be provided to children and which services may be more appropriately provided to adults;
- (4) the level of supervision required by a licensed dentist, including any limitations, restrictions, or dentist supervision requirements the work group recommends that should be applied to any of the services or procedures listed in clause (3);
- (5) the medications that may be prescribed, administered, and dispensed by an oral health practitioner if authorized by the supervising dentist in a collaborative agreement. These may be limited to medications for anti-infective therapies, nonnarcotic pain management, and prevention;
- (6) extractions that may be performed by an oral health practitioner if authorized by the supervising dentist in a collaborative agreement and are within any limitations, restrictions, and level of supervision requirements recommended by the work group;
- (7) criteria for determining in which practice settings oral health practitioners should be authorized to practice in order to improve access to dental care for low income, uninsured, and underserved populations, including a definition of "underserved";
- (8) an assessment of the economic impact of oral health practitioners to the provision of dental services and access to these services;
- (9) an evaluation process that includes clearly defined outcomes and a process for assessing whether these outcomes were successfully met; and
- (10) licensure and regulatory requirements, including licensing fees.

**Subd. 2. Membership and operation of work group.** (a) The work group shall consist of the following members:

- (1) one dentist and one dental hygienist appointed by the University of Minnesota School of Dentistry;
- (2) two persons appointed by the Minnesota State Colleges and Universities, at least one of whom must be a dentist;
- (3) one representative, who must be a dentist, appointed by the Board of Dentistry;
- (4) two dentists appointed by the Minnesota Dental Association;
- (5) one dental hygienist appointed by the Minnesota Dental Hygienists Association;

- (6) two persons representing safety net dental providers serving low-income and uninsured patients appointed by the Minnesota Safety Net Coalition at least one of whom must be a dentist;
- (7) a pediatric dentist appointed by the Minnesota Association of Pediatric Dentists;
- (8) a representative of the commissioner of health; and
- (9) a representative of the commissioner of human services.

(b) The appointing authorities under paragraph (a) must complete their appointments no later than July 15, 2008. The work group must elect a chair from its membership at the first meeting. The commissioner shall provide staff support and meeting space for the work group. The members serve without compensation or reimbursement for any expenses.

**Subd. 3. Research and recommendations.** In developing its recommendations, the work group shall review existing mid-level dental practitioner programs in other countries and in Alaska and proposals for dental therapists, advanced practice dental hygienists, and other models. The work group shall review research on mid-level practitioners and, to the extent possible, base its recommendations on evidence-based strategies that are most likely to:

- (1) Improve access to needed oral health services for low-income, uninsured, and underserved patients;
- (2) Control the costs of education and dental services;
- (3) Preserve quality of care; and
- (4) Protect patients from harm.

The work group shall complete its recommendations by December 15, 2008, and the commissioner and Board of Dentistry shall submit a report containing the work group's recommendations and draft legislation to the chairs and ranking minority members of the legislative committees with jurisdiction over health care and higher education issues by January 15, 2009.

**Subd. 4. Costs of implementation.** The commissioner of health may seek private funding or grants to support the activities of the oral health practitioner work group, and any money received is appropriated to the commissioner of health for that purpose. To the extent the costs cannot be covered with grants and external funding, the commissioner of health may charge a fee to the Minnesota State Colleges and Universities and the University of Minnesota Dental School proposing to develop oral health practitioner education programs to cover the remaining costs. Any fees collected shall be deposited in the state government special revenue fund and appropriated to the commissioner for the activities of the work group.

**Subd. 5. Expiration.** This section expires on the date the report required under subdivision 3 is submitted to the specified legislative members.

**EFFECTIVE DATE.** This section is effective the day following final enactment.

## Appendix B – Oral Health Practitioner Work Group Membership

1.	Joan A. Sheppard, D.D.S., Work Group Chair 10545 Morgan Avenue S. Bloomington, MN 55431	Dentist/Minnesota Board of Dentistry Tele: (952) 890-5450/c-612-868-5774 Email: <a href="mailto:joanasheppard@earthlink.net">joanasheppard@earthlink.net</a>
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### **Work Group Staff**

Mark Schoenbaum, Minnesota Department of Health  
Kristine Gjerde, Minnesota Department of Health

Marshall Shragg, Minnesota Board of Dentistry  
Ellen Benavides, Contracted Facilitator

## **Appendix C - Oral Health Practitioner Work Group Meeting Schedule and Work Plan\***

### **Meeting 1 (August 8, 2008) 1- 4pm, Mosquito Control Board Building**

- Welcome/Introductions
- Agreement on guiding principles and goals
- Ground rules and decision-making process
- Adoption of work plan and deliverables
- Election of chair
- Lessons learned from New Zealand and Canada

### **Meeting 2 (Friday, August 29, 2008) 1- 4pm, Wilder Foundation (Rooms B/C)**

- Populations to be served: public programs, private pay and uninsured children and adults, special needs populations, i.e. - nursing and group home residents, prison/jail inmates
- Definition of low-income, uninsured, and underserved populations
- Criteria for determining in which practice settings oral health practitioners should be authorized to practice

### **Meeting 3 (Friday, September 5, 2008) 1- 4pm, Centennial Office Building (Lady Slipper Room)**

- Level of supervision required by a licensed dentist, including any limitations or restrictions
- Scope of practice: array of services included in the legislation; medications that may be prescribed, administered and dispensed

### **Meeting 4 CHANGED TO Friday September 26<sup>th</sup>, 1- 4pm, Mosquito Control Board Building**

- Overview of education programs; competencies, clinical training requirements, faculty expertise, and facilities proposed by the U of M and MnSCU programs
- Program accreditation, licensure and regulatory requirements, including licensing fees

### **Meeting 5 CHANGED TO Wednesday, October 8<sup>th</sup>, 12 - 3pm, Wilder Foundation (Rooms A/B)**

- Assessment of the economic impact of oral health practitioners to the provision of dental services and access to these services
- Draft Collaborative Management Agreement

### **Meeting 6 (Friday, October 31, 2008) 1- 4pm, Mosquito Control Board Building**

- Evaluation process that includes clearly defined outcomes and a process for assessing whether these outcomes were successfully met

### **Meeting 7 (Friday, November 14, 2008) 1-4 pm, Mosquito Control Board Building**

- Review draft legislation and report

### **Meeting 8 (Friday, December 5, 2008) 1- 4 pm, Mosquito Control Board Building**

- Finalize legislation and report; next steps

### **Meeting 9 (Friday, December 12, 2008 - if needed) 1 – 4pm, Mosquito Control Board Building (meeting not needed; canceled on 12/5/2009)**

\*Work Group meeting flow is intentionally set up to address the array of discussion topics in the following order: Who, What, Where and How. Each meeting will include presentation of background materials about each discussion topic, followed by deliberation, consensus on draft recommendations and proposed legislation. Materials will be sent to members/interested parties in advance of each meeting. Written input from interested parties will be invited/incorporated into meeting agenda/materials via chair.

**Mosquito Control Board Bldg**  
2099 University Avenue West  
St. Paul, MN  
(651) 645-9149

**Amherst H. Wilder Foundation**  
451 Lexington Parkway North  
St. Paul, MN  
(651) 280-2402

**Centennial Office Building**  
658 Cedar Street  
St. Paul, MN  
(651) 201-2300

## **Appendix D – Summary Descriptions of Low-Income, Uninsured and Underserved Populations; Dental Health Professional Shortage Areas**

### **Low-income**

- The 2008 Federal poverty threshold for a single person is \$10,400; a family of four is \$21,200. Income limit at 200 percent of federal poverty limit (FPL) for a family of four is \$42,400.
- Minnesota Health Care Programs (MHCP) provide basic health care to roughly 666,000 Minnesotans through three publicly funded health care programs – Medical Assistance (MA) (507,000), General Assistance Medical Care (GAMC) (33,000) and MinnesotaCare (126,000).
- MHCP income eligibility uses the federal poverty limit, ranging from less than 75 percent of FPL to 275 percent of FPL.
- All MHCP enrollees have some dental benefits, but only 42.2 percent of all MHCP enrollees visited a dentist in 2006; including 43.6 percent of MA enrollees, 36.5 percent of GAMC enrollees, and 51 percent of MinnesotaCare enrollees (MINNESOTA Department of Human Services, 2008).
- In FY 2008, 1498 children and 15,884 adults were seen at hospital emergency rooms for treatment of dental pain (Reisdorf, 2008).
- The number of Minnesotans at 100, 200, and 275 % of poverty are as follows:
  - Minnesotans below 100 % FPL = 8.6 % of the total population, (448,035)
  - Minnesotans below 200 % FPL = 24.2 % of the total population, (1,257,824)
  - Minnesotans below 275 % FPL = 36.8 % of the total population, (1,913,764)(Minnesota Department of Health, Health Economics Program and University of Minnesota School of Public Health, 2007 Minnesota Health Access Survey).

### **Uninsured**

- The 2007 MINNESOTA Health Access Survey of parents showed that 33.3 percent of Minnesotans, age 3 and older do not have dental insurance coverage.
- For each child in the U.S. without medical insurance, there are almost three children without dental insurance (Manski & Brown, 2006).

### **Underserved**

- Patients with family incomes below 200 percent of the federal poverty level.
- Patients with medical disabilities or chronic illness.
- Patients residing in geographically isolated or medically underserved areas.
- Patients with limited literacy.
- Patients confined to residential settings.  
(Pipeline, Profession & Practice, 2006).

### **Health Professional Shortage Area - Dental (HPSA-Dental)**

Area:	Must be a rational area to provide service. Population to dentist FTE ratio of 5000:1 or 4000:1 in high needs area.
Population:	Resides in Area; have access barriers; or federally recognized Native American tribes. Includes areas with greater than 30 percent at 200 percent poverty, homeless, specific ethnic/race groups.
Facilities:	Federal or State correctional, public or non-profit medical facility and insufficient capacity. (U.S. Health Resources Services Administration, 2008)



Minnesota Department of **Human Services**

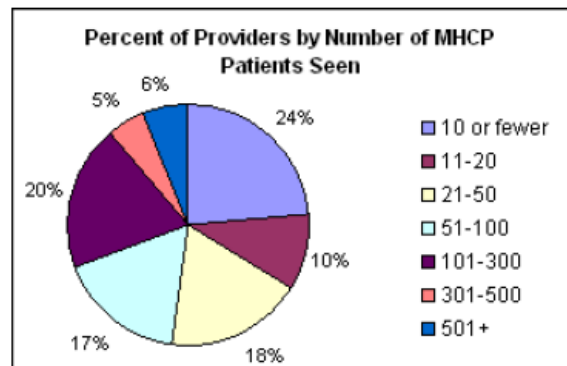
**2007 Minnesota Health Care Program Individual Treating Dental Providers**

(Includes FFS & Managed Care)

<b>Total # of Individual Treating Dental Providers:</b>	<b>2466</b>
---	-------------

Breakdown by Percent of Patients Seen

Patients Seen	Percent of Total
10 or fewer	24%
11-20	10%
21-50	18%
51-100	17%
101-300	20%
301-500	5%
501+	6%



2007 Individual Treating Providers by County of Provider Filing Claims

County	# Treating Providers
Aitkin	4
Anoka	129
Becker	8
Beltrami	17
Benton	12
Big Stone	1
Blue Earth	46
Brown	9
Carlton	23
Carver	19
Cass	9
Chippewa	5
Chisago	10
Clay	26
Clearwater	5
Cook	2
Cottonwood	6
Crow Wing	47
Dakota	221
Dodge	3
Douglas	12
Faribault	5
Fillmore	11
Freeborn	6
Goodhue	11
Grant	1
Hennepin	703
Houston	7
Hubbard	9
Isanti	15

County	# Treating Providers
Martin	9
McLeod	17
Meeker	7
Mille Lacs	5
Morrison	12
Mower	18
Murray	4
Nicollet	15
Nobles	9
Norman	3
Olmsted	81
Ottertail	33
Pennington	5
Pine	4
Pipestone	3
Polk	12
Pope	3
Ramsey	459
Red Lake	1
Redwood	4
Renville	6
Rice	37
Rock	1
Roseau	4
Scott	50
Sherburne	34
Sibley	5
St. Louis	126
Sterns	101
Steele	27

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Itasca	28
Jackson	3
Kanabec	8
Kandiyohi	29
Kittson	3
Koochiching	5
Lac Qui Parle	4
Lake	3
Lake of the Woods	1
LeSueur	9
Lincoln	2
Lyon	11
Mahnomen	0
Marshall	1

Stevens	4
Swift	3
Todd	7
Traverse	1
Wabasha	9
Wadena	5
Waseca	7
Washington	114
Watsonwan	2
Wilkin	1
Winona	26
Wright	19
Yellow Medicine	5

<b>Reservations</b>	<b># Treating Providers</b>
Fond Du Lac Reservation	1
Leech Lake Reservation	11
Mille Lacks Reservation	2
Nett Lake Reservation	2
Red Lake Reservation	3
White Earth Reservation	6

<b>Other States with Practices Billing for MHCP Enrollees</b>	<b># Treating Providers</b>
Iowa	6
North Dakota	44
South Dakota	14
Wisconsin	25

## **Appendix E - DEFINITIONS OF SUPERVISION**

**(Minnesota Rule 3100.0100 [DENTAL BOARD] )**

Subp. 21. **Supervision.** "Supervision" means one of the following levels of supervision, in descending order of restriction:

A. "**Personal supervision**" means the dentist is personally operating on a patient and authorizes the auxiliary to aid in treatment by concurrently performing supportive procedures.

B. "**Direct supervision**" means the dentist is in the dental office, personally diagnoses the condition to be treated, personally authorizes the procedure, and before dismissal of the patient, evaluates the performance of the auxiliary.

C. "**Indirect supervision**" means the dentist is in the office, authorizes the procedures, and remains in the office while the procedures are being performed by the auxiliary.

D. "**General supervision**" means the supervision of tasks or procedures that do not require the presence of the dentist in the office or on the premises at the time the tasks or procedures are being performed but require the tasks be performed with the prior knowledge and consent of the dentist.

## **Appendix F – Summary of Alaska, Canadian, Great Britain and New Zealand Programs**

### **Alaska**

The Alaskan Native Tribal Health Consortium initiated the Dental Health Aide (DHA) program in 2003 under provisions of the Alaska Community Health Aide Program. There are three levels of DHA practice: (1) Primary DHA focuses on community dental education; (2) Extended Function DHA works under direct supervision, serving as an expanded function dental assistant; and (3) Dental Health Aide Therapist (DHAT) serves as a pediatric oral health therapist under general supervision. The W. K. Kellogg Foundation provided initial funding for the DHAT program in Alaskan Native Territories.

DHATs complete a two-year dental health educational program followed by a 400-hour clinical practicum under direct dentist supervision. The supervising Public Health Service dentist, who also serves the Alaskan Native population, certifies competency to begin collaborative practice. The Alaskan Native Tribal Health Consortium confers certificates of DHAT training completion. The initial group of DHATs was trained at the University of Otago, New Zealand, with supervised clinical practice in Alaska. The educational program has been moved entirely to Alaska. Faculty is provided by the University of Washington School of Medicine and by dentists from other states. DHAs are required to complete 24 hours of continuing education and recertification of competency every two years. Once the DHAT is certified, the collaborative agreement defines practice. Therapists are under the general supervision of a dentist who is responsible for writing the standing orders and being the point of contact for the therapist. The supervising dentist must conduct periodic reviews of the therapist that include both chart review and patient examination. Routine communication with the supervising dentist is conducted by telephone and digital x-ray image transmission.

Dental Health Aide Therapists provide oral exams, preventive dental services, simple restorations, stainless steel crowns, extractions and radiographs. The DHAT focus is to reach children, pregnant women and other high-risk residents; treating dental caries and providing preventive services, such as fluorides, sealants, cleanings, pulpotomies, and uncomplicated tooth extractions. DHATs provide oral health education at schools and develop community prevention strategies, and may supervise primary dental health aides.

Evaluation: The DHAT program evaluations conducted by Fiset (2005) and Bolin (2007) included assessment of clinical performance. Quality assessments that record keeping, cavity preparation, cavity restoration, patient management, and patient safety met or exceeded current standards of dental care. A full evaluation of DHAT practice is currently underway by the W. K. Kellogg Foundation.

### **Canada**

Dental therapists (DT) began to practice in Saskatchewan in 1976, providing basic treatment and preventive services including: restorative, prevention, oral health promotion, and client advocacy, including referral to a dentist. Canadian Dental Therapists receive a diploma after two years of post secondary education from the University of Toronto. Further training allows additional certification in specific orthodontic techniques.

The *Dental Disciplines Act, 1997*, provided the authority for dental associations to license and regulate their own profession (Canadian Dental Therapists Association, 2006). Canadian DTs perform examination, diagnosis of caries, radiographs, preventive education and services,

restorations and extractions of primary and secondary teeth. The DT works under consultative/referral relationship and general supervision of a dentist. The dentist must perform an annual clinical evaluation of the DT, including assessment of radiographs, pulpotomies, restorations, and documentation. The Saskatchewan DT may only be employed by the government, a dentist, a medical or hospital association, a hospital, or a municipal health department and may not charge or directly collect fees from the public for any services provided to the First Nation population in Saskatchewan.

Canadian dentists were initially opposed to the creation of the DT program, concerned that it would decrease their practice volume. Practice volume actually increased as the dental IQ of the province rose. Parents of children seen by the DT in school increased their demand for oral health services (Hartsfield, 2006). Although the oral health rating of Saskatchewan had improved from being the worst in Canada to being #1, a 1987 severe budget shortfall resulted in reduction in funding of DT services. Limited funding led to a large shift from employment in the school system to DT employment by dentists in private practice.

Evaluation: Portions of the Canadian DT program have been evaluated, noting that the quality of DT services has been found to be comparable to the services of a dentist; continuity of care has improved, including cultural appropriateness; and there has been a decrease in medical evacuations due to dental pain. During the first 10 years of dental therapy in Canada, 1978-1987, the ratio of restorative to preventive care went from 4.0 to .98, indicating a steady reduction in the number of required restorative procedures (Trueblood, 1992).

### **Great Britain**

In 2006, dental hygiene and dental therapy were combined into one profession allowed to practice under general or indirect supervision in any setting. Patients must first be examined by a dentist who creates a written treatment plan to be performed by the dental therapist (DT) or dental hygienist-therapist (DH-T.) Clinically, DTs help to treat and prevent periodontal (gum) disease by scaling and polishing teeth, applying prophylactic and antimicrobial materials, taking dental radiographs, and provide monitoring and screening procedures. Therapists also treat dentition with simple restorations, placement of preformed crowns, pulp treatments on primary teeth, apply fluoride treatments and sealants. They perform health promotion including education, oral hygiene, and dietary advice. In 2002, practice was revised to allow DTs to work in all sectors of dentistry including general practice, administer the inferior dental nerve block, and undertake pulpotomies and placing of stainless steel crowns on primary teeth.

In 2006, Jones, Devalia, & Hunter<sup>1</sup> conducted a survey of dental practitioners in Wales to determine their attitudes towards dually-qualified dental hygienist-therapists. With a response rate of 60 percent, they learned that many dental practitioners were not completely aware of the potential roles of the dually qualified dental hygienist-therapist. The majority of the respondents who already employed a hygienist-therapist or would consider doing so indicated that they would require a hygienist-therapist to undertake both hygiene and therapy treatment. Sixty percent stated that they would add an associate dentist before adding a hygienist-therapist to their practice. Lack of surgical space was the largest obstacle to adding staff.

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<sup>1</sup> Jones, G., Devalia, R., & Hunter, L. (2007). Attitudes of general dental practitioners in Wales towards employing dental hygienist-therapists. *British Dental Journal*, 203, E19.

Qualitative analysis of respondents' comments yielded five themes: cost-effectiveness, knowledge of the role of a hygienist-therapist, accommodation, and patient and practitioner acceptance. Dental practitioners had varied preferences whether dental hygienist-therapists were employed or self-employed. Salary expense was stated as a concern by some and as cost-effective by other practitioners. The authors report opposing views on cost-effectiveness: 'With the new contract it will be cost-effective to have therapists.' 'The terms of the upcoming new contract make employment of therapists and hygienists financially non viable.' They further report that other dentists stated that they believed that therapists would not be cost-effective until they were allowed to carry out a basic examination and formulate a treatment plan, relieving the dentist of having to personally see and assess every patient.

Overall, the results indicated that the practices favored the use of hygienist-therapists, with 43 percent prepared to consider employing one. Surgical capacity was the biggest obstacle in many practices. The authors concluded that there was a lack of knowledge and understanding as to how a dental therapist may be utilized within the dental team. The authors advocate that the training of hygienist-therapists should be integrated with training of dental undergraduates enabling the true value to be understood early in the educational process (Jones, Devalia, & Hunter, 2007).

### **New Zealand**

Dental therapists examine and provide routine treatment of teeth and promote preventive dental health practices under the general supervision of dentists. More complex dental health problems are referred to the dentist. Their primary target population is children, whose schools they visit on a regular basis.

The New Zealand Dental Therapist (DT) program began in 1920 with the creation of school dental nurses to address the poor oral health of New Zealand's children. By 1970, there were 1300 DTs resulting in 95 percent utilization for children and adolescents up to age 19. DT education was transferred to the dental school in 1999. With the introduction of fluoridation of drinking water, the need for DTs has decreased and there are currently 660 DTs in New Zealand. Most focus their practice towards children (Nash, et al.) and may treat adults upon completion of additional training.

New Zealand's District Health Boards employ DTs or contract with nongovernmental organizations to provide DTs to serve all children from birth to age 19. Dental therapists provide dental examinations; restorations and pulp capping in primary and permanent teeth; extraction of primary teeth; and sealant and fluoride applications. Referrals are made to the appropriate practitioner or agency as needed. It is legal for a dental therapist to be the owner of a business that provides dental care in which the dentist may be engaged as an employee or as an independent contractor. The clinical environment may range from a large, publicly operated school dental service to a small private practice.

In 2007, the DT educational program was revised to a two-year diploma or a combination three-year Bachelors degree with both dental hygiene and DT. The University of Otago Dental School trains 45 DTs per year. The DT practice and skills must be evaluated by the collaborating dentist at a minimum of every two years, including an update of the Collaborative Management Agreement.

*This survey of mid-level provider programs was prepared by MDH staff. Sources used are found in the bibliography, Appendix J. Work group member Patrick Lloyd, D.D.S., contributed the Jones, Devalia, & Hunter article.*

## Appendix G – Economic Scenario Detail

### G1 PrimeWest Health

#### PrimeWest Health -- Estimate of Unmet Demand for Dental Services and OHP Illustration

**Table A. 2007 Dental Claims and Service Experience**

Services	# of Unique Members Served [2]	Visits [3]	# of Services	Total Paid Before Critical Access	Critical Access [4]	Total Paid	Average Payment Per Service
Preventive and Diagnostic [1]	4,002	6,540	21,372	\$ 487,374	\$ 92,133	\$ 579,507	\$ 27.12
Restorative [1]	2,542	4,860	11,472	\$ 926,728	\$ 175,189	\$ 1,101,917	\$ 96.05
Total	4,325	9,660	32,844	\$ 1,414,102	\$ 267,323	\$ 1,681,424	\$ 51.19

**Table B. Estimated 2009 Dental Claims and Service Experience [5]**

Services	# of Unique Members Served [2]	Visits [3]	# of Services	Total Paid Before Critical Access	Critical Access [4]	Total Paid	Average Payment Per Service
Preventive and Diagnostic [1]	6,670	10,900	35,620	\$ 878,572	\$ 166,086	\$ 1,044,658	\$ 29.33
Restorative [1]	4,237	8,100	19,120	\$ 1,670,582	\$ 315,808	\$ 1,986,389	\$ 103.89
Total	7,208	16,100	54,740	\$ 2,549,154	\$ 481,893	\$ 3,031,047	\$ 55.37

**Table C. Estimated 2009 Unmet Demand for Dental Services [6]**

Services	# of Unique Members Served [2]	Visits [3]	# of Services	Total Paid Before Critical Access	Critical Access [4]	Total Paid	Average Payment Per Service
Preventive and Diagnostic [1]	6,670	10,900	35,620	\$ 878,572	\$ 166,086	\$ 1,044,658	\$ 29.33
Restorative [1]	2,118	4,050	9,560	\$ 835,291	\$ 157,904	\$ 993,195	\$ 103.89
Total	6,939	13,500	45,180	\$ 1,713,863	\$ 323,990	\$ 2,037,853	\$ 45.11

**Table D. Oral Health Practitioner (OHP) Services Required to Meet Unmet Demand [7]**

Funding Required Per OHP [8]	# of Unique Members Served Per OHP [2]	Visits Per OHP [3]	# of Services Per OHP Per Year	# of Services Per OHP Per Workday [9]	Total Payments to Meet Unmet Demand [10]	Number of OHPs to Meet Unmet Demand [11]
150,000	511	994	3,326	14	\$ 2,037,853	13.6
175,000	596	1,159	3,880	17	\$ 2,037,853	11.6
200,000	681	1,325	4,434	19	\$ 2,037,853	10.2
225,000	766	1,491	4,988	22	\$ 2,037,853	9.1
250,000	851	1,656	5,543	24	\$ 2,037,853	8.2

## G1, p. 2 NOTES

[1] Based on following HCPCS code categories: Diagnostic D0100 - D0999, Preventive D1000 - D1999, and Restorative D2000 - D9999.
[2] Number of unique members served within the time period. A member may have services in both the Preventive/Diagnostic (P/D) and the Restorative (R) categories.
[3] Number of unique visits within the time period. A visit may include one or more services in one or more of the P/D and R categories. If a visit had both P/D and R it would appear in both categories. Services, by contrast, appear only in one category or the other.
[4] Critical access dental (CAD) payments are based on DHS formula which includes a variety of factors. Allocation of CAD payments to preventive/diagnostic vs. restorative service categories is on a proportional basis according to paid claim levels.
[5] Based on assumed 4% cost trend increase, and proportional increased utilization and payments from increased enrollment due to addition of Beltrami, Clearwater and Hubbard counties. CAD payments assumed to continue at historical levels.
[6] Based on assumptions of unmet demand as follows: (A) actual services = 50% of need for preventive and diagnostic services, that is, actual services would need to be increased 100% to meet the unmet demand; and (B) actual services = 67% of need for restorative services, that is, actual services would need to be increased 50% to meet the unmet demand. Estimate of unmet demand for dental services per PrimeWest Health, Care and Quality Management Department. CAD payments assumed to continue at historical levels.
[7] Simplified financial and service volume scenarios to illustrate potential service volumes required per OHP based on alternative financial requirements to support an OHP practitioner. See notes 8-11 for related assumptions and limitations. See also the Table D Interpretive Note below.
[8] Alternative funding scenarios for illustrative purposes, as necessary to cover OHP salary, benefits, workspace, equipment, support personnel, and other overhead costs, regardless of practice model.
[9] Assumes average 46 work weeks per year, and 5 workdays per work week.
[10] Total payments to meet unmet needs based on Table C, including an average payment per service = \$45, average payment per visit = \$151, and average services per visit = 3.3. These averages would be subject to change based on differences in the mix of preventive/diagnostic and restorative services, changes in funding available for dental service reimbursement, and other factors.
[11] Based on the simplifying assumption for illustrative purposes of 100% of unmet demand filled by OHPs, serving exclusively PrimeWest Health members. In practice, some unmet demand may require the services of other dental health professionals in addition to OHPs (e.g., for more complex restorative services). Also in practice, OHPs would be more likely to serve a mix of Medicaid, Medicare, commercially-insured, and self-pay patients, rather than PrimeWest patients only.

### TABLE D INTERPRETIVE NOTE

<p>Table D, column F shows the <u>total</u> payments from PrimeWest for all unmet need, as shown in Table C. The alternative OHP funding requirements (Table D, column A) are the numerator, and column F is the denominator, to calculate the total number of OHPs that could hypothetically be supported by these total payments – the result shown in Table D, column G. For example:</p> <p>--\$2,037,853 of total payments / \$200,000 funding per OHP = 10.2 OHPs could be “funded”</p> <p>The funding for each OHP is shown in column A – and could be \$150K, \$175K, \$200K, etc. That number can be divided into the number of visits to calculate a cost per visit – as stated in Note 10, this works out to \$151. For example:</p> <p>--\$200,000 funding for an OHP / 1,325 visits to the OHP = \$151 per visit average</p>
---

**Proposed Wage OHP**

\$30/hour salary = \$62,400/year Full time (52 weeks)  
+ \$16,800/year 28% Benefit Costs  
\$79,200/year Wage Cost

**Benefits include:**

2 weeks Vacation  
2 weeks Holidays/Sick Leave  
2 weeks Continued Education  
6 weeks Non-Clinical (approx. 30 days)

This leaves the OHP 1,840 hours of work/year. If OHP receives 33% of Adjusted Collection as a wage, similar to an Associates wage, with no adjustment for write offs, this OHP would need to produce \$129/hour to produce a profit. See formula below:

$\$79,200 \text{ (wage)} \times 3 \text{ (costs)} = 237,600 \text{ (total production)} / 1840 \text{ (hours of work)}$   
= $\$129/\text{hour}$

If the OHP produced \$200/hour x .93% (average collection rate)=  
\$ 186/hour would be collected  
-\$ 129/hour cost of OHP based on 33% commission  
= **\$57/hour profit (FFS -no MHCP)**  
(FFS-fee for service/private pay)

If the OHP were to pay all CE, Dues. If the OHP saw 50% MHCP and 50% FFS at the production of \$200/hour:

**MHCP**

\$100 x 40% reimbursement= \$40

**FFS**

\$100 x 93% collection rate= \$93

**Total Collection of \$ 133**

**\$133-\$129/hour for profit= \$4/hour x 8 hours/day= \$32/day profit**

**Scenario 2-OHP**

\$40/hour salary= \$83,200/year Full Time (52 weeks)  
\$23,296 /year 28% Benefit Costs (Same benefits as expressed)  
\$106,496 Total wage cost

This leaves the OHP 1,840 hours of work/year. If OHP receives 33% of Adjusted Cost as a wage, as I receive as an Associate with no adjustment for write offs, this OHP would need to produce \$129/hour to produce a profit. See formula below:



G2, p. 2

$\$106,496$  (wage)  $\times 3$  (costs) =  $\$319,488$  (total production) /  $1840$  (hours of work)  
=  $\$174$ /hour

If the OHP can produce  $\$200$ /hour in production, with an average collection rate of 93% allowing for discounts (ex: FFS write offs)

$\$200 \times 93\%$  collection rate =  $\$186$ /hour -  $\$174$ /hour = net profit of  $\$12$ /hour  $\times 8$  hours/day  
=  $\$96$ /day profit  $\times 230$  working days =  $\$22,080$  profit/year

If the OHP were to pay all CE, Dues, etc and saw 50% MHCP and 50% FFS at  $\$200$ /hour:

MHCP

$\$100 \times 40\%$  reimbursement =  $\$40$

FFS

$\$100 \times 93\%$  collection rate =  $\$93$

**Total Collection of \$ 133**

**$\$133 - \$174$ /hour for profit =  $\$-41$ /hour  $\times 8$  hours/day =  $\$-328$ /day LOST PROFIT!**

## **THE ECONOMICS FOR OHP**

1. Wages are based on the typical associate agreement that allows 33% of all Adjusted Gross-66 2/3 is allocated to the overhead.
  - A. MN TAX
  - B. Other wages 25% excluding overseeing dentist
  - C. Materials
  - D. Rent
  - E. Office expenses, etc.
2. Not included
  - A. Dentist compensation
  - B. Continued education cost
  - C. Failed/missed appointment that may effect gross production/hour
  - D. Potential to increase productivity of Dentist/hour by altering procedures to a higher productivity.
  - E. Assume clerical and other expenses are the same expanding into position at the cost of the Dentists contract.

**G3 – Children’s Dental Services**

**Children's Dental Clinic**

<b>OHP financial impact scenario spreadsheet: YEAR 1</b>						
Variables	Annual Costs	Annual Encounters	Cost/ Encounter	Avg. Revenue/Encounter	Net Revenue/ Encounter	Net Revenue/Yr
OHP Salary	80,000	1,440	55.56	200		
OHP Fringe	22,400	1,440	15.56			
Overhead - all inclusive, DH, RDA, etc	184,800	1,440	128.33			
Supervision + referred DDS procedures	20,000	1,440	31.25			
leasehold improvement	60,000	1,440	41.67			
equipment	100,000	1,440	69.44			
working capital	50,000	1,440	34.72			
other		1,440	0.00			
other		1,440	0.00			
other		1,440	0.00			
<b>Totals</b>	<b>517,200</b>	<b>1,440</b>	<b>376.53</b>	<b>200</b>	<b>-176.53</b>	<b>-254,203</b>
<b>OHP financial impact scenario spreadsheet: YEAR 2</b>						



## G4 – Craig Amundson

Draft as of 10/23/2008

October 22, 2008

To: Ellen Benavides  
Kristine Gjerde

From: Craig W. Amundson, D.D.S.

Dear Kristine and Ellen,

My thoughts on economic analysis are summarized below. I have retained the term draft since this is my own work and has not been reviewed by others. While I think it should be distributed I will continue to consider it draft until it has been reviewed by others, including Chris Reisdorf since I am using data from DHS programs.

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Determining a detailed analysis of the economic impact of the implementation of an oral health practitioner, that is a dental therapist or an advanced dental hygiene practitioner will be challenging. There are multiple variables and multiple unknowns involved. We will be required to make a significant number of assumptions related to both the practitioners' performance and how the health care provider market will respond.

One would expect that the cost of care at the unit or patient level would improve based on an assumption that dental therapists and advanced dental hygiene practitioners will have an earnings requirement that is less than that of a dentist performing similar functions. It also assumes a level of production that allows the earnings cost advantage to affect the unit or patient cost of care.

At a system level the purpose of these providers is to improve access. Success in that endeavor will yield an increase in related health care services provided. This positive result will necessarily increase the aggregate cost of providing care to the target population.

A detailed analysis of the impact of dental therapists and advanced dental hygiene practitioners on the practice economics would require a great deal of effort, complex modeling and assumptions about a significant number of variables, some known and some unknown. The comments in this document are based on an assessment of the potential impact on aggregate cost and will not deal with specific practice revenue and expense, or purchaser expense. It is assumed as a given that if cost performance improves, all participants in the system benefit, increasing the adoption rate in a number of settings.

Generally the critical expense to attend to in dental practice is the cost of human resources. The cost of most non-staff dental office variable expenses vary directly with production and are thus trailing expenses. Likewise the impact of physical plant on the

Draft as of 10/23/2008

operating statement of a typical dental office is relatively minor. Given that, the variation in either variable or physical plan expense that may be attributed to a shift in care to a dental therapist or advanced dental hygiene practitioner will not be significantly material to an economic analysis that meets the needs of the Oral Health Provider Work Group. The focus of this document is on the impact on human resource cost.

As an example, within the HealthPartners Dental Group clinic operations staffing expenses are 72% of a fully loaded cost structure, with dentist expense at approximately 38% of the staffing cost or 27% of fully loaded operating cost.

Because of the population served by the HealthPartners Dental Group and the care model used, the number of non-dentist staff members per dentist may be on the high side of typical practices. For the purposes here, it would be a reasonable general assumption that the expense of a dentist is approximately 1/3 of a practices cost structure. Others on the Oral Health Practitioner Work Group can test that assumption.

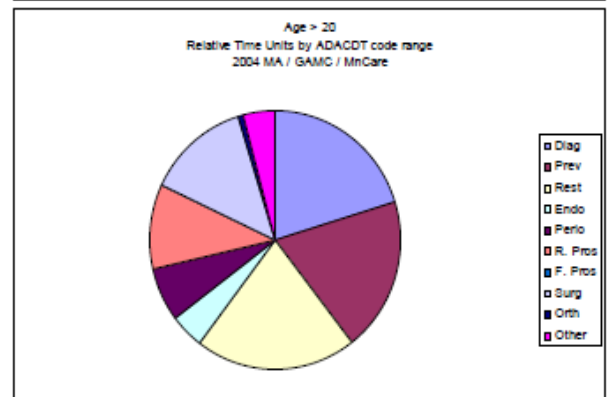
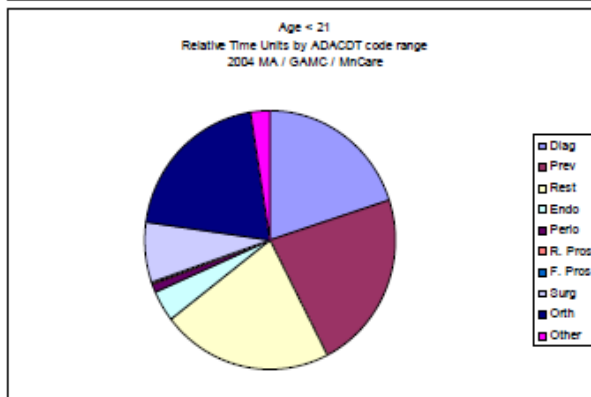
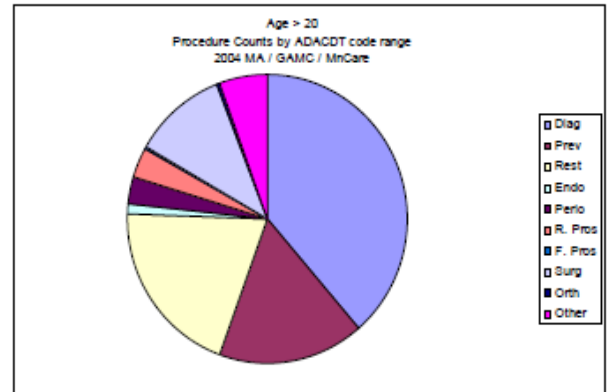
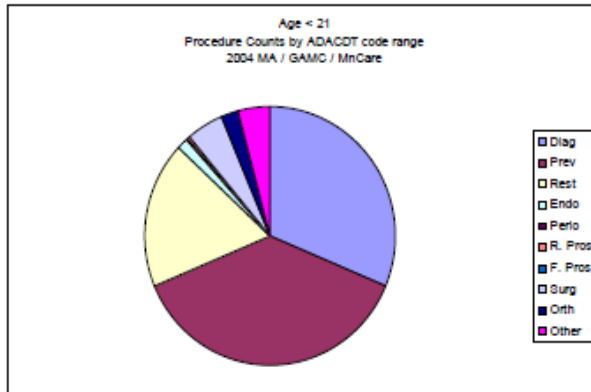
Since human resource costs are driven by time, this analysis uses a relative time unit (RTU) measure of production as a means to assess the potential impact of dental therapists and advanced dental hygiene practitioners on production potential and cost. The HealthPartners Dental Group has used a relative time unit system to manage its clinics and to provide data for actuarial purposes for over 30 years. Those values are used in this analysis.

As part of the Oral Health Systems project the Minnesota Department of Human Services provided state wide dental utilization data. That data is used here to provide a base for the analysis of potential economic impact of care provided by dental therapists and advanced dental hygiene practitioners. The data includes statewide utilization data for all counties for the year 2004 for persons receiving dental care that is covered by GAMC, Medicaid and Minnesota Care through the MnDHS FFS System. [This description of the data needs confirmation prior to distribution of this document in a final form] It is a safe assumption that the sample size is large enough that the representative service mix is reasonable for this analysis.

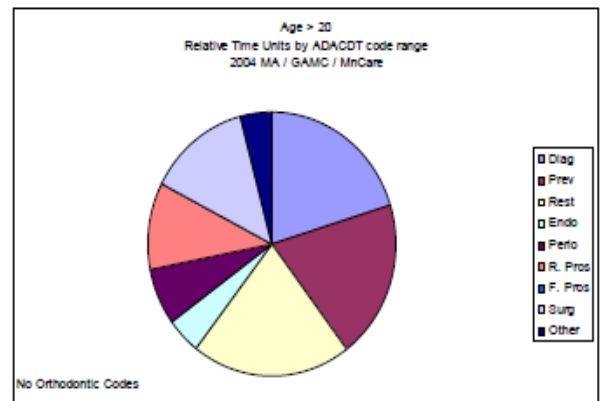
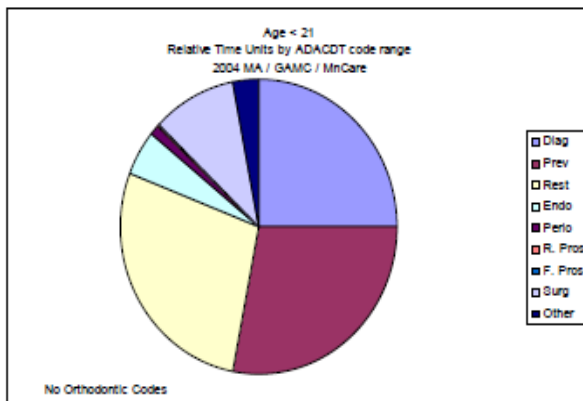
The following tables and charts with their explanations are intended to convey the data and present the analysis. The age cohorts in the data are ages 0-20 and 21 plus. In this data 37% of procedures and 33% of time units were dedicated to children age 0-20. 63% of procedures and 67% of time units were provided to people age 21 plus. Explanations are provided along with the charts that follow.

G4, p.3

The tables below represent the gross production included in the data. ADACDT codes were used to categorize the care. The data for people age 0-20 are on the left side. The data for people age 21 plus are on the right. The charts on this page represent procedure counts and relative time unit measures by care category.

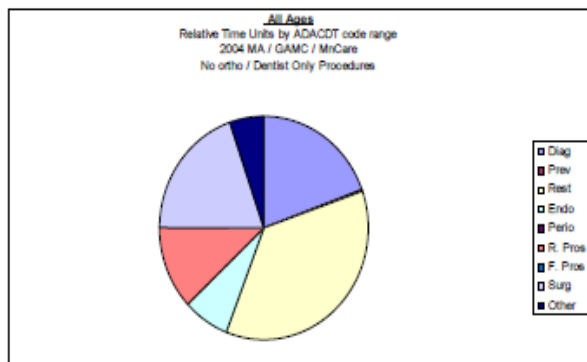
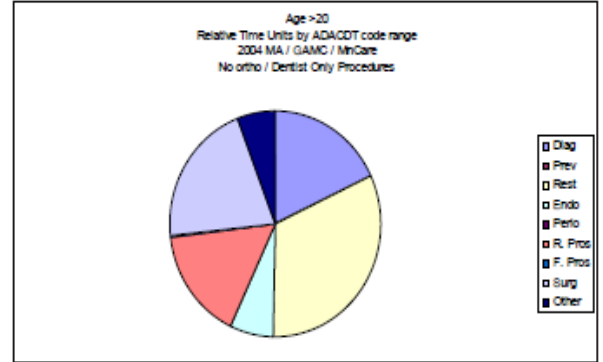
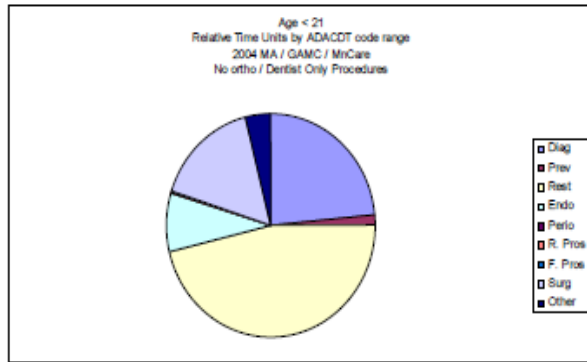


It is highly likely that the care provided by dental therapists and advanced dental hygiene practitioners, as the Oral Health Practitioner Work Group has discussed them, will have no impact on staffing for orthodontic care. For the purposes of this analysis the data related to orthodontic care can be ignored. The tables on this page represent the distribution of relative time units to categories of care with orthodontic care related data omitted. Note that space maintenance falls within the preventive care category in the ADACDT code system.

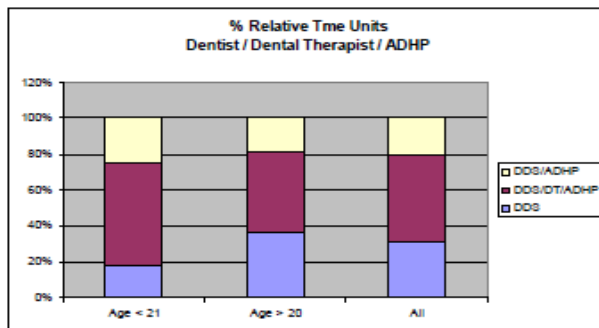
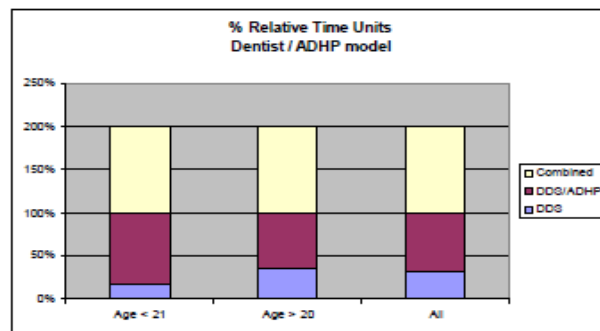
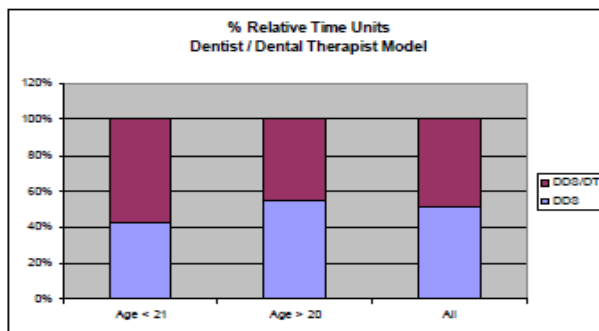


**G4, p.4**

While one significant benefit of implementing the advanced dental hygiene practitioner is to improve access by providing care in settings that apparently cannot support the practice of a dentist, the significant economic benefit will result from the dental therapists and advanced dental hygiene practitioners providing care that currently can only be provided by a dentist. The tables below represent the data after orthodontic services have been removed and after services that can currently be provided by a non-dentist practitioner have been removed. Of course, the primary impact is on preventive services and on imaging services within the diagnostic category.



This analysis assumes that there are a set of potential procedures that only a dentist can provide today that will be provided by a dental therapist or an advanced dental hygiene practitioner. It assumes that the advanced dental hygiene practitioner will have the capability to provide exams and diagnoses within scope of practice and that the dental therapist will not. The following tables represent the potential relative time unit allocation of procedures that currently only a dentist can provide to these new practitioners in three scenarios.



For all patients and using a dentist / dental therapist model, 48% of the relative time unit production that can currently be performed only by a dentist would be eligible for care by a dental therapist. The amount is higher for children, 58%, and lower for adults, 45%.

For all patients and using a dentist / advanced dental hygiene practitioner model, either with or without a dental therapist, 69% of the relative time unit production that can currently be performed only by a dentist would be eligible for care by an advanced dental hygiene practitioner. The amount is higher for children, 82%, and lower for adults, 64%.

Significant assumptions are necessary to place this information in an economic context. The major assumptions include: (1) the difference in earnings requirements between a dentist, a dental therapist and an advanced dental hygiene practitioner (2) the percentage of procedures that can currently be provided by only a dentist that will be provided by either a dental therapist or an advanced dental hygiene practitioner. A third variable that will influence economic outcomes at a practice level is related to the use of dentist resource that will be made available as care is provided by a dental therapist or advanced dental hygiene practitioner.

It is beyond this document to model out details related to those assumptions. For illustrative purposes assume that the earnings requirement of an advanced dental hygiene practitioner is 40% of the earnings requirement of a dentist. Assume that the practice moves 50% of the eligible services from a dentist to an advanced dental hygiene practitioner. That would free up approximately 35% of dentist time based on this service mix and replace it with less costly provider time. 35% of dentist time, assuming dentist cost is 1/3 of practice expense, is 12% of total practice expense. Replacing that time with the less expensive time would theoretically yield a savings of 7% based on a fully loaded practice expense. In a typical practice settings one would assume the dentist time that is made available would be used to provide care that would have a significant positive revenue potential. While a 7% savings is significant, the added revenue potential would provide a benefit to the practice as well.

I assume we will discuss this and other models within the Oral Health Practitioner Work Group or in the resulting report.



## G5 Apple Tree Dental



### Oral Health Practitioner (OHP) – Financial Impact Scenario – Apple Tree Dental Minnesota Department of Health OHP Work Group October 2008

#### Summary

Apple Tree analyzed all services provided by a group of our dentists, hygienists and dental assistants during a one-year period. Services were provided at an outpatient clinic and also delivered on-site at a variety of community-based settings. Actual income and expenses were also analyzed for this one-year baseline period. In the analysis that follows, this baseline sample is referred to as the “Current Model.”

To predict the impact of adding *oral health practitioners* to our teams, overall clinical staffing levels were changed. Oral health practitioners were added and the numbers of dentists, hygienists, dental assistants, and others were adjusted as needed to produce *a service mix that would be identical to the services delivered in the baseline sample*. The resulting projection is referred to as the “Oral Health Practitioner Model.”

In both models, a total of \$5.4 million of dental services (submitted charges) were delivered.. Uncompensated care totaled \$1.9 million, with net revenue of \$3.6 million in both models. Salaries and benefits for all staff were identical in both models, with the exception of the *oral health practitioners*, which for this analysis were assumed to have completed a Master’s Degree. Total salary and benefits for oral health practitioners were set above that of current dental hygienists and at 66% of an average dentist’s compensation.

For the baseline year, more than 65,000 specific services were provided, and then categorized by ADA categories and codes. Those services that could potentially be delivered by an *oral health practitioner* rather than a dentist were identified and a new overall staffing model needed to deliver an identical mix of services was constructed.

*Apple Tree’s analysis projects that the addition of oral health practitioners to our workforce could reduce our overall costs by approximately 11%. This translates into a savings of about \$50,000 per full-time equivalent oral health practitioner, per year. In addition, fewer dentists were needed to perform the identical mix of services. The addition of oral health practitioners into our integrated team model would allow expansion of our programs to serve additional MCHP patients in need of dental care.*

#### Assumptions in the Oral Health Practitioner Model

- Dental team members function at nearly optimal levels based on their skills and education.
  - Dentists provided *advanced* diagnostic, restorative and surgical services as well as all endodontic, prosthodontic and orthodontic services. Dentists serve as dental directors, providing supervision of oral health practitioners, hygienists and other staff working remotely at community sites.
  - *Oral health practitioners* provided *basic* diagnostic services, restorations and extractions.



Oral Health Practitioner (OHP) – Financial Impact Scenario – Apple Tree Dental  
Minnesota Department of Health OHP Work Group October 2008

- Dental hygienists provided preventive services for both dentists and *oral health practitioners*.
- The total number of assistants and hygienists remained unchanged in the models.
- For this analysis, the *oral health practitioner* was assumed to hold a Masters Degree.

### Income/Expense Statement

	<u>Current Model</u>	<u>OHP Model</u>	<u>Gain (Loss)</u>
<b><u>Revenues</u></b>			
MHCP Services	3,626,000	3,626,000	
Other Services	<u>1,852,000</u>	<u>1,852,000</u>	
Total Program Revenue	5,478,000	5,478,000	
(Uncompensated Care)	<u>(1,904,000)</u>	<u>(1,904,000)</u>	
<b>Total Net Revenue</b>	<b>3,574,000</b>	<b>3,574,000</b>	
<b><u>Expenses</u></b>			
Personnel	2,285,000	2,177,000	(108,000)
Other	<u>1,535,000</u>	<u>1,535,000</u>	
<b>Total Expenses</b>	<b>3,819,000</b>	<b>3,712,000</b>	<b>(108,000)</b>
<b>Net Income (Loss)</b>	<b>(245,000)*</b>	<b>(138,000)</b>	<b>108,000</b>

\* For this sample of services, Apple Tree Dental sustained operating losses. These losses were offset by grants and other earned income the organization received.

### Final Thoughts

This analysis did not examine the potential impact of either Baccalaureate level *oral health practitioners* or two-year international *dental therapists*. Both Metropolitan State University and the School of Dentistry are planning programs at higher educational levels and as a result may not offer the same level of cost savings as international *dental therapist* programs.

Apple Tree Dental's analysis supports the conclusion that oral health practitioners could be cost-effective new team members, playing front-line clinical roles in a nonprofit, community-based collaborative practice.

## G6 – Community Dental Care

### OHP Impact on Provision and Access to Dental Services

CDentC intends to hire 2 OHP's before the end of the year. We estimate it will take up to six months to train each OHP and have them working to full production. Once they are working at full capacity, we estimate each OHP will provide approximately 1,400 – 1,500 patient encounters per year. It is our belief that besides the obvious impact of increasing critical access for underserved populations, hiring OHP's will have a long-term economic impact for our clinic—increased production will mean increased clinic income.

Some **background information** about Community Dental Care:

- Two clinic locations — East St. Paul and Maplewood
- Each location has 16 operatories
- Maplewood clinic has expanded hours Monday - Friday (7:30 AM – 9:30 PM). This is the equivalent of two practices in one location on a daily basis.
- Combined, both clinics are expected to serve about 13,000 patients in 2008.
- 90+% of patients are on public programs.
- 50% of patients are children.
- 80% of patients are a minority with 60% of Asian descent (Hmong, Laotian or Karen/Burmese).
- The East St. Paul Clinic is located within a dental health professional shortage area.

### Summary of Total Costs vs. Production Revenue

The following table shows a rough estimate of start-up and operating costs involved with hiring one OHP and the production revenue expected. Explanations of how numbers were derived follow the chart.

Per OHP	Estimated Start-up costs	Estimated Operating costs	Total Estimated Costs	Total Estimated Revenue
Year 1	\$20,000	\$228,000	\$248,000	\$240,000
Year 2	—	\$273,600	\$273,600	\$300,000

#### Estimated start-up costs include:

- \$8,000 — Supervising dentist/trainer: Dentists produce approximately \$200/patient. Supervising dentists will lose an estimated 2 patients/day production time as they train OHP's during the first month. To encourage dentists to be willing to participate in training, we have found we need to compensate them for loss production time. Therefore, it will cost the clinic approximately \$400/day or \$8,000 during the first month.
- \$12,000 — Equipment: Before we can hire OHP's, we need to purchase additional exam, sealant, operative and hygiene cassettes with instruments and Cavitron ultrasonic scalers. Per OHP, we estimate we need additional equipment totally approximately \$12,000.

#### Estimated operating costs:

- Clinic operating costs are estimated at an average of \$190/patient. These costs include salaries/wages for dentists; wages for 4 support personnel (receptionist, dental assistant, finance, administrative); and clinic overhead.
- Operating costs (\$190/patient) are a conservative estimate for one OHP at 4 patients/day x 20 days/month x 6 months; and 6 patients/day x 20 days/month x 6 months for Year 1. For Year 2, they were estimated at 6 patients/day x 20 days/month x 12 months.

**Estimated revenue:**

- We estimate typical clinic production per dentist/OHP at \$200/patient.
  - We estimate each OHP will treat approximately 4 patients/day for the first six months.  
( $\$800/\text{day} \times 20 \text{ production days/month} = \$16,000/\text{month}$ )
  - After six months, as OHP's become more skilled, we expect them to increase their production to approximately 6 patients/day. ( $\$1,200/\text{day} \times 20 \text{ production days/month} = \$24,000/\text{month}$ )
  - We estimate OHP's will be paid either an hourly wage between \$40 - \$50/hour or a percentage of production (26%).
- 
- 

**Estimated Start-up Costs to Place OHP in Rural Areas**

Dr. Peterson has provided a very rough estimate of start-up costs to place an OHP in a rural area:

- \$60,000      Leasehold improvement
- \$100,000    Equipment for a two operatories
- \$80,000      OHP Salary/year
- \$50,000      Working capital

## Expanded Access Through Proposed OHP Collaborative Management Agreement

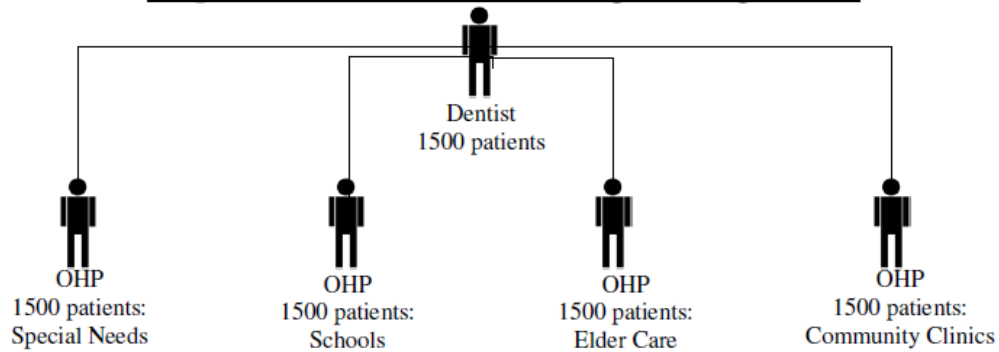
### Current



Dentist

1500 patients (standard per year)

### Proposed with Collaborative Management Agreement



**Total with Collaborative Management Agreement = 7,500 patients**

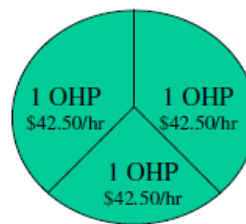
## Economic Comparison of Dentists and Oral Health Practitioners

### Dentist Cost Distribution



1 dentist per 1500 patients  
100% of cost  
1500 patients

### OHP Cost Distribution



3 OHPs (1500 patients each)  
Cost split 3 ways  
4500 patients

\*Potential scenario based on estimated hourly pay for an oral health practitioner

**G8 University of Minnesota School of Dentistry Dental Therapy Program**

Facility upgrades, equipment acquisitions, and furnishing	\$388,000
Faculty and staff recruits	\$645,050

**University of Minnesota School of Dentistry  
Masters in Dental Therapy  
Tuition and Fee Costs**

		<b>Yr 1</b>	<b>Yr 2</b>	<b>Yr 3</b>
<b>TUITION*</b>	Resident			
	(\$3,975/semester--\$303/credit)	7,950.00	10,071.00	10,071.00
<b>TUITION*</b>	Non-Resident			
	(\$9,790/semester--\$745/credit)	19,850.00	24,795.00	24,795.00
<b>FEES</b>	Equipment Fee (Equipment Replacement and IT fee )	400.00	600.00	486.00
	Student Service Fee (Required fee for all University students)	673.00	1,009.00	673.00
	Year 2 Course Fees	38.00	0.00	0.00
	Disability Insurance (Yearly-charged fall semester)	78.00	78.00	78.00
	Instrument Usage Fee	1,600.00	2,524.00	1,228.00
	Instrument Replacement Fee (Average breakage-costs may vary)	75.00	75.00	75.00
	Misc. Fees (GAPSA, MPRIG, CFACT, Transportation, Stadium)	145.00	145.00	97.00
<b>COSTS</b>	Total Education Costs – Resident	10,959.00	14,502.00	12,035.00
	Total Education Costs - Non-Resident	22,859.00	29,226.00	27,432.00

\*Not inflation adjusted

**University of Minnesota School of Dentistry  
 Bachelor of Science in Dental Therapy  
 Tuition and Fee Costs**

TUITION*		Yr 1 +	Yr 2 ▲	Yr 3 ●	Yr 4 ●
	Resident (\$3,975/semester--\$303/cr)		7,950.00	7,950.00	10,071.00
Non-Resident (\$9790/semester--\$745/cr)		19,850.00	19,850.00	24,795.00	24,795.00
FEES	Equipment Fee (Equipment Replacement and IT fee )	0.00	400.00	600.00	486.00
	Student Service Fee (Required fee for all University students)	673.00	1,009.00	1,009.00	1009.00
	Year 2 Course Fees (Oral Anatomy Manual / Stone Study Teeth)	0.00	38.00	0.00	0.00
	Disability Insurance (Yearly-charged fall semester)	78.00	78.00	78.00	78.00
	Instrument Usage Fee	0.00	1,600.00	2,524.00	1,228.00
	Instrument Replacement Fee (Average breakage-costs may vary)	0.00	75.00	75.00	75.00
	Miscellaneous Fees (GAPSA, MPRIG, CFACT, Transportation, Stadium)	145.00	145.00	145.00	97.00
COSTS	Total Costs - Resident	8,846.00	11,295.00	14,502.00	13,044.00
	Total Costs - Non-Resident	20,746.00	23,195.00	29,226.00	27,768.00

- \* Not inflation adjusted
- + General college courses
- ▲ Combination general college and School of Dentistry
- School of Dentistry

## **G 9 – Metropolitan State University**

10/20/08

Although this kind of logistics involved in producing an oral health practitioner is not asked for in the legislation, I have put together some numbers that outline our costs and anticipated revenue for the program, given the current set of circumstances. As you know, tuition rates are set by the MnSCU Board and are expected to rise each year. Please let me know if you need additional information. Thanks.

### Regarding bricks and mortar:

We will be using the Normandale state-of-the-art dental laboratory, clinic, and classrooms for the graduate program clinical courses, which will be taught by experienced dental educators and University faculty with terminal degrees. Some of the didactic courses in the graduate program will be taught at Metropolitan State University. Both campuses have adequate classroom space for offering the program. We are currently in the pre-design process for a new Health and Science building at Metropolitan State University. This project would enable us to have the entire program on this campus or to expand the numbers by using both campuses. 2014 is the earliest this could be accomplished; however, the progress of the program is not dependent on any foreseeable capital requests or projects.

### Regarding tuition and fees:

Our current graduate tuition and fee is \$350.00 per credit. We anticipate charging between \$1500.00 and \$2000.00 for the five clinical courses. The total amount of money generated by 15 students for 44 credits therefore is approximately \$380,000.00.

### Regarding the cost of producing a student:

We anticipate annual personnel costs for faculty and administrative staff to be the highest at approximately \$290,000.00 (including fringe); and we anticipate that an operating budget of approximately \$30,000.00 would be required. This may be slightly higher in the start-up phase of the program to cover marketing, and other support services for students.

In summary, we are confident that our budget is more than sufficient for operating this program for approximately 15 students per year. I would remind you the staff and Working Group that MnSCU is the lowest-cost provider of graduate-level professional education in Minnesota, and enjoys the full confidence of our regional and professional accreditors. If there is any basis for concern about the costs of preparation for health care professionals in Minnesota, the sector within which MnSCU's programs reside is the unlikeliest place of all in which to look. This fact is, in all probability, not unrelated to the minimal concern about program costs reflected in the legislative language that gave the Working Group its charge. Legislators know that the state subsidies they continually allocate to MnSCU underwrite the reasonable costs of our offerings.

Marilyn Loen, Ph.D., R.N.  
Dean, College of Nursing and Health Sciences  
Metro State University



## **Appendix H – Correspondence from Work Group Members to the Chair**

Regarding an editorial article published in the Duluth News Tribune, September 17, 2008.

"Patrick Lloyd" 9/18/2008 9:12 AM

Joan –

Thank you for taking my call yesterday, and for your help in sharing the attached article and this email with members of the Work Group. I appreciate Kristine's with the distribution of this material. I wanted to make sure you - and they - heard from me directly that it was not at all our intention to initiate an opinion piece on this topic. As you know, we have a dental clinic at the Hibbing Community College and send our students to the area for four weeks to treat patients. Several of us were traveling to Hibbing to talk with community dentists about the clinic and the dental school's outreach program, and to share other dental school news (about class size, technology advances, etc.). At that meeting with area dentists, we planned to touch on the school's participation as a Work group member and our most preliminary thoughts about how a new mid-level provider training program might move forward.

We stopped in Duluth to talk about our Hibbing clinic. We also talked about our other outreach sites and how we're educating students in community-based clinics as a way of addressing unmet needs of patients. We discussed how our outreach sites are also intended to instill in our students a sense of professional responsibility to meet the needs of the underserved, and to encourage them to consider practicing in outstate communities after graduation. The mid-level provider issue was brought up and I did say that we were a member of the Work group that was discussing recommendations to the legislature about how the initiative might move forward. I was surprised by much of what appears in the article (and what doesn't appear) based on my recollection of the discussion.

Patrick Lloyd, D.D.S., M.S.

## UNIVERSITY OF MINNESOTA

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*Twin Cities Campus*

*Patrick M. Lloyd, D.D.S., M.S.  
Dean, School of Dentistry  
Professor, Division of Prosthodontics*

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November 12, 2008

Joan Sheppard, DDS  
Minnesota Board of Dentistry  
University Park Plaza  
2829 University Avenue, SE,  
Suite 450,  
Minneapolis, MN 55414-3246

Ms. Ellen Benavides  
2349 Commonwealth Ave.  
St. Paul, MN 55108

Dear Dr. Sheppard and Ms. Benavides:

As our workgroup moves towards its concluding sessions, I want to offer a few thoughts on the key issues we are discussing.

They are focused on three issues:

1. Level of supervision

The state of Minnesota is moving into an uncharted area of dentistry. Based on my experience in dental education, I believe it would be beneficial to defer, initially, to a more conservative level of supervision. Regular review and evaluation will allow for the possibility of expanded supervision levels in the future. It is worth noting that the Minnesota Dental Association's current support of an indirect level of supervision represents significant compromise since the beginning of this process.

2. Level of education

All oral health practitioners must be educated and trained to the highest level of performance as defined in the license to practice. Education and training, regardless of the institution, must produce a graduate who is competent in all treatments to the level of supervision for which a license to practice is awarded. In every health profession, curriculums are based on licensure exam standards, not the parameters of individual collaborative management agreements. This is a critical concept in understanding the time and effort expended in training an oral health practitioner.

3. Educational programs

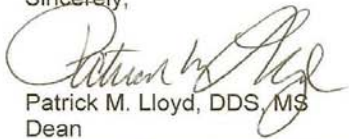
With the limited time remaining, I believe we would be best served by focusing on recommendations dealing with scope of practice and levels of supervision. Both the

**Driven to Discover<sup>SM</sup>**

University of Minnesota and MnSCU programs will respond appropriately to any final legislative decisions regarding the training and practice of oral health practitioners.

I hope you will take my comments in the constructive spirit in which they are offered. If you would like to share this correspondence with other members of the workgroup, I will leave it to your discretion.

Sincerely,

A handwritten signature in black ink, appearing to read "Patrick M. Lloyd".

Patrick M. Lloyd, DDS, MS  
Dean  
Professor, Department of Prosthodontics

c: Sanne Magnan, MD, Commissioner, Minnesota Department of Health

**From:** Chris Carroll <pedsdent@hbc.com>  
**To:** Kristine Gjerde <Kristine.Gjerde@state.mn.us>  
**Date:** 11/19/2008 2:19 PM  
**Subject:** Fwd: collaborative agreements / community dental care

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Kristine:

I wish to share this with the work group. Would you please distribute it for me. In my latest update to my specialty organization, I asked for feed back on the kind of experiences, positive and/or negative, they have had with the collaborative agreements. This is one of the response that I got back. Dr. Winters has had a wealth of experiences which she articulates well and with sincerity. It is not global in scope, but rather a little slice of the picture that I found informative and perhaps useful to us all.

Begin forwarded message:

Yes, please feel free to share with the work group.

You can also let the work group members know that I still try to help the access problem, even though I don't work for a nonprofit clinic anymore: I am a critical access provider, seeing over 40% of my patient encounters with patients on MHCPs. We work with interpreters; we set up generous no interest, no credit check payment plans for those patients without insurance. I even drive by cornfields on my way to work, and see a lot of patients from rural areas.

I am just annoyed when some groups claim that private practice dentists aren't doing anything to help the access issue - some of us are.

Thanks again for your hard work.

Kerry

On Wed, Nov 19, 2008 at 10:40 AM, Chris Carroll <[pedsdent@hbc.com](mailto:pedsdent@hbc.com)> wrote:  
Insightful, experienced, reasoned, rational.....may is share this with the work group?

chris

On Nov 18, 2008, at 9:43 PM, Kerry G. Johnson Winters wrote:

Chris,

Thank you so much for your work on this work group. I think you are doing a great job. As requested, I thought I would share some of my experience with collaborative agreements and seeing patients in nontraditional settings:

I worked with Apple Tree Dental when I first got out of school 3 years ago. They

were starting to utilize "teledentistry" in conjunction with collaborative agreements with hygienists who were also Apple Tree employees. I had collaborative agreements with RDHs. The hygienists would go out to Head Start centers (3-4 year olds), and take intraoral photos, do a prophylaxis, fluoride and dental assessment and preliminary charting. It was then my job to look through all of the charting with the photos and try to confirm the charting, caries or no caries, and develop a treatment plan. Sometimes it was obvious, sometimes not. It was my feeling that the intraoral camera used was not as diagnostic as a good dental light, mirror, and my own eyes. Maybe it would be different with video, or a different operator. They didn't take radiographs at this time.

It was then my job to go to the Head Start centers and try to treat the kids. We would go to Pipestone and Worthington and the local Coon Rapids Head Start centers. In Pipestone and Worthington, you felt like you had no choice but to get the treatment completed while you were there, even if they were uncooperative - the nearest pediatric dentists who took Mn MA were in Mankato. (the closer South Dakota pediatric dentists didn't accept MN MA due to low reimbursement rates.) We had digital radiographs, no nitrous, regular dental units and chairs (Apple Tree does have some nice portable equipment).

But I tell you, trying to complete comprehensive dental treatment on a 3 year old, who probably speaks Spanish better than English, in the back room of a Head Start center/church/old school without the amenities of home (nitrous!) is really hard work. You were only there for 1-2 days, and trying to complete a mouth full of ideal restorations was very difficult. I ended up doing a lot of ART with glass ionomer, hoping to get the caries process under control, rather than the treatment I would have preferred, nice SSCs!!

My position with Apple Tree was a hard job that encouraged me to think about working in a private practice, which is what I did. The OHP is going to feel the same way about this - they will prefer to treat patients in the safety and convenience of a regular dental office than in the back corner of the cafeteria at a homeless shelter.

I have been reading the materials from the safety net coalition about how we could get all this treatment completed for people in community settings like schools, and nursing homes, and homeless shelters, etc. if there were only providers there to complete the treatment. It is my experience and opinion that treatment in these settings is difficult and not ideal, especially on the youngest and oldest of people. I can't believe that every nursing home administration company will install a dental operatory in every nursing home when the OHP is available, as a recent letter on the OHP website would have you believe. They don't understand the costs involved, or the difficulty in providing treatment. Extracting a tooth is different than fixing an ingrown toenail for Grandma. And doing a pulp and SSC on a 3 year old is much more difficult than a quick influenza vaccination or checking an ear and writing a prescription for an ear infection.

Sorry for the rant. Anyways, it's my experience that collaborative agreements worked well, when the RDH acted as triage for dental treatment needs, and preventive treatment and education provider. They basically acted as community dental health worker for me. Our jobs were linked - the collaborative agreement just allowed the RDH to work "independently" off-site. I think I would have been more uncomfortable

with a collaborative agreement if they were administering local, scaling and root planing, etc.

Secondly, I know dental care in "alternative" treatment settings is difficult, and not ideal. The OHP is not going to be specially qualified to work in these settings (unless this is part of their training?). I don't know that a provider with less experience is the best choice to provide care in a less than ideal situation.

Thanks again for your hard work. It is appreciated!

Kerry

"Tarren, Patricia C" 12/1/2008 3:06 PM

Bob Feigal has given me permission to share his opinion with the work group. Would you please distribute it. Thank you, Pat Tarren

Colleagues, Is there room for compromise in the supervision debate through the use of technology and new communication devices?

The OHP debate is presently stuck in a hard place regarding correct supervision. I preface these comments with a question to Chris – has a compromise on supervision through the use of distance link-ups been discussed? It seems to me that the model for assessment of patients and formal quality control methods already exists in medicine by linking practitioners with on-line photography and scans. It certainly could be used in dentistry through simple intra-oral video, or digital photographs plus digital radiographs.

We are working on a new model of practitioner here. Thinking outside the box toward newer methods of oversight is appropriate as well. One of the perceived benefits of a mid-level practitioner – improving access to care – may well depend upon the mid-level person working in places where it has been impossible to recruit and staff with dentists. Thus the argument for “distance supervision”. A formal system set up to have a distant dentist reviewing treatment plans, pre-op diagnostics, and post-op results would be a method of assuring that the quality of care does not slip. I leave it to the policy makers to determine if this be done on all, or some, of the patients, or if quality control systems mandate a certain percentage of patients be reviewed.

My experience in training in expanded functions over the years supports what others have said – trainees in expanded functions are good at what we train them to do. They show great skill in repetitive functions and are meticulous in following protocols. They may actually be better at protocols than dentists overall, since dentists often do not follow manufacturers’ recommendations because dentists may think they know a better way!

I have worked with intra-oral video for diagnostic purposes in clinical studies and can assure you that often our diagnoses are better with the video than with normal mirror and explorer exams. It is quick and simple to document a mouth on video and sending it out on line is a simple step. The same with films. The added technology expense might be well worth it if access is improved and professional standards are maintained. So, whether the technology is used for real-time support of a distant practitioner or for follow-up and quality control, it appears that this might be a way out of the “supervision deadlock”.

Bob Feigal

Patricia Tarren BDS MPhil  
Staff Pediatric Dentist  
Department of Dentistry  
Hennepin County Medical Center  
Minneapolis, MN 55415

# UNIVERSITY OF MINNESOTA

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*Twin Cities Campus*

*Patrick M. Lloyd, D.D.S., M.S.  
Dean, School of Dentistry  
Professor, Division of Prosthodontics*

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December 4, 2008

Joan Sheppard, DDS  
Minnesota Board of Dentistry  
University Park Plaza  
2829 University Avenue, SE,  
Suite 450,  
Minneapolis, MN 55414-3246

Ms. Ellen Benavides  
2349 Commonwealth Ave.  
St. Paul, MN 55108

Dear Dr. Sheppard and Ms. Benavides:

I am writing to share a few thoughts and suggestions as the work group appears to be closing in on issuing a final report to the Minnesota Legislature. I must begin by expressing my frustration with the inability of the work group to come to consensus on many crucial issues.

As the Dean of the state's public School of Dentistry, it is my responsibility to provide the best training and education of dental professionals possible. I have a responsibility to my students and faculty, the University of Minnesota, the dental profession, and; perhaps most importantly, to the people of Minnesota that receive services from our graduates. I do not take this responsibility lightly; therefore I feel an obligation to express these thoughts to the members prior to final action on the report.

I believe that there is a place for a mid-level provider in the field of dentistry, and have stated numerous times that this person would be a valuable member of a dental team. I disagree that such a provider should be created based on an expansion of the scope of practice for dental hygienists. I believe that a separate and distinct new provider would fill the necessary role in this field. In fact, we have put together a team of dental education professionals within the School of Dentistry to design two training programs for this mid-level dental provider at the U of M. The work of this design team has been shared with you in a prior meeting, and is advancing through the approval process at the U of M. We will be seeking approval from the Board of Regents and the Minnesota Legislature for this new provider and to establish a scope of practice that is consistent with their training.

I want to paraphrase for your review some content of a letter I sent to Dr. Sheppard and Ms. Benavides on November 12, 2008, expressing two concerns that I feel are inadequately addressed in the report:

1. Level of supervision

The state of Minnesota is moving into an uncharted area of dentistry. Based on my experience in dental education, initially I believe it would be beneficial to defer to a more conservative level of supervision. Regular review and evaluation would allow for the possibility of expanded levels of supervision in the future. It is worth noting that the dental profession's current support of a mid-level dental provider, especially regarding the level



of supervision and scope of practice, represents significant evolution since the beginning of this process.

2. Level of education

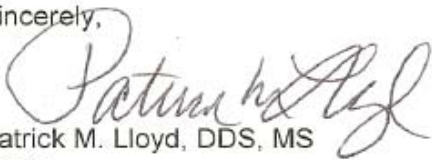
All oral health practitioners must be educated and trained so that they are able to perform at the highest level defined in the license to practice. Education and training, regardless of the institution, must produce a graduate who is competent in all treatments to the level of supervision for which a license to practice is awarded. In every health profession, curriculums are based on license exam standards, not the parameters of individual collaborative management agreements. This is a critical concept in understanding the time and effort expended in training an oral health practitioner.

These two principles are not matters for compromise, as they represent the core responsibility and accountability for the dean of any dental school, particularly one associated with a public land grant university. Unfortunately, my efforts to make these points were unsuccessful and there were no other academic health professionals represented on the work group familiar with and able to offer corroboration about the process of health education and the requirement to ensure that all graduates are prepared for the full extent, or highest level, of their licensure.

Finally, I must state that presenting this draft document – without major changes – as a consensus document would be disingenuous. Strong minority opinions on several contentious issues are absent from this document and represent a slight to the work done by those members who ultimately disagree with the direction of the final report. Furthermore, because there is no clarification as to who and how many are exactly represented in either the majority or minority opinions, readers will not be able to appreciate the basis for their collective positions.

As I offer these suggestions again, we will continue to advance the implementation of our model of a mid-level dental provider program (Dental Therapist) at the School of Dentistry, as I believe this is the logical next step to expand the field of dentistry to meet the oral health needs of Minnesotans.

Sincerely,



Patrick M. Lloyd, DDS, MS  
Dean  
Professor, Department of Prosthodontics

c: Sanne Mangan, MD, Commissioner, Minnesota Department of Health

December 11, 2008

## The More Perfect OHP

Other solutions may be acceptable in the other parts of the world where the standard of comprehensive care is lower and where people are isolated in remote areas, but in Minnesota, there is one clear place where a mid-level dental practitioner can be utilized to fullest advantage and where our collective and their personal investment will yield the highest returns. That place is within the existing, highly efficient dental delivery care systems.

A wide gap exists between what the dentist does and what the currently highest trained auxiliaries can do. A highly trained mid-level practitioner with a skill set which falls within that gap would greatly increase the capacity of the dental workforce. If their efforts were focused on the underserved, then the greatest amount of the unmet need would be addressed.

It would be a mistake to look upon the OHP as a solution for too much of the existing access problem. The level of care that would be required by nursing home patient, prisoners, indigent adults, etc. is beyond what could reasonably be expected of a mid-level practitioner. Other initiatives will be needed and are much more appropriate here. We should not dilute to ineffectiveness our sizable investment in the OHP by spreading their talents too thinly across too many aspects of the access problem. This is being realized by other countries as they are now transitioning away from their traditional, stand alone mid-level practitioner into one which is integrated with the entire dental team.

All this is especially true when it comes to children. We should not be too quick to accept a lower tier of care for our most precious citizens. Every reasonable effort should be made to insure that they receive the highest level of care in a dental home staffed by the most qualified dental team.

The advantages of having Minnesota's OHP be an integral member of the dental team are great and manifold. Optimal efficiency, productivity, scope of practice, career satisfaction and longevity, public safety, and use of talent and resources are best assured by this common sense approach. We should take full advantage of this opportunity and create the best OHP that we possibly can.

Chris Carroll, DMD  
Pediatric Dentist and Work group Participant



Dear Dr. Joan Sheppard,

I want to take this opportunity to thank you for serving as Chair of the Oral Health Practitioner (OHP) work group and providing leadership during and between meetings. You and the staff were challenged by the differing positions brought to the table as well as the process to reach consensus.

The Minnesota Dental Hygienists' Association (MnDHA) is committed to meeting the oral health care needs of underserved and underrepresented populations in Minnesota by addressing access at all levels. Furthermore, MnDHA supports any educational program that delivers quality, competency-based education and promotes the established standards of care that dentistry upholds. MnDHA supports both the MnSCU and University of Minnesota models presented during the OHP work group. Being that I was the appointed member of MnDHA to serve on this committee, I upheld policies established by the association's membership. MnDHA 2007 House of Delegates unanimously supported the Advanced Dental Hygiene Practitioner. The MnSCU model being offered through Metropolitan State University clearly reflects this directive. MnSCU will graduate an OHP who will work under general supervision utilizing a collaborative management agreement. This new dental team member will be capable of delivering care in settings that have struggled with access issues.

The MnSCU educational program has been in development for nearly three years and has been lead by experts in dental education. In April 2007 Metropolitan State University formed an advisory committee that includes seven dentists. The committee has met at minimum of once a month since its inception to review competencies, curriculum, admission standards, clinical enrichment sites, etc. This group of dedicated professionals will continue to meet as the program is implemented and outcomes are evaluated. The strength of the MnSCU OHP model is that it builds upon the competencies of a dental hygienist. This practitioner will be an experienced dental professional who is passionate about public health and committed to meeting the needs of the underserved. These experienced dental hygienists are those individuals who want to expand their current knowledge, skills, and abilities to address unmet oral care needs and become a new member of the dental team – an advanced practice dental hygienist.

Admission into the MnSCU master's program is contingent on an applicant being an actively licensed dental hygienist who has demonstrated work experience as a valued dental team member, showing documentation of 2400 hours of clinical experience, and certified in nitrous oxide inhalation sedation, local anesthesia and restorative functions. As you are aware, dental hygienists are already licensed to perform more of the preventive duties under general supervision than have been identified in the proposed OHP scope of practice outlined in the report. Most importantly, Minnesotans will receive the safe, quality and competent care they deserve from MnSCU educated and trained OHPs.

Please contact me at the address below if you have questions or need further information. You may also reach the MnDHA Governmental Affairs co-chairs by contacting Melissa Cozart at [melissacozart@gmail.com](mailto:melissacozart@gmail.com) or Sue Tessier at [Sue.L.Tessier@healthpartners.com](mailto:Sue.L.Tessier@healthpartners.com).

Sincerely,

A handwritten signature in cursive script that reads 'Colleen M. Brickle'.

Colleen M. Brickle, RDH, RF EdD  
MnDHA Representative  
[colleen.brickle@normandale.edu](mailto:colleen.brickle@normandale.edu)

OFFICE *of the* PRESIDENT

700 EAST SEVENTH STREET  
SAINT PAUL, MINNESOTA  
55106-5000

December 10, 2008

Joan Sheppard, DDS  
Minnesota Board of Dentistry  
University Park Plaza  
2829 University Ave. S.E.  
Minneapolis, MN 55414-3246

Dear Dr. Sheppard:

It was our privilege during the past few months to represent the Minnesota State Colleges and Universities system on the legislatively-appointed Working Group on the Oral Health Practitioner. We thank you for your service as the Chair of the Working Group. Given the participants' level of commitment to their positions on issues before the group, we did not reach consensus on some questions. However, we feel that members' views were heard openly, the group's work together was conducted in an even-handed and fair manner, and the final report accurately represents the Working Group's discussions and conclusions.

We support both the University of Minnesota and the MnSCU models of the OHP program presented to the Working Group. Different as they are, both can prepare graduates who will enhance the dental care team in Minnesota. We agree that there is an important role for U.M. graduates who will work under the on-site ("indirect") supervision of dentists, but we firmly believe that access is expanded much more through the MnSCU model.

Metropolitan State University's OHP program is led by prominent dentists and dental educators. It combines significant academic and clinical entrance requirements with a full Master of Science program. Its graduates will be fully prepared to address well-defined needs of under-served populations, as approved by their collaborating dentists. In order for these practitioners to extend access beyond its current limits, it is essential that they be authorized to practice under "general" supervision (without the dentist on-site) and to form diagnoses and treatment plans per their training. As has been documented, analogous practitioners in other nations and in Alaska have operated on this basis with sustained records of effective and safe care, on the basis of competent training program that are not as extensive as ours.

We look forward with you to the enactment of legislation that will give dental care teams a proven means of extending needed treatment to those currently without access to this basic right.

Sincerely yours,

Craig Amundson, DDS  
HealthPartners Dental

Marilyn Loen, Ph.D.  
Dean, College of Nursing and Health Sciences  
Metropolitan State University

TEL: 651.793.1900  
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AN EQUAL OPPORTUNITY EDUCATOR

December 11, 2008

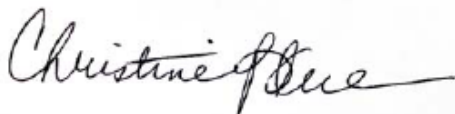
Dr. Joan Sheppard  
Minnesota Board of Dentistry  
2829 University Avenue SE, Suite 450  
Minneapolis, Minnesota 55414

Dear Dr. Sheppard,

I am writing to follow-up to an issue discussed at the last two meetings of the Oral Health Practitioner Work Group. As I stated at both the meetings, I feel very strongly that dental hygiene procedures be excluded from the scope of practice of the oral health practitioner. The specific procedures to which I am referring to are prophylaxis, full-mouth debridement, scaling and root planing, and periodontal maintenance. My rationale for this opinion is as follows. Currently, the job market for dental hygienists is flooded in the metropolitan area and in some rural areas of Minnesota. Requiring the oral health practitioner to perform dental hygiene procedures would place them in direct competition for dental hygiene employment positions. If the oral health practitioner happens to be a dental hygienist, then he/or she could practice under a dental hygiene license *and* an oral practitioner license and render dental hygiene care. In addition, dental hygienists can already practice in underserved areas under a collaborative agreement. In my opinion, it would be irresponsible for the state of Minnesota to duplicate a dental team member that is already in abundant supply.

Many work group members agreed publicly with this opinion. Yet, because we had already voted on the scope of practice, we were not allowed to amend our decisions. The State of Minnesota does not need more dental hygienists. The scope of practice for the oral health practitioner should shape the identity of this new member of the dental team and reflect a unique skill set that will expand dental care in Minnesota for the underserved.

Sincerely,



Christine Blue BSDH, MS  
Director, Division of Dental Hygiene  
School of Dentistry  
University of Minnesota

## **Appendix I – Alternative Proposals Submitted to the Work Group**

### **I 1 - OHP Mid-level Provider Proposal – Submitted by Joan Sheppard**

#### Preface:

The general impasse evident in our work group discussions has left us all in frustration. I have felt that we have, by nature, been mired in the details. Many of our discussions have broken down across the table along the lines of weighing increased access against patient safety. While this seems simplistic, both sides have very real concerns and issues, not to be ignored. At some point, if this OHP idea is to prevail in some way, shape, or form, as a method to increase dental access for those populations who are presently not receiving dental care, one or more of us are going to have to take the baby step across the line.

Many times while leaving our Work group sessions, I have thought “what if we tried this”, or “why can’t we do this”? Many times the limitation was the language restriction present in the current legislation, under which our Work group was compelled to comply. While it is not my intent to revisit any of our Work group decisions, or to undermine any of the final preparations and work of the MDH and BOD staff, which are under a time line to complete their obligations, I have taken the opportunity of the challenge of the “third option” to lay out an alternative plan. This plan uses new legislative language and incorporates ideas from both sides of the line.

#### General Description:

- I. “Settings” where a D.D.S. is present.

The OHP would perform a set of duties delineated in the “scope of practice”, in settings defined by the MDH, to increase dental access in populations defined as underserved. The OHP would perform these duties under Direct, Indirect, and General supervision as agreed upon in the scope. These settings, as defined would require a dentist’s presence, as well as the presence of other allied staff. All delegated duties already allowed in rule would be supervised by the dentist, including those delegated to the OHP. For example- restorations of primary and permanent teeth, placement of preformed crowns, pulpotomies, pulp capping, defective prosthetic appliance repair, in office relines, endo access openings, basic extractions of primary and permanent teeth, suture placement, reimplantation and stabilization, incision and drainage of abscess, would be allowed with the prescribed levels of supervision predetermined. (Direct or Indirect). Diagnosis would not be in the scope. I propose that these settings DO NOT require a Collaborative Management Agreement. A dentist is present and supervision is available and required. This describes approximately 90% of the settings we have approved in our Work group discussions.

- This is in direct conflict with the current language of SF 2942, which requires that all OHP services be provided through a CMA.

## I 1, p. 2

### II. “Settings “ where a D.D.S. is not present.

#### Prerequisite- “Internship”

Following an internship of 1000 hours after completion of an approved OHP training program, the OHP would be eligible to enter into a CMA with a supervising dentist . All requirements of the CMA language would apply. The dentist would be a licensed MINNESOTA dentist, and be responsible for accepting referrals from the OHP (or for making arrangements for referral). Through the CMA- the OHP would be able to provide the same duties included in the scope, or a more restricted scope negotiated with the supervising dentist’s approval. The level of supervision would be General (no dentist is present). Diagnosis would not be in the scope but could be done through electronic communications, where information is transmitted back and forth and an agreement as to the course of treatment is decided. Other options for decision-making and communication could also be used. These settings would comprise approximately 5% of those listed by the Work group and would require a Collaborative Management Agreement.

### III. “Settings”

Settings and Populations can be defined in legislation relating to access need. I propose that the MDH be responsible for determining the settings where statistics prove that the need exists, and that a dentist is unable to be present. These could be called ”critical” settings. The “setting”-ie the school, the organization, community group, etc.(not the OHP) would petition or apply to the MDH to be approved to hire an OHP without a dentist’s presence through the use of a CMA. This same setting would be asked to continue to justify this request on an annual basis, and be released from the approval when the OHP is terminated, or no longer needed. All other “settings” assume the presence of a dentist and levels of supervision apply. These could be called “non-critical” settings. The use of the MDH to certify these settings allows for tracking of these “critical” settings, in order to determine benefits, risks, costs, outcomes, and other statistics useful for measuring success.

### IV. “CMA”

-Uses a defined scope, has pathways for referral, filed at inception ,at annual renewal, and upon dissolution. All other restrictions/inclusions recommended by the Work group apply.

-Allow the OHP to supervise up to (2) RDAs through the CMA.

-Restrict the # of OHPs/D.D.S. to (2).

-Hygienists present at “critical settings” would be subject to their own CA as currently defined.

-In accordance with definitions of populations and settings, the OHP would be required to practice a minimum % of their time/procedures on access denied populations. This is regardless of the setting and with or without a CMA.

## I 1, p. 3

-The “setting” or organization would be required to provide convincing evidence that the circumstance precludes the ability of a dentist to be present.

\*The language in SF 2942 allows the scope to be restricted or narrowed by the CMA, but keeps the prescribed level of supervision the same. My proposal allows the scope to be the same or restricted, but the level of supervision to be expanded by the CMA, ie. General.

\* The current Hygiene “CA” allows the same scope of practice but changes the level of supervision to General.

### V. Rationale for Proposal

-The purpose of the OHP is to provide basic dental care for underserved citizens. It is not meant to replace the general dentist, or the dental specialist who provide comprehensive and complex dental care for the population at large

-The proposal weighs the need for access against the concerns for public safety.

-The proposal eliminates the possibility of the OHP “mill” in that these large clinic settings would have a dentist’s presence and be determined to be “non-critical” settings. The MDH would not approve these settings for a CMA circumstance.

-MDH is the gatekeeper for “critical” settings approval.

-This proposal utilizes the current framework of dental supervision of allied staff, the team approach –involving delegation of duties according to prescribed levels of supervision.

-Due to the availability of the DH in all non-critical settings- the recommendation is to remove the DH skills /duties from the scope. The DH could practice in “critical” settings through their own CA. Some OHPs may be dual licensed and can perform both scopes when a DH is unavailable.

### VI. Recommendation

I recommend the Work group consider this proposal as an alternative to the Draft legislation currently being forwarded. It must be made clear that the current language on SF 2942 does not allow this proposal, however, the legislature may be amenable to language changes if a proposal were to emerge with more Work group consensus. This proposal is open to additions/clarifications/and suggestions. It would be included in the “Report” document, as having been reviewed and endorsed.



## **Michael Flynn, Michael Perpich, Chris Carroll proposal, also identified as Minnesota Dental Association Proposal**

December 2, 2008

Dear Oral Health Practitioner Work Group Members,

We are writing today to ask your consideration for a realistic approach to the OHP issue that we think is best suited for all parties involved and most importantly for the oral health of Minnesota's citizens.

We are extremely disappointed with the final report draft that came out on November 26, 2008. A clear consensus has never been reached. The Department of Health draft report does not adequately represent the comments and concerns that have come from many committee members and we feel that it is important that these comments are reflected in the report language.

Clearly there is no consensus with this group in coming up with a unified resolution. With the submission of this report, there are now four different proposals that have been offered. Statements have been made that the impasse evident in our work group discussion has left us all in frustration and that both sides have real concerns that are not to be ignored. We feel that our positions and comments have definitely been ignored in the MDH work group report.

We have been asked to compromise, but in all reality we have come a long way while many proponents of the OHP have not moved from their original position from a year ago. Six months ago, many of us were opposed to the ADHP proposal. Yet, after many deliberations internally as well as through the work group discussions, we have come to support the concept of a new dental health worker if properly defined.

This OHP that is being creating by our work group has never been duplicated anywhere in the world, therefore we urge moving slowly and deliberately rather than jumping into unknown territory. We do not live in the Canadian Tundra or New Zealand Outback as we have seen in other countries. Nor is our government going to fully subsidize these workers to perform their duties as is done in every other country that has these dental team members.

The principles that we are standing for are based on sound and safe judgment and maintain the high standard of care that Minnesotans have come to expect. To ensure against complications, surgical procedures **MUST** be done under a minimum of indirect supervision with a dentist in the building and **MUST** be taught at an educational institution that is accredited to teach surgical procedures. OHP's could be allowed to do fillings on decayed teeth for both adults and children and could also be allowed to extract primary teeth as long as these procedures are performed after a dentists' examination. These irreversible procedures must come with dental oversight. Further, we believe that a collaborative management agreement is not necessary under proper dental supervision for surgical procedures.

We also propose that an OHP would be allowed to provide basic traditional preventive dental services, such as sealants, fluoride treatments, and oral health education, outside of a traditional dental setting under a collaborative management agreement with a dentist.

**I 2, p. 2**

In order to address the access issue, we propose that these new team members **MUST** perform over half of their work on low-income patients or those with barriers to care who have had difficulty finding and affording dental care in the past. With this caveat, the OHP could potentially be employed in any dental setting within the state where there is need.

We formally request that this report be incorporated into the final work group report, or at the very least be attached to it as the views of the majority of dentists in Minnesota.

We thank you in advance for your time and consideration.  
Sincerely,

Michael Flynn, D.D.S.  
Work Group Member

Michael Perpich, D.D.S.  
Work Group Member

Chris Carroll, D.D.S.  
Work Group Member

**MINNESOTA DENTAL ASSOCIATION RECOMMENDATIONS:  
ORAL HEALTH PRACTITIONER**

- Ensure that Oral Health Practitioners receive the same high quality dental education as dental students by being integrated into a dental educational program.
- Ensure that the Oral Health Practitioner program is taught in an educational institution that is accredited by the Commission on Dental Accreditation of the American Dental Association specifically to teach surgical dental procedures.
- Ensure that when an Oral Health Practitioner provides surgical dental procedures, the patient has first received an examination, diagnosis and treatment plan by a Minnesota-licensed dentist in active practice in Minnesota.
- Ensure that an Oral Health Practitioner be permitted to provide data collection (preliminary examination) solely for the purpose of assisting the dentist in examining, diagnosing and treatment planning.
- Ensure that when an Oral Health Practitioner provides surgical dental procedures, the OHP is under the indirect (on-site) supervision of a Minnesota-licensed dentist in active practice in Minnesota.
- Ensure that the Oral Health Practitioner scope of practice not include extractions of permanent teeth on either children or adults, but may include extractions of fully erupted primary teeth.
- Ensure that a collaborative management agreement for an Oral Health Practitioner is needed only to allow the OHP to provide basic preventive services in the absence of a dentist. (Because we recommend that when the OHP provides surgical procedures they be performed only under indirect supervision of a dentist (on-site), a collaborative management agreement is simply not required for such procedures.)
- Ensure that an Oral Health Practitioner not be permitted to prescribe any kind of medication. The OHP may only recommend over-the-counter medications to patients.
- To fulfill the legislature's intent to address dental access by creating a new type of dental worker, the Oral Health Practitioner must not be limited by practice setting, but must ensure that at least 50% of their patients are from underserved populations.
- Ensure that the economic impact of the Oral Health Practitioner is positive in a variety of practice settings, that the oral health of patients treated improves, and that the cost of care either remains the same or decreases.

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- Measure the extent to which dental access and long-term oral health improves for low- and no income uninsured and underserved patients by conducting evaluations within a defined population, i.e. patients enrolled in a public dental assistance program.
- Control the costs of Oral Health Practitioner education and dental services by not requiring a graduate degree for OHP licensure and by not limiting admission solely to dental hygienists.
- Preserve the quality of care by conducting rigorous studies that include the use of control groups, random chart audits and clinical examinations, within a blind review process.
- Protect patients from harm by requiring OHPs to submit their collaborative management agreements to the Board of Dentistry, requiring the Board to enforce statutes and rules regarding grounds for discipline similar to those applied to dentists, and by requiring long-term outcome evaluations of dental and medical complications resulting from care rendered by OHPs.
- Ensure that the same fundamental aspects of regulated practice that must be met by other licensed or registered dental professionals in Minnesota are met by the Oral Health Practitioner.

## MINNESOTA DENTAL ASSOCIATION

### ORAL HEALTH PRACTITIONER: RECOMMENDATIONS AND RATIONALE

**ISSUE 1: The work group shall recommend and propose legislation that states the necessary education and competencies, including clinical training, faculty expertise, and facilities.**

Recommendation:

- Ensure that Oral Health Practitioners receive the same high quality dental education as dental students by being integrated into a dental educational program.

Rationale:

Other countries that have decades of experience educating dental therapists, such as the United Kingdom, have realized the value of teaching dental therapy students alongside dental students in a university-based education program. Their experience is all the more valuable as their educational programs have moved in recent times *away* from shorter, separated programs *toward* an integrated dental team approach. An integrated dental team educational environment can best prepare both types of dental professionals to work effectively as a team once in practice. An integrated approach ensures the same high level of quality education for both types of students, thereby assuring patients that care rendered by an Oral Health Practitioner (OHP) is of the same high quality as that rendered by a dentist.

The expertise of the dental faculty who would teach OHP students comes not just from having earned a dental degree themselves, but from the knowledge and skills attained over a number of years of actually *teaching* others, and from teaching *with* others. Dental faculty must have a depth and breadth of knowledge and education that supports the application of their clinical skills. The dental faculty and students at the University of Minnesota School of Dentistry not only interact with general dentists, but also with dental and medical specialists, thereby broadening their own and their students' knowledge base.

Preclinical lab, computerized or other facilities are needed to adequately prepare individuals to perform clinical dental procedures before practicing on live human beings. The new simulation clinic at the University of Minnesota School of Dentistry is a state-of-the-art facility designed to move students at their own pace through the preclinical phase of attaining proper skills. In this way, they can begin safely treating patients as soon as they demonstrate the necessary skill level, perhaps sooner than with previous generations of preclinical teaching technologies.

An educational environment that supports a team approach to care is more likely to elevate the oral health status of the population being treated because of the enhanced feasibility of providing comprehensive care along with basic restorative care and prevention measures. In the case of the OHP who may treat underserved populations that typically have more complex dental and medical problems, there is a greater need for the OHP to be well integrated into a skilled resource system designed to provide comprehensive care. To do less would be a disservice to these patients.

**ISSUE 2: The work group shall recommend and propose legislation that states the appropriate program accreditation.**

Recommendation:

- Ensure that the Oral Health Practitioner program is taught in an educational institution that is accredited by the Commission on Dental Accreditation of the American Dental Association specifically to teach surgical dental procedures.

Rationale:

Minnesota has long prided itself on the fact that all dental and allied dental education programs in the state are accredited, thereby assuring that uniform, high level skill sets are taught by qualified educators and attained by students. The accrediting organization that has the expertise, experience, and the sole responsibility for ensuring that U.S. dental and allied dental education programs meet these recognized, uniform standards is the Commission on Dental Accreditation of the American Dental Association.

Surgical procedures, i.e. cutting hard tissue in preparation for dental restorations and extracting teeth, are irreversible procedures and are not included in the accreditation requirements set forth for any allied dental educational program (that is, dental hygiene or dental assisting). Thus, the only dental educational institution in Minnesota that has the appropriate accreditation to teach dental surgical procedures is the University of Minnesota School of Dentistry.

To further highlight the importance of the accreditation issue, the Minnesota Legislature and the Board of Dentistry have intentionally required that dentists, dental hygienists and registered dental assistants who wish to become licensed or registered to practice in Minnesota graduate from an educational institution accredited by the Commission of Dental Accreditation. To require the Board of Dentistry to provide program accreditation is unreasonable and inappropriate: Boards across the country depend on the expertise of an objective, third-party to provide that type of evaluation, thereby increasing the portability of the license they grant to qualified healthcare professionals.

Therefore, we recommend that all surgical procedures that fall within the scope of practice for a licensed Oral Health Practitioner be taught in a dental education program accredited by the Commission on Dental Accreditation to teach those procedures. In that way the public may be assured of receiving quality care from dental professionals whose education has met national standards. Similarly, this is beneficial to the graduates themselves in that they will have an increased likelihood that their educational credentials will be accepted by other jurisdictions, not just Minnesota. And, in today's mobile society, that is an aspect that must be given due consideration.

**ISSUE 3: The work group shall recommend and propose legislation that states the OHP scope of practice.**

- a) Preventive
- b) Primary diagnostic
- c) Educational
- d) Palliative
- e) Therapeutic
- f) Restorative
  1. Cavity preparation
  2. Restoration of primary and permanent teeth using appropriate dental materials.
  3. Temporary placement of crowns and restorations
  4. Placement of preformed crowns
  5. Pulpotomies on primary teeth
  6. Direct and indirect pulp capping in primary and permanent teeth
  7. Extractions of primary and permanent teeth
  8. Placing and removing sutures
  9. Providing reparative services to patients with defective prosthetic appliances.
- g) Determine services to be provided to children and adults.

Recommendations:

- Ensure that when an Oral Health Practitioner provides surgical dental procedures, the patient has first received an examination, diagnosis and treatment plan by a Minnesota-licensed dentist in active practice in Minnesota.
- Ensure that an Oral Health Practitioner be permitted to provide data collection (preliminary examination) solely for the purpose of assisting the dentist in examining, diagnosing and treatment planning.
- Ensure that when an Oral Health Practitioner provides surgical dental procedures, the OHP is under the indirect (on-site) supervision of a Minnesota-licensed dentist in active practice in Minnesota.
- Ensure that the Oral Health Practitioner scope of practice not include extractions of permanent teeth on either children or adults, but may include extractions of fully erupted primary teeth.
- Ensure that a collaborative management agreement for an Oral Health Practitioner is needed only to allow the OHP to provide basic preventive services in the absence of a dentist. (Because we recommend that when the OHP provides surgical procedures they be performed only under indirect supervision of a dentist (on-site), a collaborative management agreement is simply not required for such procedures.)

## I 2, p. 8

The Minnesota Legislature is seeking to create this new dental professional, the Oral Health Practitioner, to help address the needs of underserved populations in Minnesota. A primary dental problem of the underserved is that of unresolved dental caries, possibly with pulpal involvement if care has been delayed. We believe the OHP should be educated to perform limited restorative and surgical procedures traditionally performed by the dentist...not the more comprehensive periodontal procedures performed by the dental hygienist, such as scaling and root planing. Therefore, applicants for an OHP educational program need not be dental hygienists to be admitted.

The population to be served should include both child and adult patients in any dental setting in Minnesota, including private dental offices. Low income and uninsured patients are treated in virtually every type of dental clinic and office across Minnesota, so limiting the practice settings where this new dental professional may practice is neither necessary nor wise. Dentists in rural private practice settings may well be able to “share” the services of an OHP in order to utilize the OHP more cost-effectively. In an effort to address the needs of underserved patients as the Legislature intended, we recommend that the OHP be required to ensure that at least 50% of their patients are those who are defined as underserved, that is, those enrolled in public assistance programs or those with low- or no income who are uninsured. In other words, the setting is irrelevant as long as at least half of the patients treated by the OHP are underserved.

As described previously, in drawing upon the experiences of dental therapy educators elsewhere in the world, our recommendations include ongoing, direct contact between the OHP and the dentist. Those educators learned over time that the dental team relationship is a critical piece in improving oral health outcomes for patients. Minnesota’s proposed new dental health professional stands a much better chance of being successful if we can ensure that the team is educated together and practices together after licensure.

We have divided the scope of practice into three sections found below:

1. Procedures that can be performed under a collaborative management agreement (away from the dental office or clinic, without a dentist present or having examined the patient first);
2. Basic preventive procedures that can be performed under general supervision within the dental office or clinic;
3. Irreversible, surgical procedures that can be performed under indirect supervision within the dental office or clinic.

### Procedures Under Collaborative Management Agreement

We recommend that an Oral Health Practitioner under a collaborative management agreement be allowed to perform only basic preventive services without a dentist’s presence or prior examination in settings other than a dental office or clinic. We make no provisions for limited restorative or surgical care to be performed by the OHP under a collaborative management agreement.



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While similar to the existing collaborative agreement for use by dental hygienists, we propose some significant differences. Specifically, our proposed collaborative management agreement “closes the restorative treatment gap” that currently exists under the dental hygienists’ collaborative agreement. We propose that the collaborative management agreement for an OHP require that the collaborating dentist either provide follow-up restorative care to patients who receive basic preventive services from the OHP, or ensure that an appropriate referral is made to a dentist who has agreed to accept such referrals and is named in the written agreement. Moreover, we propose that the evaluation of OHP care provided under a collaborative management agreement include the extent to which complete dental care is provided by the collaborating dentist.

### Office/Clinic Procedures Under General Supervision:

We recommend that an OHP be permitted to perform the services listed below in the dental clinic or office under the general supervision of a dentist for patients of all ages. That is, the dentist need not examine the patient first or be present at the time these particular services are rendered by the OHP:

- Provide oral health instruction, including nutritional/dietary counseling;
- Take radiographs;
- Preliminary charting to assist the dentist in making a diagnosis and formulating a treatment plan;
- Removal of plaque and stains from teeth using mechanical polishing;
- Apply topical fluoride and fluoride varnish;
- Recement intact temporary restorations and place temporary fillings (not including temporization of inlays, onlays, crowns, and bridges) to provide palliative treatment;
- Fabrication of soft occlusion guards and athletic mouthguards;
- Apply pit and fissure sealants.

### Office/Clinic Procedures Under Indirect Supervision:

We recommend that the OHP be permitted to perform the services listed below only after the dentist has completed a comprehensive oral examination, made a diagnosis and formulated a treatment plan, and that these services be performed only under the indirect supervision of the dentist, for adults and child patients as shown below. That is, the dentist is present while the OHP performs these functions, but does not need to check the OHP’s work before the patient is dismissed (unless the dentist so wishes):

- Prepare primary and permanent teeth for Class I through V restorations on children and adults;
- Place, contour and adjust restorations in primary and secondary teeth in children and adults;
- Prepare teeth, adapt and cement preformed stainless steel crowns on primary teeth on children;
- Monitor a child or adult patient who has been induced by a dentist into nitrous oxide-oxygen inhalation analgesia;

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- Perform pulp vitality testing and record findings for dentist's interpretation;
- Place and remove rubber dam;
- Apply desensitizing medicament/resin;
- Placement of temporary crowns and restorations;
- Perform pulpotomies on primary teeth in children;
- Perform indirect pulp capping on primary and secondary teeth in children and adults;
- Perform extractions of children's erupted primary teeth, not to include soft tissue, partial bony or complete bony extractions of primary teeth. We recommend that the OHP not be permitted to perform extractions of any kind on permanent teeth in children or adults under any kind of supervision;
- Remove sutures and change dressings.

**ISSUE 4: The work group shall recommend and propose legislation that states the level of supervision required by a licensed dentist, including any limitations, restrictions, or supervision requirements.**

### Recommendations:

- [Same as those under Issue #3]

### Rationale:

To ensure patient well-being - and long-term career satisfaction for the OHP - we recommend that the OHP be allowed to perform limited surgical dental procedures only after the licensed dentist has examined the patient, made a diagnosis of treatment needs,

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and formulated a treatment plan. As described above, when a licensed OHP performs surgical dental procedures, the OHP shall only work under the indirect (on-site) supervision of a Minnesota-licensed dentist.

The rationale for this is that surgical procedures typically require on-going decision making throughout the process ("intra-operative diagnoses"). Therefore, in the event that a patient's care during the procedure is beyond the scope of OHP practice, a dentist will be immediately available to provide not only guidance and advice, but even direct patient care to complete the procedure, if needed. Integration of the OHP within a dental team where the dentist's assistance is readily accessible is essential in order to limit the complications and conflicts that could arise due to unreasonable and/or uninformed patient expectations, particularly those in pain.

Regarding the long-term success and career satisfaction of the OHP, dental therapists in other countries have "burned out" after being in practice for only a short amount of time as a result of being geographically isolated, not being integrated within a dental team, and being unable to meet patients' needs within their defined scope of practice. We have the opportunity to ensure long-term success of the OHP here in Minnesota because we do not have the geographic

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isolation to the extent seen in such areas as Saskatchewan, and we can integrate the OHP into the dental team throughout his or her education and clinical practice following licensure.

**ISSUE 5: The work group shall recommend and propose legislation that states the medications that may be prescribed, administered and dispensed by an OHP if authorized by the supervising dentist in a collaborative agreement.**

### Recommendation:

- Ensure that an Oral Health Practitioner not be permitted to prescribe any kind of medication. The OHP may only recommend over-the-counter medications to patients.

### Rationale:

Perhaps no other area is fraught with patient safety issues as that involving contemporary society's abuse and misuse of prescription medications. The responsibility for patient safety when prescribing should lie solely with the dentist.

Because we recommend that the Oral Health Practitioner be allowed to perform limited surgical procedures only under the indirect supervision of a dentist, a dentist will be onsite and can prescribe medications as needed for pain relief and/or antibiotics, both of which must be prescribed prudently and with caution. Similarly, because we recommend that the OHP under a collaborative management agreement be allowed to perform only basic preventive procedures – not the full complement of dental hygiene periodontal services – there will be no need for the OHP to prescribe medications of any kind.

**ISSUE 6: The work group shall recommend and propose legislation that states the extractions that may be performed if authorized by the supervising dentist in a collaborative agreement, including limitations and level of supervision required.**

### Recommendations:

- [Same as those under Issue #3]

### Rationale:

For reasons previously stated, and based on the lessons learned from other countries' long experience with various types of mid-level practitioners, we recommend that if the OHP is permitted to perform extractions, they be performed only under the indirect (on-site) supervision of the dentist. We oppose allowing the OHP to perform any type of extractions under a collaborative management agreement.

**ISSUE 7: The work group shall recommend and propose legislation that states the criteria for determining which practice settings an OHP should be authorized to practice in order to improve access to dental care for low-income, uninsured, and underserved population.**

Recommendation:

- To fulfill the legislature’s intent to address dental access by creating a new type of dental worker, the Oral Health Practitioner must not be limited by practice setting, but must ensure that at least 50% of their patients are from underserved populations.

Rationale:

As stated previously, we view the Oral Health Practitioner primarily as one who extends the clinical restorative procedures traditionally performed by the dentist...not one whose main function is prevention like that of the dental hygienist. Therefore, the population to be served includes both child and adult patients in any dental setting in Minnesota, including private dental offices. However, in an effort to address the needs of underserved patients, we recommend that the OHP be required to ensure that at least 50% of their patients are those who are defined as underserved, that is, those enrolled in public assistance programs and the uninsured with low or no income. Providing care to patients enrolled in public assistance programs would also ensure that there is a definable, specific population from whom outcome measures may be obtained.

**ISSUE 8: The work group shall recommend and propose legislation that states the assessment of the economic impact of OHPs to the provision of dental services and access to these services.**

Recommendation:

- Ensure that the economic impact of the Oral Health Practitioner is positive in a variety of practice settings, that the oral health of patients treated improves, and that the cost of care either remains the same or decreases.

Rationale:

In order for the Oral Health Practitioner to be successfully sustained and accepted as a dental professional over time, a positive economic impact in a variety of practice settings must be demonstrated. Not only should the cost of services rendered by the OHP either remain the same or be lower than the same services provided by a dentist, but more people who had previously not been able to access dental care should be able to do so once OHPs become part of the dental team.

We believe that the cornerstones needed to successfully address the needs of underserved populations that have the most long-lasting value are those that provide evidence-based, cost-effective measures to prevent disease, and those that establish a dental home for people, preferably early in life. The American Dental Association describes “dental home” as “*the ongoing relationship between the dentist who is the primary dental care provider and the patient, inclusive of all aspects of oral health care delivered in a comprehensive, continuously accessible, coordinated and family-centered way, including referrals to specialists when appropriate.*” These cornerstones hold the greatest potential for establishing oral health literacy,

maximizing the long-term, measurable benefits of disease prevention, and controlling costs over time. Measuring the effects of oral disease prevention measures can best occur over a long period of time.

**ISSUE 9: The work group shall recommend and propose legislation that establishes an evaluation process and includes clearly defined outcomes with a process for assessment. The work group shall review research on mid-level practitioners, and to the extent possible, base its recommendations on evidence-based strategies that are most likely to:**

- 1. Improve access to needed oral health services for low-income, uninsured, and underserved patients;**
- 2. Control the costs of education and dental services;**
- 3. Preserve quality of care; and**
- 4. Protect patients from harm**

Recommendations:

- Measure the extent to which dental access and long-term oral health improves for low- and no income uninsured and underserved patients by conducting evaluations within a defined population, i.e. patients enrolled in a public dental assistance program.
- Control the costs of Oral Health Practitioner education and dental services by not requiring a graduate degree for OHP licensure and by not limiting admission solely to dental hygienists.
- Preserve the quality of care by conducting rigorous studies that include the use of control groups, random chart audits and clinical examinations, within a blind review process.
- Protect patients from harm by requiring OHPs to submit their collaborative management agreements to the Board of Dentistry, requiring the Board to enforce statutes and rules regarding grounds for discipline similar to those applied to dentists, and by requiring long-term outcome evaluations of dental and medical complications resulting from care rendered by OHPs.

Rationale:

Outcome evaluations of the education and employment this new type of oral healthcare practitioner must not be limited to comparative assessments of technical quality of procedures performed by OHPs, dentists and dental hygienists, or to the reduction in untreated disease. Reducing a backlog of untreated disease, while important, is not the most desirable solution to the dental access problem. Rather, the primary objectives of OHP outcome studies should examine whether care rendered by the OHP is delivered in a safe and effective manner, whether oral diseases are prevented over a long period of time, and whether “dental homes” are established for more underserved patients. Sound evaluations using a well-defined research protocol should justify the establishment and sustainability of a totally new type of practitioner within our public and private dental delivery systems.

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Because Minnesota will be the first state to educate and employ an OHP, it is critically important that expert dental researchers familiar with the measurement of oral disease under field conditions be the ones to develop outcome variables. Studies need to be sufficiently lengthy and rigorous to provide public and professional confidence and acceptance of this new type of practitioner in our delivery system.

Controlling the costs of education can be accomplished by requiring that the OHP earn a baccalaureate degree, not a masters degree, and by not limiting the educational program to dental hygienists. Four years of undergraduate education in a dental school setting will be less costly than requiring six years of education and earning a graduate degree.

We have no expectation or reason to believe that the fees charged for services rendered by an Oral Health Practitioner will be lower than those charged for the same services rendered by a dentist—nor should they be lower if both are of the same high quality.

Our recommendation to educate the Oral Health Practitioner students alongside dental students is an effort to preserve one standard of care for the public. Both types of dental professionals will have the benefit of learning the most current evidence-based concepts and techniques, thereby reducing the possibility - or perception - of a two-tiered system of dental care.

Our recommendations to: (1) require the dentist to perform an exam, make diagnoses and formulate treatment plans prior to the patient receiving any surgical care from the OHP and (2) require that the OHP perform surgical procedures only under the indirect supervision of the dentist are the best ways to ensure that patients receive high quality care and that they are protected from inadvertent harm. These recommendations are based on the long experience other countries have had with the utilization of mid-level dental practitioners.

**ISSUE 10: The work group shall recommend and propose legislation that states the licensure and regulatory requirements, including license fees.**

### Recommendation:

- Ensure that the same fundamental aspects of regulated practice that must be met by other licensed or registered dental professionals in Minnesota are met by the Oral Health Practitioner.

### Rationale:

Licensure fees for the OHP will need to be determined by the Board of Dentistry. Regulation of this new practitioner should not result in higher fees for those already regulated by the Board. Regulatory requirements for the OHP should parallel those for other licensees and registrants regulated by this Board, including such things as application forms, CE credits earned biennially, grounds for disciplinary or corrective action, and so forth. It is only in that way that the Board of Dentistry can assure that the public receives care from qualified licensed practitioners.

# Minnesota Safety Net Coalition

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December 11, 2008

Joan Sheppard, D.D.S., Chair  
Oral Health Practitioner Work Group  
c/o Minnesota Department of Health

Mark Schoenbaum, Director  
Office of Rural Health and Primary Care  
Minnesota Department of Health

Re: Safety Net Coalition Comments for Oral Health Practitioner Work Group Final Report

Dear Dr. Sheppard and Mr. Schoenbaum:

I am writing on behalf of the Minnesota Safety Net Coalition, which includes Minnesota's health care safety net dental and health providers and programs who serve low-income, uninsured, disadvantaged and vulnerable patients. Lack of access to dental services has become one of the most serious problems facing disadvantaged Minnesotans, many of whom face long delays to receive badly needed dental services due to a severe shortage of dentists to practice in the safety net clinics and other settings where vulnerable patients need treatment. The patients most seriously affected include low-income children and adults, physically and developmentally disabled persons, the elderly who reside in nursing facilities or are home-bound, the homeless, persons with language or cultural barriers to accessing needed care, and persons with serious mental illness.

Minnesota's safety net dentists and dental clinics offer high-quality services and treatment and are doing everything possible to extend their capacity to reach as many patients as they can. However, they are simply unable to keep up with the need due to a shortage of dentists to fill available positions. They strongly support the creation of a mid-level practitioner to partially fill the void caused by the dentist shortage. Minnesota's safety net dentists and dental educators spent several years studying the programs of Alaska and other countries and developed a carefully designed education program and practice model that will make a real difference in the lives of disadvantaged Minnesotans. Their work was the foundation for last year's legislation. This foundation was further improved during the 2008 legislative process and through the work of the Work Group, where changes were made after carefully considering the concerns that were raised by those who opposed the original proposal. The Work Group has done everything possible to address each of these concerns.

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The Coalition appreciates the dedication, hard work and excellent service that have been demonstrated by the staff and leaders of the Minnesota Board of Dentistry and the Minnesota Department of Health and by Ms. Ellen Benavides throughout the Work Group's process. This is an extremely challenging and often contentious issue because of the strong emotion and controversy that surrounds it. Despite the challenges, the Work Group chair, staff and facilitator remained focused on the goal of developing a strong report and recommendations that fulfill the legislative mandate. You continuously sought ways to overcome the disagreements and achieve consensus.

The Work Group process gave members, stakeholders and the public many opportunities to express their views and offer their proposals to the Work Group. Even when a substantial majority of the members had reached agreement on compromise recommendations, which would have been minimally sufficient to complete the Work Group's work, you continued to seek pathways to resolve the remaining disputes and reach consensus. It is disappointing that members did not reach unanimous agreement, but that is not the fault of the chair, staff or facilitator.

The Work Group made excellent progress. We should not lose sight of this. All of the members of the Work Group, representing the major stakeholders, now agree to the following important premises for the new Oral Health Practitioner ("OHP") Program:

1. A mid-level dental practitioner is a good idea and will improve access to needed dental care for underserved and vulnerable populations. The major stakeholders do not oppose moving forward with establishing a mid-level practitioner.
2. The OHP can be educated and trained to perform certain procedures such as fillings and extractions that formerly could be performed only by dentists. There is agreement that a properly trained mid-level practitioner can provide high quality, safe services and will improve access to dental services.
3. The two educational institutions – the University of Minnesota and the Minnesota State Colleges and Universities – agree that both institutions should be able to develop their respective educational models, each of which take different avenues to preparing OHPs to practice and will train OHPs suited for different types of settings.

One major issue on which there was not unanimous agreement was whether the practitioner should be allowed to perform certain procedures in community settings where access is a problem but no dentist is available to be on site. The Coalition believes that OHPs should be able to practice in safety net community settings such as schools, community health care clinics, nursing facilities, remote regions of the state and similar settings where there is a shortage of dentists to serve vulnerable patients in the place where the care is needed. The extensive research on programs in Alaska and many other countries clearly demonstrates that services can be safely provided by an appropriately trained mid-level practitioner in these community settings



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without a dentist on site. The Work Group reviewed the research and the evidence-basis for this Work Group recommendation is documented in the Work Group proceedings.

The Coalition endorses and supports the report and recommendations of the Work Group. We understand that compromises must be made, but we believe it is important for policymakers to understand that the Work Group's recommendations are for a program that is more limited, restrictive and expensive than is necessary based on the research evidence and experience of Alaska and other countries. We are not going as far as we could to address Minnesota's serious access problem.

The Coalition recommended to the Work Group that it consider simply replicating the existing Alaskan mid-level practitioner program. The Alaska program is a "turn-key" program, so replicating it would eliminate many of the uncertainties and regulatory complexities that the Work Group encountered as it attempted to define all the details for a new program for Minnesota. The Alaska program is modeled after the successful programs that have existed in many countries for many years. This model has been extensively researched and has been shown to improve access and provide high quality care to vulnerable populations at an affordable cost. The research demonstrates that mid-level practitioners can be trained to a wide scope of practice, can safely practice in community settings without a dentist on site, and can be trained with less education than the models that have been discussed in the OHP Work Group.

In the Coalition's view, the Alaska program may be the best model to address the dental access issues in the State. However, because of the objections and concerns raised by some Work Group members, the Coalition is willing to support a more limited and restrictive – and more expensive – program in order to reduce opposition and make progress toward addressing this serious problem.

The Coalition appreciates the opportunity to present these recommendations. We request that the following materials that were presented to the Work Group by the Coalition be included in its report:

1. Research Literature Review on Mid-level Oral Health Practitioners: this highlights some key findings of the research that provides the evidence-basis for the Work Group's recommendations.
2. Examples of Settings Where Lack of Access to Dentists is a Serious Problem: this document describes the safety net settings where vulnerable patients do not have access to needed dental services due to a shortage of dentists to practice in these settings.
3. History, Training and Scope of Practice of Dental Therapists in Seven Selected Countries: this compares the existing programs of other countries and Alaska. The Work Group recommendations are for a program that is more limited and restrictive than these existing programs.

**I 3, p. 4**

4. Minnesota Safety Net Coalition Oral Health Practitioner Proposal: this is the document submitted to the Work Group by the Coalition that proposes a modified Alaska program and provides the rationale for it.

Again, thank you for your excellent leadership and staff support.

Sincerely yours,

Michael Scandrett, Staff Director  
Minnesota Safety Net Coalition

cc: Ellen Benavides, Work Group Facilitator

## **Minnesota Safety Net Coalition Highlight of the Research Literature Review On Mid-level Oral Health Practitioners**

Mid-level practitioners have been well studied and researched in many other countries that have long-standing mid-level practitioner programs and in the United States in pilot programs conducted in the 70's and more recent research in Alaska. Research studies have consistently shown that mid-level oral health practitioners improve access, reduce costs, provide excellent quality of care, and do not put patients at risk. The following is a review of the major research studies on mid-level oral health practitioners.

### **Evaluations of clinical competency**

Abramowitz J, Berg LE. "A four-year study of the utilization of dental assistants with expanded functions." *Journal of the American Dental Association*. 1973; 87:623-635.

- A four-year study of the effectiveness of expanded duty dental assistants (dental auxiliaries) found that the participating dental auxiliaries were able to provide delegated procedures of acceptable quality, including Class II amalgam and Class III silicate restorations and no significant differences were found for the "acceptable" rating between dentists and auxiliaries for both procedures.

Abrose ER, Hord AB, Simpson WJ. *A Quality Evaluation of Specific Dental Services Provided by the Saskatchewan Dental Plan*. (Regina, Canada: Province of Saskatchewan Department of Health, 1976).

- A treatment quality evaluation of the Saskatchewan Dental Plan, which includes a dental nurse-training program modeled after the New Zealand program, focused on the procedures of amalgam restorations, stainless steel crowns, and diagnostic radiographs. Comparing the quality of amalgam restorations performed by dentists to those of dental nurses, just over 20 percent of restorations performed by dentists tended towards a rating of unsatisfactory and 15 percent towards a rating of superior whereas dental nurses were rated at just 3 to 6 percent unsatisfactory and 45 to 50 percent approaching superior standards. In regards to stainless steel crowns, the dentists and dental nurses appeared to function at the same standard of quality

Bolin KA. Assessment of treatment provided by dental health aide therapists in Alaska: a pilot study." *Journal of the American Dental Association*. 2008; 139:1530-1535.

- Charts of patients treated by Dental Health Aide Therapists (DHATs) and dentists in three Alaskan health corporations were audited to assess quality of care and the incidence of adverse events during or following treatment. Reviews of dental operative and surgical procedures performed by dentists, DHATs under direct supervision, and DHATs working with general supervision were conducted in July and August 2006. Out of 640 comparable operative and surgical dental procedures, 171 were performed by dentists, 218 by DHATs under direct supervision, and 251 by DHATs under general supervision. In charts audited from five dental clinics in three different Alaskan health corporations employing DHATs, dental treatment was found to be within the scope of training, was delivered in a safe manner, and met the standard of care of the dental profession. For comparable operative and surgical dental procedures, there was no statistical difference in the amount of complications resulting from treatment delivered by dentists vs. DHATs.

### I 3, p. 6

- In addition, no significant evidence was found to indicate that irreversible dental treatment provided by DHATs differed from similar treatment provided by dentists.

Brearley LJ, Rosenblum FN. "Two-year evaluation of auxiliaries trained in expanded duties." *Journal of the American Dental Association*. 1972; 84:600-610.

- A two-year evaluation of the performance of expanded duty dental assistants compared to those of senior dental students indicated that the expanded duty dental assistants' quality of procedures performed was consistently as good as the performance shown by the senior dental students. Furthermore, in certain procedures, the expanded duty dental assistants tended to be significantly superior to dental students in the performance of prophylaxes, matrix removal, and placement of Class I amalgam restorations.

Hammons PE, Jamison HC, Wilson LL. "Quality of service provided by dental therapists in an experimental program at the University of Alabama." *Journal of the American Dental Association*. 1971; 82:1060-1066

- A comparison study between dentists in private practice and dental therapists at the University of Alabama School of Dentistry found that the quality of service was equally competent for six clinical procedures, including inserting amalgam restorations, inserting silicate cement restorations, finishing amalgam fillings, finishing silicate fillings, inserting temporary fillings, and placing matrix bands for amalgam fillings. More specifically, for the both of the unfinished and finished restoration procedures, none of the differences in proportions of excellent ratings was statistically significant. In certain cases, the minor differences tended to favor the dental therapists for seven of the 12 aspects evaluated for unfinished restoration procedures. When evaluating temporary procedures that include fillings, the differences in ratings of excellence between the dentists and dental therapists were statistically significant, favoring the therapists.

Lobene R, Kerr A. *The Forsyth Experiment: An Alternative System for Dental Care* (Cambridge, MA: Harvard University Press, 1979).

- Based on blind evaluations, the advanced skills hygienists were found to perform restorative dentistry equal in quality to that done by practicing dentists. For example, the group mean score for all cavity preparations was 10.2 quality points for the hygienists versus 10.0 quality points for the dentists. Comparing multisurface cavity preparations, those completed by the hygienists had a higher mean quality score that was statistically significant at the 5 percent confidence level. The hygienists also achieved a slightly superior group mean score for single-surface restorations was 10.7 quality points versus 10.5 quality points for the dentist-performed fillings (p. 82).

Lotzkar S, Johnson DW, Thompson, MB. "Experimental program in expanded functions for dental assistants: Phase 3 experiment with dental teams." *Journal of the American Dental Association*. 1971; 82:1067-1081.

- In phase three of a three-phase study on the feasibility of delegating additional duties to chair side dental auxiliaries, dentists, who worked as heads of dental teams with varying numbers of assistants, delegated about two fifths of their work to these auxiliaries. The overall rating of the work performed by the assistants during this phase found that 82% of the procedures were assessed as meeting the required quality standards, compared to 81% of the dentists' work that was assessed as acceptable.

### I 3, p. 7

Nash DA, Friedman JW, Kardos TB, Kardos RL, Schwarz E, Satur J, Berg DG, Nasruddin J, Davenport EG, Nagel RJ. "Dental therapists: a global perspective." *International Dental Journal*. 2008; 58:61-70.

- Since their introduction in New Zealand, dental nurses/therapists have improved access to oral health care in increasing numbers of countries. Multiple studies have documented that dental therapists provide quality care comparable to that of a dentist, within the confines of their scope of practice. Acceptance and satisfaction with the care provided by dental therapists is evidenced by widespread public participation. Through providing basic, primary care, a dental therapist permits the dentist to devote more time to complex therapy that only a dentist is trained and qualified to provide.

Trueblood G. *A Quality Evaluation of Specific Dental Services Provided by Canadian Dental Therapists* (Ottawa, Ontario, Canada: Epidemiology and Community Health Specialties, Health and Welfare Canada, 1992).

- A study to observe the quality of care provided by dental therapists compared with the level and quality of care provided by dental practitioners statistically concluded that on the basis of six clinical restorative procedures, the quality of restorations placed by the dental therapists was equal and more often better than that of those placed by dentists.
- In addition, the data show a steadily increasing trend that is the result of a steady decrease in the number of required extractions over time relative to restorations, which suggests that dental therapists are being successful in treating dental emergencies and in reducing them through regular on-going care. The steadily increasing trend is the first important line of evidence of the overall effectiveness of the dental therapists in improving dental health in the communities in which they work.

#### **Assessments of how well they care for particular populations**

Mertz E, Anderson G, Grumbach K, O'Neil E. "Evaluation Strategies to Recruit Oral Health Care Providers to Underserved Areas of California." (San Francisco, CA: Center for California Health Workforce Studies, 2004).

- The Registered Dental Hygienist in Alternative Practice category was first created in the 1980s as a California Health Manpower Pilot Project to allow hygienists to practice in alternative settings. Each cohort of 17 RDHAP graduates from the West Los Angeles program is estimated to add 34,000 patient visits per year for the underserved.

Miller CE. "Access to care for people with special needs: Role of alternative providers and practice settings." *Journal of the California Dental Association*. 2005; 33, no.9:715-721.

- Dental hygienists, with focus on community health and preventive care, are suggested as being the oral health professionals most prepared to address issues of access.

Nash DA, Friedman JW, Kardos TB, Kardos RL, Schwarz E, Satur J, Berg DG, Nasruddin J, Davenport EG, Nagel RJ. "Dental therapists: a global perspective." *International Dental Journal*. 2008; 58:61-70.

- New Zealand's School Dental Service, which is staffed by school dental therapists under the general (indirect) supervision of district public health dentists, currently have over 97% of children under the age of 13 and 56% of preschoolers participating, with virtual elimination of permanent tooth loss.

### I 3, p. 8

- In Malaysia, practicing dental nurses now number around 2,090 and have operated in schools since 1985. The program has been very successful, with 96% of elementary and 67% of secondary school children participating and resulting in a sharp decline of decayed teeth and a corresponding increase in restored teeth.

Nash DA, Nagel RJ. "Confronting oral health disparities among American Indian/Alaska Native children: The pediatric oral health therapist." *American Journal of Public Health*. 2005; 95, no.8: 1325-1329.

- The use of dental therapists in Canada on First Nation reserves has indicated that the ratio of extractions to restorations has dropped significantly, from over 50 extractions per 100 restorations in 1974 to fewer than 10 extractions per 100 restorations in 1986.

### Attitude of dentists

Brearley LJ, Rosenblum FN. Two-year evaluation of auxiliaries trained in expanded duties. *Journal of the American Dental Association*. 1972; 84:600-610.

- Dental students (91.3%) were favorably oriented towards expanding duties of dental assistants to help alleviate the dental work force shortage. Most of the dental students favored the delegation of certain procedures to suitably trained assistants, including manipulation of rubber dam, matrixes, and wedges. There was also a significant attitudinal change by the end of the study to being in favor of the condensation of amalgam and adaptation and cementation of stainless steel crowns by suitably trained assistants.

Fiset, L. *A Report on Quality Assessment of Primary Care Provided by Dental Therapists to Alaska Natives* (Seattle, WA: University of Washington School of Dentistry, 2005).

- The author completed a four-day site visit to the Yukon-Kuskokwim Corporation dental clinic in Bethel, Alaska and to two remote village dental clinics in Buckland and Shungnak, which are administered by the Maniilaq Corporation dental clinic in Kotzebue. At the Bethel site, he found that each dentist he spoke with was eager to discuss the dental therapists, all positive in their comments. One dentist admitted that the dental therapists' clinical training in pediatric dentistry surpassed her own. Among the dentists practicing at the facility, all expressed no reservation about the dental therapists being sent to sub-regional clinics to provide primary care in the absence of direct supervision by their preceptors.
- Each dental therapist was equipped not only to provide essential preventive services but simple treatments involving irreversible dental procedures such as fillings and extractions. Their patient management skills surpassed the standard of care. They knew the limits of their scope of practice and at no time demonstrated any willingness to exceed them.

**Cost-effectiveness and productivity**

Abramowitz J, Berg LE. "A four-year study of the utilization of dental assistants with expanded functions." *Journal of the American Dental Association*. 1973; 87:623-635.

- A four-year study to determine the feasibility of dental practices using expanded function dental assistants in relation to quality and economic considerations demonstrated that the efficient utilization of these types of auxiliaries resulted in decreased fees, increased net income for the dentists, or a combination of both. More specifically, as more auxiliaries were added to the dental team, the relative costs per unit of time worked decreased from \$2.54 to \$2.26 and the net income for the dentist increased over \$10,000, from \$28,030 to \$39,147.

Lobene R, Kerr A. *The Forsyth Experiment: An Alternative System for Dental Care* (Cambridge, MA: Harvard University Press, 1979).

- Results from the Forsyth Experiment indicated that a solo practice dentist using hygienist-assistant teams to provide restorative care could charge lower fees and increase his net income. All patients in the study actually received free treatment, so therefore the income that could have been generated was calculated using the dollar charges for specific dental procedures listed in the 1974 Massachusetts welfare fee schedule and the 1972 schedule of usual fees for New England dentists.

Lotzkar S, Johnson DW, Thompson MB. "Experimental program in expanded functions for dental assistants: Phase 3 experiment with dental teams." *Journal of the American Dental Association*. 1971; 82:1067-1081.

- With dentists heading dental teams with four assistants performing expanded functions, dentists were able to increase their productivity over their base-line performance by 110% to 133%.

**Minnesota Safety Net Coalition  
Actual Examples of Settings Where Lack of Access to Dentists  
is a Serious Problem**

1. **Nursing home:** No dentists willing to treat residents at facility. Medically compromised and cognitively impaired residents difficult to transport and treat in dental offices. According to nursing home providers, space and equipment are not the main problem -- it is the lack of dentists.
2. **Indian reservation:** Serious shortage of dentists to practice in the IHS clinics -- long waits for appointments.
3. **Head start:** Low-income, uninsured families with children are not receiving dental care. Families cannot find a dentist who will treat them for free or at a reduced cost. Dental services could be provided on site but not enough dentists can be found who are willing to do so.
4. **Homeless shelter:** Families and individuals have no money or transportation and are at the shelter for a short time. Many have dental problems that need attention. The shelter attempts to provide dental care on site as needed, but cannot find enough dentists to treat patients at the shelter.
5. **Nonprofit dental clinic:** Clinic serves low-income and uninsured patients and families. Has a long waiting list for dental appointments. Operatories and equipment are available, but the clinic cannot hire enough dentists willing to work there, even at a competitive salary.
6. **Rural community health center:** Unable to recruit additional dentists and has a long waiting list for appointments. The center has unused clinic capacity. Patients are told to travel to the Twin Cities to see a dentist at a community clinic there.
7. **Hospital emergency room:** ER sees many patients with tooth pain who need treatment but cannot do much more than prescribe pain medications and refer the patient to a dental clinic. Many low-income and uninsured patients are unable to find a dentist who will treat them and therefore, return to the ER to renew their pain medications.

**In order to address these serious access problems, the OHP must:**

- (1) Be willing to practice in these types of settings and treat the patient populations for whom access is a serious problem; and
- (2) Be able to do a cleaning, exam, diagnosis, and treatment of basic dental problems in a single visit without a dentist on-site.



	New Zealand	Australia	Canada	Malaysia	Tanzania	Great Britain	United States - Alaska
Population	4,028,000	20,155,000	32,268,000	26,127,700	38,200,000	59,800,000	303,824,650
Brief History	Pioneered training 29 School Dental Nurses (now called Dental Therapists) in 1920. By 1970 there were 3 DT schools and over 1300 DTs in School Dental Service for pre- and primary school children, with 95% utilization. Training transferred to dental school in 1999 and was combined in 2007 with dental hygiene in a 3 year program. Now only 660 DTs are registered, almost all in public school clinics for children and adolescents up to age 19. DT's can treat adults with additional training as part of teams in conjunction with dentists. Dental Therapists can practice independently with consultative supervision of a dentist, but very few do. A shortage in the number of Dental Therapists is predicted by the Ministry of Health.	Initiated in 1996 by employment of New Zealand trained DTs in 1966-7. In the states of Tasmania and South Australia established training DTs. There are now 7 university schools training DTs. By 1979, 280 DTs graduated annually, currently approximately 200 graduates each year. Although most states permit DTs to work in private dental practices and to treat adults, with prescriptive authority required in two states, the large majority (87%) work in the School Dental Service that provides most of children's dental care. A combined dental therapy/dental hygiene degree in Oral Health Therapy is now offered.	Initiated in 1972, two-thirds of DTs (202) are located in the province of Saskatchewan, with 100 DTs spread across other parts of Canada. Dental Therapists work in government programs, prevention programs in public health, community clinics, training institutions, First Nations organizations and private dental clinics as clinicians, health educators and administrators. Since elimination of the school-based program in 1987, more than half of the DTs in Saskatchewan practice alongside dentists in private practice. Primary orthodontic services may be added to their scope of practice with additional training.	Still called Dental Nurses, the program was started in 1949. Malaysia has trained over 2000 DTs, including students from 19 other countries. All Dental Nurses in Malaysia are females and assigned to the Preschool, Primary and Secondary School Dental Service, providing comprehensive treatment to 90% of children up to age 17. They are not permitted to work in private practice. Most Dental Nurses stay in government service until compulsory retirement at age 55.	In 1955, specially trained dental assistants performed functions similar to current Dental Therapists. The first Dental Therapist training school was established in 1981, a second in 1983, each with 12 students. Although trained to provide more comprehensive treatment, Dental Therapists in Tanzania provide mostly emergency extractions for all ages, due to the extreme shortage of dentists. Other functions include oral health education and ART. Atypically, the ratio of male to female Dental Therapists is 2:1.	Training of Dental Therapists began in 1960 and has since expanded to 15 programs attached to Dental Teaching Hospitals. Dental Care Professionals (DCP) is a recent designation for dental auxiliaries including Dental Therapists, dental hygienists, orthodontic therapists and clinical prosthetists. Most of the training programs now offer a Dental Therapist diploma or a combined dental therapist/dental hygienist B.Sc. in Oral Health Sciences. Dental Therapists are employed in all sectors of dentistry.	Initiated in 2000. First cohorts were trained in New Zealand at Otago University and returned to practice in Alaska. Providers are called Dental Health Aide Therapists (DHAT). First cohorts began practicing in Jan 2004. In addition to formal training DHATs must complete a 400 hr preceptorship. DHAT are certified by a Federal board. Current training is being conducted in Alaska through a partnership between the Alaska Native Tribal Health Consortium and the University of Washington. The program is called DENTEX, and will have its first graduates in December 2008. DHATs practice in rural Alaska and serve Federally recognized Alaska Native beneficiaries.
DTs/Population /Eligibles (Est.)	660 DTs – 1:61,861 1:1288 Eligibles to Age 18	1,236 DTs = 1:16,307 1:4707 Eligibles to Age 18	300 DTs = 1:110,887 1:1000 Eligibles(Saskatch.Age 19)	2090 DTs = 1:12,501 1:4784 Eligibles to Age 17	150 DTs = 1:254,667	691 DTs = 1:86,541	10 DHATs = 1:13,500 135,000 eligible beneficiaries
Dentists/population	1836 Dentists = 1:2194	8,991 Dentists = 1:2242	16,899 Dentists = 1:1909	2,550 Dentists = 1:10,246	110 Dentists = 1:347,273	32,682 Dentists = 1:1830	508 Dentists = 1:1319
DT Training Programs	In Years: 2-diploma, 3-degree No. Graduated/yr: 45 <input checked="" type="checkbox"/> In Dental School <input checked="" type="checkbox"/> In Dental Therapist School <input checked="" type="checkbox"/> In University Setting	In Years: 3-degree No. Graduated/yr: 200 <input checked="" type="checkbox"/> In Dental School <input checked="" type="checkbox"/> In Dental Therapist School <input checked="" type="checkbox"/> In University Setting	In Years: 2-diploma No. Graduated/yr: 15-20 <input type="checkbox"/> In Dental School <input checked="" type="checkbox"/> In Dental Therapist School <input type="checkbox"/> In University Setting	In Years: 3-diploma No. Graduated/yr: 160 <input type="checkbox"/> In Dental School <input checked="" type="checkbox"/> In Dental Therapist School <input type="checkbox"/> In University Setting	In Years: 3-diploma No. Graduated/yr: 24 <input type="checkbox"/> In Dental School <input checked="" type="checkbox"/> In Dental Therapist School <input type="checkbox"/> In University Setting	In Years: 2¼-diploma, 3-degree No. Graduated/yr: 215 <input checked="" type="checkbox"/> In Dental School <input checked="" type="checkbox"/> In Dental Therapist School <input type="checkbox"/> In University Setting	In Years: 2-diploma No. Graduated/yr: 4-6 <input type="checkbox"/> In Dental School <input checked="" type="checkbox"/> In Dental Therapist School <input type="checkbox"/> In University Setting
DT Scope of Practice	<input checked="" type="checkbox"/> Exams <input checked="" type="checkbox"/> X-rays <input checked="" type="checkbox"/> Diagnosis <input checked="" type="checkbox"/> Prophylaxis <input checked="" type="checkbox"/> Coronal Scaling <input type="checkbox"/> Root Planing <input checked="" type="checkbox"/> Topical Fluoride <input checked="" type="checkbox"/> Sealants <input checked="" type="checkbox"/> Infiltration Anesthesia <input checked="" type="checkbox"/> Nerve Block Anesthesia <input checked="" type="checkbox"/> Amalgam filling <input checked="" type="checkbox"/> Composite filling <input type="checkbox"/> ART <input checked="" type="checkbox"/> Preformed SS Crown <input checked="" type="checkbox"/> Pulp therapy (deciduous) <input type="checkbox"/> Extraction (deciduous) <input type="checkbox"/> Extraction (permanent) <input type="checkbox"/> Orthodontics <input checked="" type="checkbox"/> Children <input checked="" type="checkbox"/> Adolescents <input 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**Minnesota Safety Net Coalition  
Oral Health Practitioner Proposal  
11-11-08**

**Review of Key Legislative Mandates:**

1. OHP practice is limited to safety net settings and health professional shortage areas
2. OHPs will have a broad scope of practice as enumerated in the legislation with appropriate training and supervision requirements to preserve quality and protect patients
3. Legislative goals:
  - a. Improve access for low-income, uninsured and underserved patients
  - b. Control costs of education and dental services
  - c. Preserve quality of care
  - d. Protect patients from harm.
4. The work group should review programs in other countries and Alaska and base its recommendations on evidence-based strategies

**Review of Additional Key OHP Work Group Principles**

1. Emphasize Minnesota's health reform principles:
2. Allow people to practice at the top of their profession
3. Include measurable outcomes over time
4. Model must be economically viable and sustainable
5. Decrease the number of underserved

**OHP Work Group Discussion Issues:**

1. Model must be economically viable
2. Unique rural considerations must be addressed
3. The cost of educational programs must be controlled
4. The cost of hiring OHPs must be kept low
5. The licensing system should be administratively feasible

**The Types of Settings where Access is a Serious Problem:** *(also see the attached list)*

1. Clinics where a dentist is present but capacity is limited by costs and shortage of dentists
2. Community settings and rural areas where no dentist is available

**Safety Net Coalition Proposal for Discussion:**

1. **Replicate the Alaskan Dental Health Aide Therapist (DHAT) program in Minnesota:**
  - a. **Two-year, post-high school** training program
  - b. **Children and adults** can both be served
  - c. **Broad scope of practice** includes irreversible procedures including extractions of primary and secondary teeth
  - d. **General supervision**  
*(See the attached comparison of programs for more details on the DHAT model)*
2. **Require a six-month residency prior to practicing under general supervision**
3. **Strengthen the collaborative agreement** with supervising dentist to specify the dentist referral arrangements, provide for on-call access to a dentist, establish written practice protocols and require a systematic quality assurance program
4. **Use safety net settings preliminarily identified by the OHP Work Group**
5. **Evaluate the program** including comparing OHP quality of care to that of new dental school graduates and evaluating impact on access and cost.

**Advantages of the Modified Alaska DHAT Model:**

- Alaska DHAT model is an established U.S. program
- The model is built on the evidence-based strategies of other countries (*see attached comparison of programs*)
- The effectiveness of the model is validated by research on access and quality of care (*see attached article and literature review of research studies and program models of midlevel dental practitioners in the U.S. and other countries*)
- Proven to improve access in safety net settings and isolated communities:
  1. Increases capacity and reduces costs in safety net clinics and rural communities where a dentist is present but capacity is limited by costs and shortage of dentists
  2. Provides access to needed services in community settings and rural communities where no dentist is available and patients need a broad array of services
- Culturally diverse populations will be better served because the training program will be accessible and affordable to people from diverse communities
- The education program is inexpensive. It is a two-year, post-high school program
- Salary costs will be lower and the economic model more viable than under other models currently under discussion
- Frees dentists to practice at the top of their license
- Implementation details have been resolved, in terms of the needed statutory language, licensing standards, scope of practice, supervision, educational requirements and other details
- The licensing system is simple and efficient, compared to multiple programs and levels of licensure

**Attachments:**

1. Examples of Settings where Lack of Access to Dentists is a Serious Problem
2. Research Literature Review on Mid-Level Oral Health Practitioners
3. History, Training and Scope of Practice of Dental Therapists in Seven Selected Countries
4. Journal of the American Dental Association: Assessment of Treatment Provided by Dental Health Aid Therapists in Alaska (November 2008)

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