Report to the General Assembly

An Act Concerning the Department of Public Health's Oversight Responsibilities relating to Scope of Practice Determinations:

Scope of Practice Review Committee Report on Advanced Dental Hygiene Practitioners

Jewel Mullen, MD, MPH, MPA, Commissioner

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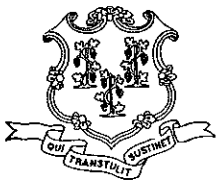

State of Connecticut
Department of Public Health
410 Capitol Avenue
P.O. Box 340308
Hartford, CT 06134-0308

State of Connecticut

Department of Public Health

Report to the General Assembly

An Act Concerning the Department of Public Health's Oversight Responsibilities relating to Scope of Practice Determinations for Health Care Professions: Advanced Dental Hygiene Practitioner

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Executive Summary

In accordance with Public Act 11-209, the Connecticut Dental Hygienists' Association (CDHA) submitted a scope of practice request to the Department of Public Health to establish an Advanced Dental Hygiene Practitioner (ADHP), a mid-level oral health provider who will provide an expanded scope of oral health services to underserved individuals in public health settings. The Department also received two additional scope of practice requests related to dental care and services: a request from the Connecticut State Dental Association (CSDA) related the addition of Interim Therapeutic Restorations (ITR) to the dental hygiene scope of practice and a request from the Connecticut Dental Assistants Association (CDAA) related to expanded function dental auxiliaries. The Department made a decision to combine the scope of practice review committees due to the complexity of the issues and because the impacted parties are the same for all of the requests. The decision to combine the committees was supported by scope of practice review committee members. A separate report, however, is being submitted for each of the scope of practice requests as the issues are very distinct.

Untreated dental disease affects an individual's ability to learn, work and function in daily life and results in substantially higher costs to the health care system. A lack of preventive services and patient education, as well as delays in receiving care, can also result in more costly treatment. In Alaska and in other countries, mid-level providers have been shown to improve access for underserved populations and provide safe, high quality care. Many states have also attempted to address these issues by allowing dental hygienists to engage in expanded functions while several states are still considering the creation of a mid-level provider, including the advanced dental hygiene practitioner and the dental therapist. The major differences between the two models include education and training requirements, level of dental supervision and requirements for a collaborative management agreement, and setting where services are provided. The ADHP model proposed by the CDHA as endorsed by the American Dental Hygienists' Association (ADHA) builds upon the education, training and experience of licensed dental hygienists who have been practicing for a minimum of two years and would require additional graduate level education and training and practice under a collaborative agreement with a licensed dentist. The dental therapist model creates a mid-level provider who does not necessarily have a dental background, has no clinical experience and would practice under the supervision of a dentist pursuant to a collaborative management agreement. Although the scope of practice committee reviewed each of these models, the committee focused its evaluation on the CDHA's request to establish an ADHP.

In reviewing all of the information provided, the scope of practice review committee did not identify any specific public health and safety risks associated with allowing appropriately educated and trained dental hygienists to engage in expanded functions. Committee members support the CSDA's proposal to increase the scope of dental hygiene practice to include interim therapeutic restorations (ITR) with hand instruments in public health and institutional settings and establishing a pathway for licensed dental hygienists to become Expanded Functions Dental Auxiliaries (EFDAs) as outlined in the Connecticut Dental Assistants Association's (CDAA's) separate scope of practice requests. The ITR and

EFDA proposals would expand the current scope of practice for dental hygienists but neither of these proposals would establish a new mid-level provider. Although the CDHA has been clear that they are not looking for independent practice, the proposed scope of practice and collaborative practice agreements that would allow ADHPs to perform irreversible procedures with minimal to no supervision by a licensed dentist raises significant concerns for opponents of the ADHP model. The ADHP model has also been compared to the Advanced Practice Registered Nurse (APRN), however there is still no national certification program for ADHP including competency examinations akin to those established for the APRN. The absence of a nationally accredited education and training program raises additional concerns for opponents. There is no national dental therapy examination but the Central Regional Dental Testing Service (CRDTS) has developed a dental therapy examination for Minnesota. There is currently only one advanced level education program in the nation to prepare mid-level oral health providers that is comparable to the proposed education included within the CDHA's ADHP proposal. The Minnesota program graduated its first class of seven students less than a year ago and it is too soon to draw any conclusions about impact on access, utilization or cost as no actual practice data is available yet. Other than Minnesota and Alaska, mid-level oral health practitioners are not authorized to practice in any other states. Connecticut's colleges and universities are reluctant to establish a costly master's degree program without the ADHP being a recognized, licensed profession.

Although it seems conceivable that the creation and utilization of a mid-level oral health provider such as an ADHP has the potential to enhance access to quality and affordable health care in Connecticut primarily through increased utilization, there was no documented current practice data provided to support this theory. Data provided by the Department of Social Services (DSS) suggests that access is no longer an issue for the Connecticut Medicaid population; utilization is the problem. More specifically, utilization for restorative care is particularly problematic. DSS also indicated that reimbursement for services provided by a new provider type such as the ADHP would be available however Federal reimbursement laws direct that a State cannot create a new provider type to provide services solely for the Medicaid population; the new provider type would have to be authorized to provide services to individuals who have commercial insurance as well as the uninsured, in addition to the Medicaid population. Creation of a mid-level ADHP would expand the dental hygiene profession's ability to practice to the full extent of the profession's current education and training.

The committee was not presented with draft statutory revisions for review. Should the Public Health Committee decide to raise a bill related to the CDHA's scope of practice request, the Department of Public Health along with the pertinent organizations that were represented on the scope of practice review committee to review this request (CDHA and CSDA) respectfully request the opportunity to work with the Public Health Committee on such a proposal.

Background

Public Act 11-209, An Act Concerning the Department of Public Health's Oversight Responsibilities Relating to Scope of Practice Determinations for Health Care Professions, established a process for the submission and review of requests from health care professions seeking to revise or establish a scope of practice prior to consideration by the General Assembly. Under the provisions of this act, persons or entities acting on behalf of a health care profession that may be directly impacted by a scope of practice request may submit a written impact statement to the Department of Public Health. The Commissioner of Public Health shall, within available appropriations, establish and appoint members to a scope of practice review committee for each timely scope of practice request received by the Department. Committees shall consist of the following members:

1. Two members recommended by the requestor to represent the health care profession making the scope of practice request;

2. Two members recommended by each person or entity that has submitted a written impact statement, to represent the health care profession(s) directly impacted by the scope of practice request; and

3. The Commissioner of Public Health or the commissioner's designee, who shall serve as an ex-officio, non-voting member and chairperson of the committee.

The Commissioner of Public Health was also authorized to expand the membership of the committee to include other representatives from other related fields if it was deemed beneficial to a resolution of the issues presented.

Scope of practice review committees shall review and evaluate the scope of practice request, subsequent written responses to the request and any other information the committee deems relevant to the scope of practice request. Such review and evaluation shall include, but not be limited to, an assessment of any public health and safety risks that may be associated with the request, whether the request my enhance access to quality and affordable health care and whether the request enhances the ability of the profession to practice to the full extent of the profession's education and training. Upon concluding its review and evaluation of the scope of practice request, the committee shall provide its findings to the joint standing committee of the General Assembly having cognizance of matters relating to public health. The Department of Public Health (DPH) is responsible for receiving requests and for establishing and providing support to the review committees, within available appropriations.

Scope of Practice Request

The Connecticut dental Hygienists Association (CDHA) submitted a scope of practice request to establish an Advanced Dental Hygiene Practitioner (ADHP), a mid-level oral health provider who will provide an expanded scope of oral health services to underserved individuals in public health settings.

Building on the education and skills of the licensed registered dental hygienist, this mid-level provider will have completed a Master's degree program in advanced dental hygiene, will have additional clinical skills, be competent in skills necessary to navigate the complex health care system, advocate for patients, and effectively manage a clinic or practice. The ADHP will work as part of an interdisciplinary health team, in collaboration with dentists, dental hygienists, dental assistants and other health care professionals to deliver care. The ADHP will not replace any member of the dental team; instead the ADHP will supplement the ability of the existing dental workforce to reach patients currently disenfranchised from the oral health care delivery system.

Impact Statements and Responses to Impact Statements

Written impact statements in response to the scope of practice request submitted by CDHA were received from the Connecticut State Dental Association (CSDA), the Connecticut Association of Endodontics (CAE), the American Association of Oral and Maxillofacial Surgeons (AAOMS), the American Academy of Pediatric Dentistry (AAPD) and the Connecticut Society of Pediatrics (CSP). Although these organizations are interested in developing a mid-level oral health provider, they do not support the ADHP model. CDHA submitted written responses to the impact statements, which were reviewed by the scope of practice review committee.

Scope of Practice Review Committee Membership

In accordance with the provisions of Public Act 11-209, a scope of practice review committee was established to review and evaluate the scope of practice request submitted by the CDHA. The Department received three scope of practice requests related to dental care and services: the request submitted by the CDHA, which is the subject of this report; a request from the Connecticut State Dental Association (CSDA) related to the addition of interim therapeutic restorations (ITR) to the dental hygiene scope of practice; and a request from the Connecticut Dental Assistants Association (CDAA) related to expanded function dental auxiliaries. Because the issues are complex and the impacted parties are the same for all of the requests, the scope of practice review committees were combined. Committee members specific to this request included representation from:

1. the Connecticut Dental Hygienists' Association;
2. the Connecticut State Dental Association;

3. the Connecticut Association of Endodontics;
4. the American Association of Oral and Maxillofacial Surgeons;
5. the American Academy of Pediatric Dentistry/Connecticut Society of Pediatrics; and
6. the commissioner's designee (chairperson and ex-officio, non-voting member).

Representatives from the Department of Social Services, the Department of Public Health's Office of Oral Health and the Dental Assisting National Board (DANB) also participated in meetings and provided valuable information to the committee.

Scope of Practice Review Committee Evaluation of Request

CDHA's scope of practice request included all of the required elements identified in PA 11-209. Relevant information is outlined below.

Health & Safety Benefits

The Connecticut Dental Hygienists Association (CDHA) provided documentation of studies showing that mid-level practitioners provide safe, high-quality dental care. These studies demonstrate that if patients are able to access needed care earlier, the tendency to seek emergent care will be lessened. Emergent care does not solve the underlying, more serious dental problems. If the patient does not have access to follow-up appointments, he or she does not receive comprehensive care and the patient ultimately ends up back in the Emergency Room and the cycle will continue. CDHA believes that the use of mid-level practitioners is a step toward breaking this cycle and would provide access to early restorative intervention and comprehensive oral care.

Access to Healthcare

Historically, access to restorative care in Connecticut has been a challenge and it has been difficult to recruit and retain dentists to provide restorative services in public health facilities. Public health facilities include licensed health care facilities such as nursing homes and school-based health clinics, community health centers, group homes, schools, pre-schools and head start programs and programs offered or sponsored by the Federal Special Supplemental Program for Women, Infants and Children (WIC). Licensed dental hygienists currently provide preventive oral health care directly to patients in public health settings. The proposed ADHP would work as part of an interdisciplinary health team, in collaboration with dentists, dental hygienists, dental assistants and other healthcare professionals to deliver services, and would not replace any member of the dental team, but rather supplement the ability of the existing dental workforce to provide expanded oral healthcare in public health settings.

The ADHP proposal anticipates that a public health program's ability to increase treatment time efficiently reduces the barriers to care that patients experience, such as lack of transportation, time

away from work or school and cost, and that increasing capacity will reduce wait times for patient appointments and allow for early intervention with problems that can lead to more costly treatment. Coordination with other dental, medical, and social service providers allows for maintenance of individual quality care and enhances the general health of the population, producing positive and rewarding outcomes.

Data provided by the Department of Social Services (DSS) suggests that access is no longer an issue for the Connecticut Medicaid population; utilization is the problem. More specifically, utilization for restorative care is particularly problematic. Many patients only seek preventive care and don't know about or understand the importance of oral health. For example, some school based health centers only offer preventive care and although community dentists are available to provide restorative services, parents are not bringing their children for the necessary follow-up care. Dental providers including dental hygienists and dentists recognize that the dental home is the key, and through the ADHP mode, hygienists want to be an extension of the dental home not to be independent of that. DSS also indicated that reimbursement for services provided by a new provider type such as the ADHP would be available however Federal reimbursement laws direct that a State cannot create a new provider type to provide services solely for the Medicaid population; the new provider type would have to be authorized to provide services to individuals who have commercial insurance as well as the uninsured, in addition to the Medicaid population.

Laws Governing the Profession

The Registered Dental Hygienist (RDH) is an oral health professional licensed in each state. Like other licensed health professions, Connecticut law dictates the licensing requirements and scope of practice for the licensed dental hygienist in Connecticut. The Connecticut Department of Public Health (DPH) regulates the dental hygiene profession pursuant to Chapter 379a of the Connecticut General Statutes (CGS).

Connecticut law allows licensed dental hygienists to provide educational, preventive and therapeutic services including: complete prophylaxis; the removal of calcerous deposits, accretions and stains from the supragingival and subgingival surfaces of the teeth by scaling, root planning and polishing; the application of pit and fissure sealants and topical solutions to exposed portions of the teeth; dental hygiene examinations and the charting of oral conditions; dental hygiene assessment, treatment planning and evaluation; the administration of local anesthesia under certain conditions and collaboration in the implementation of the oral health care regimen.

Dental hygiene services may be performed under the general supervision of a dentist, which means the dental hygiene procedures are authorized by the supervising dentist, but does not required the onsite presence of the dentist. The law permits dental hygienists with two years of experience to work without the supervision of a dentist in public health facilities. The CDHA proposes that the statutes be amended to recognize a mid-level provider, the Advanced Dental Hygiene Practitioner, who would be a licensed dental hygienist who has completed additional education and training to provide educational,

preventive, palliative, and selected therapeutic and restorative services and would be authorized to provide such services to underserved populations, in public health settings.

Current Requirements for Education and Training and Applicable Certification Requirements

In order to qualify for dental hygiene licensure in Connecticut, an applicant must be a graduate of a dental hygiene program accredited by the Commission on Dental Accreditation (CODA) and successfully pass a written and clinical examination. Currently, dental hygienists can have an Associate's, Baccalaureate or Master's degree and also additional certifications such as for administration of local anesthesia. Licensed dental hygienists are also required to complete mandatory continuing education activities as a condition of license renewal.

Connecticut licensed registered dental hygienists who have completed an approved course in basic and current concepts of local anesthesia and pain control may administer local anesthesia, limited to infiltration and mandibular blocks under the indirect supervision of a licensed dentist. The local anesthesia program must include twenty hours of didactic training, including the psychology of pain management, a review of anatomy, physiology, pharmacology of anesthetic agents, emergency precautions and management, and client management; instruction on the safe and effective administration of anesthetic agents, and eight hours of clinical training which includes the direct observation of the performance of procedures. "Indirect supervision" means a licensed dentist authorizes and prescribes the use of local anesthesia for a patient and remains in the dental office or other location where the services are being performed by the dental hygienist.

Summary of Known Scope of Practice Changes

Within the last five years, enactment of Public Act 05-213 allowed licensed registered dental hygienists to administer local anesthesia in accordance with the provisions of Chapter 379a.

Impact on Existing Relationships within the Health Care Delivery System

CDHA reported that the majority of licensed dental hygienists are employed in private practice dental offices working under the general supervision of a dentist. "General supervision" means that dental hygiene procedures are performed with the knowledge of the dentist, but the dentist is not required to be on the premises when such procedures are being performed. The proposed scope of practice request will not affect private dental practices.

Currently, in public health settings throughout Connecticut licensed dental hygienists with two or more years of experience work without the supervision of a dentist. They provide the full scope of dental hygiene practice allowed in this setting and work collaboratively with dental and other health professionals in an integrated care model and refer patients with needs outside of the dental hygienist's scope of practice, including the coordination of such referrals for treatment to a licensed dentist or

other healthcare providers as appropriate. The proposed ADHP would continue existing relationships of referral and consultation as well as establish a formal collaborative agreement with a licensed dentist so that patients in need of services outside of the ADHP scope will be able to access comprehensive care. The ADHP is not intended to replace any member of the dental team, and would supplement and increase the ability of the existing dental workforce to reach patients currently disenfranchised from the oral healthcare delivery system.

Opponents of the ADHP proposal are concerned that implementing this scope of practice as requested by CDHA would negatively impact the working relationship of the dental team. They believe that independent hygienists would be competing for patients without being able to provide the full range of dental services that are typically delivered in the dental office, and that individuals who utilize these ADHPs might find themselves with compromised access to the dentist due to the lack of coordination of services inherent when dental hygienists are allowed to practice and bill for services without the benefit of a supervising dentist. There was no evidence provided to support these remarks. CDHA has been clear that they are not looking for independent practice, and that the proposed scope of practice would be incorporated into collaborative practice agreements between hygienists and licensed dentists.

Economic Impact

In December 2010, the PEW Center on the States issued a report titled "It Takes A Team: How New Dental Providers Can Benefit Patients and Practices." The report assesses the implications on patient capacity and revenue associated with the use of dental hygienists and new types of allied dental providers such as dental therapists and dental-hygienist therapists in private dental practices. Key findings in the report include: Allied providers can strengthen the productivity and financial stability of dental practices; allied providers can help practices treat more Medicaid-insured patients in a financially stable way; Medicaid reimbursement rates play a critical role; and fully utilizing allied providers is key to realizing productivity and profit gains. Although the PEW report focused on private dental practices and the introduction of "allied providers" (not necessarily the ADHP model), CDHA infers that the findings demonstrate the increased efficiency and productivity of a mid-level provider, such as the ADHP. There were no studies or data provided to the scope of practice review committee to show the projected economic impact of the use of allied providers, including but not limited to the ADHP, in public health settings.

The CDHA asserts that the ADHP model would increase access to healthcare and affordability in public health settings. Dental programs in public health settings operate with limited resources and need the most cost effective professional providing services in order to meet budgets. Opponents of this proposal are concerned that the ADHP model, which would require the completion of a master's degree program, would have a negative economic impact on the health care delivery system related to the expectation that the ADHP will demand a higher salary. It is expected that the ADHP mid-level provider would earn a salary that is between that of a dental hygienist and a dentist. While the PEW report identified above does caution that practitioners who are required to undergo lengthier periods of training or education generally demand higher salaries, the report does not necessarily suggest a

negative impact on the health care delivery system; it does however reflect that revenue benefits that dentists would otherwise accrue by hiring new providers into their private practices would be reduced.

Other than Minnesota and Alaska, mid-level oral health practitioners are not authorized to practice in any other states. It is premature to draw any conclusions or make any forecasts about the impact a new mid-level provider type will on access, utilization or cost as no actual practice data is available yet from the Minnesota program. No current data from the program in Alaska was provided. In addition, the potentially significant costs for educational institutions to develop a new program must be considered.

Regional and National Trends

While the national trend is to allow dental hygienists to work to the full extent of their education with limited or no supervision, which currently benefits the public in the provision of preventive care, literature suggests that there still remains a gap in access to restorative care. In recent years, stakeholders throughout the United States have identified a need for the creation of a mid-level oral health provider who can perform restorative services. However, the difficulty in Connecticut and in many other states continued to be overcoming disputes over who this mid-level oral health provider should be (i.e., ADHP, dental therapist, both), the appropriate level of education and training, and the level of dental supervision that should be included within collaborative practice agreements.

--*Alaska* Model

In 2002, a group of Native Alaskans were sent to New Zealand to receive dental therapy training in an effort to enhance dental services available in their isolated tribal villages. By 2007, a Dental Health Aide Therapist (DHAT) education program was created at the University of Washington's School of Medicine. Graduates of this two-year training program are authorized to provide limited oral health care services in underserved tribal areas in Alaska. The W.K. Kellogg Foundation reports that there have been no recent studies focusing on the quality of care associated with the DHAT model because the model is now an established standard of practice in the countries where they exist.

--*Minnesota* Model

In 2009, Minnesota became the first state in the U.S. to enact legislation creating a mid-level dental provider, the dental therapist, who will provide basic oral health and dental services to underserved patients and communities. The legislation was enacted to address Minnesota's access issues primarily in rural communities, nursing homes and group homes, community clinics and health centers, head start programs, hospital emergency rooms and Indian reservations. Minnesota's goals included improving access by filling gaps where there are not enough dentists, to extend the capacity of existing dentists and provide basic treatments where no dentists are available. The program is part of a broader strategy to improve access. The Minnesota model is not based on the dental hygienist model.

There are two levels of mid-level dental providers that will be licensed by the Minnesota Board of Dentistry: basic dental therapist and advanced dental therapist. Practice is limited to underserved patients and populations and practice is supervised by a dentist through a written collaborative management agreement. The advanced dental therapist is authorized to perform the full scope of practice of the dental therapist without a dentist on-site and may also perform oral evaluation, assessment (not diagnosis) and formulation of a treatment plan; simple extractions of diseased teeth; provide (not prescribe), dispense and administer analgesics, anti-inflammatories and antibiotics.

The University of Minnesota, Dental School offers both a Bachelor's degree program and a Master's degree program for dental therapists. There is no prior clinical experience required for entry into the University of Minnesota, Dental School programs. The Metropolitan State University Master of Science in Oral Health Care Practitioner Program is the educational program for advanced dental therapists. A bachelor's degree, an active dental hygiene license and prior clinical practice are prerequisites for acceptance into the program. The University of Minnesota expects to graduate the first Dental Therapist class in 2013. Metropolitan State University's inaugural program of seven students graduated in 2011. After graduation, dental therapist students must also pass a comprehensive examination prior to becoming licensed.

The Minnesota program is too new to draw any conclusions about the impact advanced dental therapists have on access, utilization or cost as no actual practice data is available yet. Other than Minnesota and Alaska, mid-level oral health practitioners are not authorized to practice in any other states.

--Outside of the U.S.

Dental therapists are currently utilized in over 50 countries, including New Zealand, Australia, Canada, Malaysia, Tanzania and Great Britain. Education and training requirements and scope of practice varies. It is also important to recognize that the standard of care provided in many other countries is not necessarily consistent with the level of care provided in the U.S. Factors such as the differences in their health care delivery systems, educational costs and geography must all be considered when comparing the use of mid-level providers in other countries with models being considered in the U.S.

Other Health Care Professions that may be Impacted by the Scope of Practice Request as Identified by the Requestor

CDHA's proposal would limit the ADHP's practice to public health settings. As such, CDHA identified that the scope of practice request does not affect private dental practices. The ADHP is not intended to replace any member of the dental team and would work collaboratively with dentists, dental hygienists, dental assistants and other health care professionals to ensure that underserved populations are able to access preventive, therapeutic and restorative services. In addition, the ADHP will make necessary referrals to dentists and other health professionals, serving to strengthen the crucial like between oral, medical and community health networks. It is expected that the ADHP will supplement the ability of the existing dental workforce to reach underserved patients in public settings.

Description of How the Request Relates to the Profession's Ability to Practice to the Full Extent of the Profession's Education and Training

The ADHP Master's degree curriculum builds upon the fundamental knowledge and skills achieved at the Baccalaureate level along with the registered dental hygiene license. It fosters independent thinking and learning needed for evidence-based clinical decision-making, advanced responsibility and scope of practice. The advanced education will prepare the ADHP to use sound clinical judgment and evidence-based decision making to determine within their scope of practice when patients can be treated, when they require further diagnosis and when referral is needed to a dentist or to other healthcare providers. The ADHP will work as part of an interdisciplinary health team, in collaboration with dentists, dental hygienists, dental assistants and other healthcare professionals to deliver care. The ADHP will enhance and supplement the existing dental team's ability to reach patients looking for oral healthcare services within the public healthcare system. The additional education required for ADHP ensures patient safety and provides a professional career ladder thereby expanding employment opportunities in public health care for Connecticut.

Findings and Conclusions

Untreated dental disease affects an individual's ability to learn, work and function in daily life and results in substantially higher costs to the health care system. A lack of preventive services and patient education, as well as delays in receiving care, can also result in more costly treatment. In Alaska and in other countries, mid-level providers have been shown to improve access for underserved populations and provide safe, high quality care. Many states have also attempted to address these issues by allowing dental hygienists to engage in expanded functions while several states are still considering the creation of a mid-level provider, including the advanced dental hygiene practitioner and the dental therapist. The major differences between the two models include education and training requirements, level of dental supervision and requirements for a collaborative management agreement, and setting where services are provided. The ADHP model proposed by the CDHA as endorsed by the American Dental Hygienists' Association (ADHA) builds upon the education, training and experience of licensed dental hygienists who have been practicing for a minimum of two years and would require additional graduate level education and training and practice under a collaborative agreement with a licensed dentist. The dental therapist model creates a mid-level provider who does not necessarily have a dental background, has no clinical experience and would practice under the supervision of a dentist pursuant to a collaborative management agreement. Although the scope of practice committee reviewed each of these models, the committee focused its evaluation on the CDHA's request to establish an ADHP.

In reviewing all of the information provided, the scope of practice review committee did not identify any specific public health and safety risks associated with allowing appropriately educated and trained dental hygienists to engage in expanded functions. Committee members support the CSDA's proposal to increase the scope of dental hygiene practice to include interim therapeutic restorations (ITR) with hand instruments in public health and institutional settings and establishing a pathway for licensed dental hygienists to become Expanded Functions Dental Auxiliaries (EFDAs) as outlined in the

Connecticut Dental Assistants Association's (CDAA's) separate scope of practice requests. The ITR and EFDA proposals would expand the current scope of practice for dental hygienists but neither of these proposals would establish a new mid-level provider. Although the CDHA has been clear that they are not looking for independent practice, the proposed scope of practice and collaborative practice agreements that would allow ADHPs to perform irreversible procedures with minimal to no supervision by a licensed raise significant concerns for opponents of the ADHP model. The ADHP model has also been compared to the Advanced Practice Registered Nurse (APRN); however there is still no national certification program for ADHP including competency examinations akin to those established for the APRN. The absence of a nationally accredited education and training program raises additional concerns for opponents. There is no national dental therapy examination but the Central Regional Dental Testing Service (CRDTS) has developed a dental therapy examination for Minnesota. There is currently only one advanced level education program in the nation to prepare mid-level oral health providers that is comparable to the proposed education included within the CDHA's ADHP proposal. The Minnesota program graduated its first class of seven students less than a year ago and it is too soon to draw any conclusions about impact on access, utilization or cost as no actual practice data is available yet. Other than Minnesota and Alaska, mid-level oral health practitioners are not authorized to practice in any other states. Connecticut's colleges and universities are reluctant to establish a costly master's degree program without the ADHP being a recognized, licensed profession.

Although it seems conceivable that the creation and utilization of a mid-level oral health provider such as an ADHP has the potential to enhance access to quality and affordable health care in Connecticut primarily through increased utilization, there was no documented current practice data provided to support this theory. Data provided by the Department of Social Services (DSS) suggests that access is no longer an issue for the Connecticut Medicaid population; utilization is the problem. More specifically, utilization for restorative care is particularly problematic. DSS also indicated that reimbursement for services provided by a new provider type such as the ADHP would be available however Federal reimbursement laws direct that a State cannot create a new provider type to provide services solely for the Medicaid population; the new provider type would have to be authorized to provide services to individuals who have commercial insurance as well as the uninsured, in addition to the Medicaid population. Creation of a mid-level ADHP would expand the dental hygiene profession's ability to practice to the full extent of the profession's current education and training.

The committee was not presented with draft statutory revisions for review. Should the Public Health Committee decide to raise a bill related to the CDHA's scope of practice request, the Department of Public Health along with the pertinent organizations that were represented on the scope of practice review committee to review this request (CDHA and CSDA) respectfully request the opportunity to work with the Public Health Committee on such a proposal.

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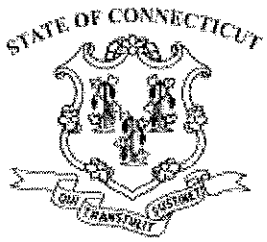
Appendix A



Substitute House Bill No. 6549

Public Act No. 11-209

AN ACT CONCERNING THE DEPARTMENT OF PUBLIC HEALTH'S OVERSIGHT RESPONSIBILITIES RELATING TO SCOPE OF PRACTICE DETERMINATIONS FOR HEALTH CARE PROFESSIONS.

Be it enacted by the Senate and House of Representatives in General Assembly convened:

Section 1. (NEW) (*Effective July 1, 2011*) (a) Any person or entity, acting on behalf of a health care profession that seeks to establish a new scope of practice or change a profession's scope of practice, may submit a written scope of practice request to the Department of Public Health not later than August fifteenth of the year preceding the commencement of the next regular session of the General Assembly.

(b) (1) Any written scope of practice request submitted to the Department of Public Health pursuant to subsection (a) of this section shall include the following information:

(A) A plain language description of the request;

(B) Public health and safety benefits that the requestor believes will be achieved should the request be implemented and, if applicable, a description of any harm to public health and safety should the request not be implemented;

(C) The impact that the request will have on public access to health care;

(D) A brief summary of state or federal laws that govern the health care profession making the request;

(E) The state's current regulatory oversight of the health care profession making the request;

(F) All current education, training and examination requirements and any relevant certification requirements applicable to the health care profession making the request;

(G) A summary of known scope of practice changes either requested or enacted concerning the health care profession in the five-year period preceding the date of the request;

(H) The extent to which the request directly impacts existing relationships within the health care delivery system;

(I) The anticipated economic impact of the request on the health care delivery system;

(J) Regional and national trends concerning licensure of the health care profession making the request and a summary of relevant scope of practice provisions enacted in other states;

(K) Identification of any health care professions that can reasonably be anticipated to be directly impacted by the request, the nature of the impact and efforts made by the requestor to discuss the request with such health care professions; and

(L) A description of how the request relates to the health care profession's ability to practice to the full extent of the profession's education and training.

(2) In lieu of submitting a scope of practice request as described in subdivision (1) of this subsection, any person or entity acting on behalf of a health care profession may submit a request for an exemption from the processes described in this section and section 2 of this act. A request for exemption shall include a plain language description of the request and the reasons for the request for exemption, including, but not limited to: (A) Exigent circumstances which necessitate an immediate response to the scope of practice request, (B) the lack of any dispute concerning the scope of practice request, or (C) any outstanding issues among health care professions concerning the scope of practice request can easily be resolved. Such request for exemption shall be submitted to the Department of Public Health not later than August fifteenth of the year preceding the commencement of the next regular session of the General Assembly.

(c) In any year in which a scope of practice request is received pursuant to this section, not later than September fifteenth of the year preceding the commencement of the next regular session of the General Assembly, the Department of Public Health, within available appropriations, shall: (1) Provide written notification to the joint standing committee of the General Assembly having cognizance of matters relating to public health of any health care profession that has submitted a scope of practice request, including any request for exemption, to the department pursuant to this section; and (2) post any such request, including any request for exemption, and the name and address of the requestor on the department's web site.

(d) Any person or entity, acting on behalf of a health care profession that may be directly impacted by a scope of practice request submitted pursuant to this section, may submit to the department a written statement identifying the nature of the impact not later than October first of the year preceding the next regular session of the General Assembly. Any such person or entity directly impacted by a scope of practice request shall indicate the nature of the impact taking into consideration the criteria set forth in subsection (b) of this section and shall provide a copy of the written impact statement to the requestor. Not later than October fifteenth of such year, the requestor shall submit a written response to the department and any person or entity that has provided a written impact statement. The requestor's written response shall include, but not be limited to, a description of areas of agreement and disagreement between the respective health care professions.

Sec. 2. (NEW) (*Effective July 1, 2011*) (a) On or before November first of the year preceding the commencement of the next regular session of the General Assembly, the Commissioner of Public Health shall, within available appropriations allocated to the department, establish and appoint members to a scope of practice review committee for each timely scope of practice request submitted to the department pursuant to section 1 of this act. Committees established pursuant to this section shall consist of the following members: (1) Two members recommended by the requestor to represent the health care profession making the scope of practice request; (2) two members recommended by each person or entity that has submitted a written impact statement pursuant to subsection (d) of section 1 of this act, to represent the health care professions directly impacted by the scope of practice request; and (3) the Commissioner of Public Health or the commissioner's designee, who shall serve as an ex-officio, nonvoting member of the committee. The Commissioner of Public Health or the commissioner's designee shall serve as the chairperson of any such committee. The Commissioner of Public Health may appoint additional members to any committee established pursuant to this section to include representatives from health care professions having a proximate relationship to the underlying request if the commissioner or the commissioner's designee determines that such expansion would be beneficial to a resolution of the issues presented. Any member of such committee shall serve without compensation.

(b) Any committee established pursuant to this section shall review and evaluate the scope of practice request, subsequent written responses to the request and any other information the committee deems relevant to the scope of practice request. Such review and evaluation shall include, but not be limited to, an assessment of any public health and safety risks that may be associated with the request, whether the request may enhance access to quality and affordable health care and whether the request enhances the ability of the profession to practice to the full extent of the profession's education and training. The committee, when carrying out the duties prescribed in this section, may seek input on the scope of practice request from the Department of Public Health and such other entities as the committee determines necessary in order to provide its written findings as described in subsection (c) of this section.

(c) The committee, upon concluding its review and evaluation of the scope of practice request, shall provide its findings to the joint standing committee of the General Assembly having cognizance of matters relating to public health. The committee shall provide the written findings to said joint standing committee not later than the February first following the date of the committee's establishment. The committee shall include with its written findings all materials that were presented to the committee for review and consideration during the review process. The committee shall terminate on the date that it submits its written findings to said joint standing committee.

Sec. 3. (NEW) (*Effective July 1, 2011*) On or before January 1, 2013, the Commissioner of Public Health shall evaluate the processes implemented pursuant to sections 1 and 2 of this act and report to the joint standing committee of the General Assembly having cognizance of matters relating to public health, in accordance with the provisions of section 11-4a of the general statutes, on the effectiveness of such processes in addressing scope of practice

requests. Such report may also include recommendations from the committee concerning measures that could be implemented to improve the scope of practice review process.

Approved July 13, 2011

Appendix B

Advanced Practice Dental Hygienist (ADHP)

Scope of Practice Committee Members

Jennifer Filippone, Department of Public Health
Wendy Furniss, Department of Public Health
Jennifer Lefkowski, Department of Public Health
Tatiana Barton, Connecticut State Dental Association, President
Jim Williams, Connecticut State Dental Association
Dr. John Raus, Connecticut State Dental Association
Carolyn Malon, Connecticut State Dental Association
L. Teal Mercer, RDH, Connecticut Dental Hygienist Association
Dinah G. Auger, Connecticut Dental Hygienist Association
Jody Bishop-Pulla, Connecticut Dental Hygienist Association
Celeste Baranowski, Connecticut Dental Hygienist Association
Marcia H. Lorentzen, RDH, EdD, Connecticut Dental Hygienist Association
Mary Calka, Connecticut Dental Hygienist Association
John Hillger, Connecticut State of Oral Maxillofacial Society
Ian Tergary, Connecticut State of Oral Maxillofacial Society
Oraine Ridley, CDAA
Gary Jacobs, CDAA
Karen K. Weeks, The Kawalski Group Lobbyist Connecticut Dental Hygienist Association
Mark Powers, Levin, Powers and Brennan
Kevin Hill, Levin, Powers and Brennan

Appendix C

Appendix C

Advanced Practice Dental Hygienist (ADHP)

Scope of Practice Committee Members

Jennifer Filippone, Department of Public Health
Wendy Furniss, Department of Public Health
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Mark Powers, Levin, Powers and Brennan
Kevin Hill, Levin, Powers and Brennan

EFFECTIVE DATE: July 1, 2011
SCOPE OF PRACTICE REQUEST
Written Request to DPH Per Public Act 11-209

Respectfully Submitted By;
The Connecticut Dental Hygienists' Association, Inc.
CDHA - August 11, 2011

The act allows any person or entity acting on behalf of a health care profession seeking legislative action in the following year's legislative session that would (1) establish a new scope of practice or (2) change a profession's scope of practice, to provide DPH with a written scope of practice request. This must be done by August 15 of the year preceding the start of the next regular legislative session.

Criteria

The request submitted to DPH must include:

1. a plain language description of the request;
   The request is to establish an Advanced Dental Hygiene Practitioner (ADHP) - a mid-level oral health provider, who will provide an expanded scope of oral health services to underserved individuals in public health settings.

   Building on the education and skills of the licensed registered dental hygienist, this mid-level provider will have completed a Master's degree program in advanced dental hygiene, will have additional clinical skills, will be competent in skills necessary to navigate the complex health care system, advocate for patients, and effectively manage a clinic or practice. The ADHP will provide educational, preventive, palliative, therapeutic, and restorative services through a collaborative agreement, thus increasing the capacity of public health programs to provide early intervention and comprehensive care to patients. The Advanced Dental Hygiene Practitioner (ADHP) will be a licensed registered dental hygienist who continues his/her education to obtain a Master's degree in order to become competent in additional clinical services, evidence-based practice, research, health policy and advocacy, practice management and more. The ADHP will be able to administer the full range of preventive services currently offered by licensed registered dental hygienists, in addition to minimally invasive restorative services, removal of exfoliating or mobile teeth and limited prescriptive authority such as analgesics, anti-inflammatory medication (prescription strength ibuprofen) and antibiotics, as stated in the ADHP curriculum. The ADHP will work as part of an interdisciplinary health team, in collaboration with dentists, dental hygienists, dental assistants and other health care professionals to deliver care. The ADHP will not replace any member of the dental team; instead the ADHP will supplement the ability of the existing dental workforce to reach patients currently disenfranchised from the oral health care delivery system. Graduates of the Master's program in advanced dental hygiene will have demonstrated competency, through successful completion of the advanced dental hygiene education program and passage of examinations.

   It is envisioned that applicants will be issued an Advanced Dental Hygiene Practitioner (ADHP) endorsement to their current dental hygiene license. The ADHP endorsement will be subject for renewal each licensure period. Applicants for renewal of the ADHP endorsement will be required to complete additional continuing education coursework prior to renewal.

2. public health and safety benefits that the requestor believes will occur if the request is implemented and, if applicable, a description of any harm to public health and safety if it is not implemented;
   Studies by highly respected academic and research institutions, such as the PEW Charitable Trust, support that non-dentist; mid-level practitioners provide safe, high-quality dental care. No study has ever found the care to be unsafe or to put patients at risk. Mid-level dental providers in over 40 countries work successfully to improve access and reduce costs. If patients are able to more easily access needed care early, the tendency to seek emergent care in the Emergency Room (ER) of a hospital will be lessened. The ER treats the symptoms and refers for follow-up treatment. They do not solve the underlying more serious dental problem. If there is not access to follow-up, comprehensive care, the patient ends up back in the ER and the cycle continues. This is a safe step toward breaking this cycle. The public will benefit with access to early restorative intervention and comprehensive care. Mid-level providers are common in medicine. The ADHP is akin to a nurse

practitioner or an APRN (Advanced Practice Registered Nurse). Mid-level providers in oral health exist in over 40 countries as well as in Alaska. Research demonstrates that the care provided by mid-levels is safe and will help increase access to care. The ADHP would work collaboratively with the current dental team and other healthcare providers. The ADHP, built on the current dental hygiene license, will be educated and regulated.

3. the impact of the request on public access to health care;
Connecticut has experienced difficulty in providing access to restorative care. Many public access programs are in the communities where health care is needed. There are currently two licensed dental providers: Dental hygienists and dentists. There is a difficulty recruiting and retaining dentists to provide restorative services in public health settings. The dental hygienist provides preventive oral health care directly to patients in public health settings. The mid-level, Advanced Dental Hygiene Practitioner (ADHP) will increase the care to underserved populations, by increasing the capacity of programs to provide preventive and restorative services in a cost effective manner. The ADHP will work as part of an interdisciplinary health team, in collaboration with dentists, dental hygienists, dental assistants and other healthcare professionals to deliver services. The ADHP is not proposed to replace any member of the dental team. The ADHP will supplement the ability of the existing dental workforce to provide expanded oral healthcare, in public health settings. A public health program's ability to increase treatment time efficiently reduces the barriers to care that patient's experience such as lack of transportation, time away from work or school and cost. Increased capacity reduces wait times for patient appointments and allows for early intervention of problems that can lead to more costly treatment. Coordination with other dental, medical and social service providers allows for maintenance of individual quality care and enhances the social impact of the public's health; producing positive and rewarding outcomes.

4. a brief summary of state or federal laws governing the profession;
The Registered Dental Hygienist (RDH) is an oral health professional licensed in each state. Like other licensed health professions, Connecticut state law dictates the licensing requirements and scope of practice for the licensed registered dental hygienist in Connecticut. The Connecticut Department of Public Health, DPH, regulates the dental hygiene profession, creating continuing education requirements for the licensed dental hygiene professional. Chapter 379a of the Connecticut General Statutes, CGS, stipulates that in order to qualify for dental hygiene licensure in Connecticut, an applicant must be a graduate of a dental hygiene program accredited by the Commission on Dental Accreditation (CODA) and successfully pass a written and clinical examination. Many licensed registered dental hygienists, who work in public health settings, have National Provider Identification (NPI) numbers. Licensed registered dental hygienists treat Medicaid patients; Medicaid is a state sponsored program.

The law allows licensed registered dental hygienists to provide educational, preventive and therapeutic services including: complete prophylaxis; the removal of calcerous deposits, accretions and stains from the supragingival and subgingival surfaces of the teeth by scaling, root planing and polishing; the application of pit and fissure sealants and topical solutions to exposed portions of the teeth; dental hygiene examinations and the charting of oral conditions; dental hygiene assessment, treatment planning and evaluation; the administration of local anesthesia in accordance with the provisions of subsection (d) of this section, and collaboration in the implementation of the oral health care regimen.

Dental hygiene services may be performed under the general supervision of a dentist. This means the dental hygiene procedures are authorized by the supervising dentist, but does not require the onsite presence of the dentist. The law permits dental hygienists with two years experience to work without the supervision of a dentist in public health facilities, such as but not limited to a community health center, a group home, a school, a health department, a preschool operated by a local or regional board of education or a Head Start program. The Connecticut Dental Hygienists' Association (CDHA) envisions the Advanced Dental Hygiene Practitioner (ADHP) scope to include the current dental hygiene scope and license as a pre-requisite and

amend state statute to add the educational requirements and additional skill set to provide educational, preventive, palliative, therapeutic, and restorative services to underserved populations, in public health settings.

5. the state's current regulatory oversight of the profession;
   The Registered Dental Hygienist (RDH) is a licensed professional and practices under the regulations set forth in the Connecticut State Statutes pertaining to Dentistry; Chapter 379a. Section 20-111-1 addresses the regulations for mandatory continuing education for annual licensure renewal. Currently, 16 face to face continuing education credits are required every two years. The Connecticut Department of Public Health (DPH) oversees the dental hygiene profession. Registered Dental Hygienists in Connecticut are licensed and required to prove continuing education and carry liability insurance. The Advanced Dental Hygiene Practitioner (ADHP) is envisioned to be a licensed registered dental hygienist, with expanded education, training and additional skills. The Connecticut Dental Hygienists' Association (CDHA) envisions the Advanced Dental Hygiene Practitioner (ADHP) scope to include the current dental hygiene scope and license, as a pre-requisite. State statute would be amended to add the expanded educational requirements and preventive, palliative, therapeutic, and restorative services beyond the current dental hygiene scope.

6. all current education, training, and examination requirements and any relevant certification requirements applicable to the profession;
   Currently dental hygienists can have an Associate's, Baccalaureate or Master's degree and also additional certifications such as local anesthesia. In order to qualify for dental hygiene licensure in Connecticut, an applicant must be a graduate of a dental hygiene program accredited by the Commission on Dental Accreditation (CODA) and successfully pass a written and clinical examination.
   The clinical exam: The North East Regional Board (NERB) of Dental Examiners, Inc. administers the ADHLEX (American Dental Hygiene Licensing Examination) which is the dental hygiene examination that is approved by ADEX (American Board of Dental Examiners), a nation-wide consortium, which develops reviews and approves examinations in dentistry and dental hygiene which are administered by state and regional testing agencies. NERB is one of the participating regional testing agencies, now administrating this examination.
   The Examination in Dental Hygiene consists of two Examinations: The Computer Simulated Clinical Examination (CSCE) is a computer based examination, approximately 2 hours in length, and usually takes place by appointment at a Prometric Testing Center. The Patient Treatment Clinical Examination (PTCE) is approximately 4 hours in length and is scheduled at a clinical examination site. Both Examinations must be passed to receive NERB Status. NERB Status is recognized by the participating NERB licensing jurisdictions.

   The written exam: The Joint Commission on National Dental Examinations (JCNDE) is the agency responsible for the development and administration of the National Board Dental Hygiene Examination (NBDHE). This 15-member Commission includes representatives of dental schools, dental practice, state dental examining boards, dental hygiene, dental students, and the public. A standing committee of the JCNDE includes other dental hygienists who act as consultants regarding this examination. The NBDHE is intended to fulfill or partially fulfill the written examination requirement, but acceptance of National Board scores is completely at the discretion of the individual state. A state may place any limit on acceptance of National Board scores that it deems appropriate. For example, some states accept National Board scores only if earned within the last five to 15 years. Currently, all United States licensing jurisdictions recognize National Board results. These jurisdictions include all 50 states, the District of Columbia, Puerto Rico, Guam, and the U.S. Virgin Islands.

   The local anesthesia certificate: The Connecticut Department of Public Health (DPH) accepts a local anesthesia certificate of completion. Connecticut licensed registered dental hygienists who have completed the approved course receive a certificate stating that they are certified to administer local anesthesia, limited to infiltration

and mandibular blocks, under the indirect supervision of a licensed dentist in the state of Connecticut. The local anesthesia certified, registered dental hygienist has demonstrated successful completion of a course of instruction containing the basic and current concepts of local anesthesia and pain control in a program accredited by the Commission on Dental Accreditation (CODA), or its successor organization, that includes: Twenty hours of didactic training, including but not necessarily limited to, the psychology of pain management, a review of anatomy, physiology, pharmacology of anesthetic agents, emergency precautions and management, and client management; instruction on the safe and effective administration of anesthetic agents, and eight hours of clinical training which shall include the direct observation of the performance of procedures. Local Anesthesia for the Dental Hygienist in the State of Connecticut is listed in CGS, Chapter 379a, and Sec. 20-126 l.

The law allows licensed registered dental hygienists to provide educational, preventive and therapeutic services. The ADHP curriculum is designed to build upon and extend the body of knowledge and competencies of the Baccalaureate dental hygiene education. The education and training requirements would include a Master's level education in advanced dental hygiene. The Advanced Dental Hygiene Practitioner (ADHP) will be a licensed registered dental hygienist who continues his/her education to obtain a Master's degree in order to become competent in additional clinical services, evidence-based practice, research, health policy and advocacy, and practice management. The ADHP requires a specific Master's degree in advanced dental hygiene; any other Master's degree would not qualify. The ADHP will be able to administer the full range of preventive services offered by dental hygienists, in addition to minimally invasive restorative services, removal of exfoliating or mobile teeth and limited prescriptive authority such as analgesics, anti-inflammatory medication (prescription strength ibuprofen) and antibiotics, as stated in the ADHP curriculum.

The ADHP Master's education program will be taught in an institution accredited by the State of Connecticut Department of Higher Education Advisory Committee on Accreditation. When a new practitioner is developed, such as this one, accreditation agencies wait until the first education programs have been established and the first graduates enter practice before they establish accreditation standards. The Commission on Dental Accreditation (CODA) convened the *Task Force on New Dental Team Members* to investigate whether the Commission should establish a process of accreditation for educational programs *in new areas of allied dentistry*.

On August 9, 2011 it was announced that The Commission on Dental Accreditation (CODA) voted to set accreditation standards for dental therapy education programs in the U.S. The decision is in response to a request by the University of Minnesota, the first U.S. dental school to initiate such programs. The commission -- which functions as an agency of the American Dental Association (ADA) -- estimates that the standards will take at least two years to develop. However, in 2009, Minnesota became the first state in the U.S. to approve a law allowing midlevel dental practitioners, and students have completed the two-year program to be licensed dental therapists and received Master's degrees as oral healthcare practitioners. After completing 2,000 hours of dental therapy clinical experience, they will become licensed advanced dental therapists. Licensed advanced dental therapists will be able to practice at facilities such as nursing homes, within the dental therapy scope of practice. They will be able to perform nonsurgical extractions of mobile permanent teeth under a dentist's general supervision with a collaborative management agreement.

trends

CODA is recognized by the U.S. Department of Education [USDE] to accredit dental and dental-related education programs conducted at the postsecondary level. State dental boards can set the specific scopes of practice for dental personnel where the boards have jurisdiction, and state dental boards can certify

educational and training programs without accreditation by CODA. CODA's Chairman will appoint a task force of dental educators and practitioners with experience in dental education to develop the new standards, and the task force will report to the commission on its progress at the August 2012 CODA meeting. Drafts of the standards will go out for comment which according to ADA, usually lasts a year, and includes open hearings at the ADA's annual meeting. CODA will then review the comments and may revise the proposed standards. If the revisions are significant, the draft standards may go out for comment for an additional year.

7. a summary of known scope of practice changes requested or enacted concerning the profession in the five years preceding the request;
Preceding this request, a change in the dental hygiene scope of practice in Connecticut was passed in a Public Act in 2005. Public Act 05-213, *An Act Concerning Access To Oral Health Care*, which allows in sections 7, 10, licensed registered dental hygienists to administer local anesthesia in accordance with the provisions of Chapter 379a of the Connecticut General Statutes, Sec. 20-126l, subsection (d). —infiltration and mandibular blocks—under a dentist's indirect supervision.

An ADHOC committee was established by DPH Commissioner Galvin in 2004. CDHA also supported the changes to the Dental Practice Act as defined in legislation and developed during the meetings with the Oral Health Access Ad Hoc Committee as defined in House Bill 5636 passed during the 2004 Legislative Session, Special Act No. 04-7.

The Committee was given seven specific areas to review; among them were workforce models and access to care. Numerous meetings were held with representatives from DPH, state legislators, dental hygiene, dentistry and dental assisting prior to and as a subsequence of the Special Act 04-7, *An Act Concerning Oral Health Care*. At that time, there was an understanding among the parties involved that workforce models to address access to oral health care would be enacted in subsequent years. The Connecticut Dental Hygienists' Association (CDHA) has participated at these meetings and all discussion.

In 2009, 2010 and 2011, legislation was introduced requesting a scope of practice change to establish an Advanced Dental Hygiene Practitioner (ADHP). This legislation garnered bipartisan support from legislators and passed overwhelmingly out of the Joint Committee on Human Services during Legislative Sessions in both 2010 and 2011. In addition, a change was requested for the regulations pertaining to licensure to increase the hours of continuing education needed to renew the dental hygiene license. This request is currently being considered by the Connecticut Department of Public Health (DPH).

8. the extent to which the request directly affects existing relationships within the health care delivery system;
The majority of licensed registered dental hygienists are employed in private practice dental offices working under the general supervision of a dentist; general supervision does not require a dentist to be on the premises. Licensed Registered Dental Hygienists exercise the dental hygiene roles, make decisions regarding patient care and then carry out the best decision for the patient. This scope of practice request will not affect private dental practices.

Currently, in public health settings throughout Connecticut licensed registered dental hygienists, with 2 or more years of experience, work without the supervision of a dentist. They exercise the dental hygiene roles, make decisions regarding patient care and then implement treatment that supports the best decision for the patient. Licensed Registered Dental Hygienists (RDH) working in public health settings work collaboratively with dental and other health professionals in an integrated care model. Licensed Registered Dental Hygienists refer patients in need of additional care to dentists and other healthcare providers.

Similarly, the Advanced Dental Hygiene Practitioner (ADHP) will continue existing relationships of referral and consultation as well as establish a formal collaborative agreement; so that patients in need of services outside of the ADHP scope will be able to access comprehensive care. The ADHP will not replace any member of the

dental team. The ADHP will supplement and increase the ability of the existing dental workforce to reach patients currently disenfranchised from the oral healthcare delivery system.

9. the anticipated economic impact of the request on the health care delivery system;
A 2011 report from the PEW Center on the States indicates that mid-level providers make it financially viable for most dental practices to see Medicaid patients. While these numbers speak to the private dental practice, they demonstrate the increased efficiency and productivity of a mid-level provider, such as the Advanced Dental Hygiene Practitioner (ADHP). The PEW report noted the absence of mid-level providers in their report on Connecticut. The ADHP would increase access to healthcare and increase the affordability in public health settings. Public health programs operate with limited resources and need the most cost effective professional providing services in order to meet budgets. The ADHP midlevel provider is expected to have a salary that is between that of a dental hygienist and a dentist. By adding the ADHP to the current public health system of care, patients who are currently unable to access restorative care will have a new pipeline to the oral health care delivery system.

A study from the Journal of the American Dental Association (JADA) indicates that uninsured and underserved patients visit hospital emergency departments for tooth pain and dental care; however, emergency departments are not equipped to provide definitive oral health care. When definitive care is not provided, patients may repeatedly return for treatment of the unresolved condition. The result is expensive emergent care billed to Medicaid or the uninsured patient. The ADHP would provide comprehensive care to underserved patients thus decreasing the likelihood of the patients need to visit emergency departments for oral health care.

According to a Pediatric Dentistry article: *"A comparison of Medicaid reimbursement for non-definitive pediatric dental treatment in the emergency room versus periodic preventive care":* a three-year aggregate comparison showed Medicaid reimbursement for in-patient emergency department treatment ($6,498) versus preventive treatment ($660). This revealed that on average, the cost to manage symptoms related to dental caries (cavities / decay) on an in-patient basis is approximately 10 times more costly than to provide dental care for the same patients in a private or public setting dental practice. There has been an increase in the number of current licensed registered dental hygienists who show interest in higher education and many have enrolled in Baccalaureate and Masters Programs. The establishment of an ADHP provides a professional career ladder which is attractive to potential candidates, creates new job opportunities in the healthcare sector and helps expand the diversity of the healthcare workforce.

10. regional and national trends in licensing of the health profession making the request and a summary of relevant scope of practice provisions enacted in other states;
Dental hygienists work in a host of settings to deliver clinical care. Each state enacts its own laws determining the services dental hygienists can perform, the settings in which they can practice, and the supervision under which they practice. Currently,
    - 35 states allow dental hygienists to initiate preventive oral health care in settings outside of the private dental office without specific authorization from a dentist;
    - 37 states allow dental hygienists to perform temporary restorations;
    - 44 states (including DC) permit dental hygienists to administer local anesthesia; and
    - 26 states (including DC) permit dental hygienists to administer nitrous oxide.

While the national trend is to allow dental hygienists to work to the full extent of their education with limited or no supervision, which currently benefits the public in provision of more preventive care, there remains a gap in access to restorative care. In recent years, stakeholders throughout the United States have identified a need for the creation of a mid-level oral health provider who can perform restorative services.

In 2002, a group of Native Alaskans were sent to New Zealand to receive dental therapy training in an effort to enhance dental services available in their isolated, tribal villages. In 2003, the first class of Native Alaskans enrolled in a two year dental therapy program at the University of Otago (New Zealand), with support from

the Alaska Native Tribal Health Coalition. Upon completion of their two year education, the Dental Health Aide Therapists (DHAT) took their training back to Alaska to provide basic oral health care in the remote tribal areas of the state. By 2007, a DHAT education program was created at the University of Washington's School of Medicine to provide a two-year training program (one year in the classroom and one year in a clinical environment) before graduates are given the opportunity to provide limited oral healthcare in underserved tribal areas in Alaska.

In 2004, the American Dental Hygienists' Association (ADHA) became the first national oral health organization to propose a new oral health provider, the Advanced Dental Hygiene Practitioner (ADHP) and the ADHP competencies were created. In 2009, Minnesota became the first state to pass legislation creating mid-level oral health practitioners, a dental therapist and an advanced dental therapist, making new providers a reality in the lower 48 states. Minnesota became the first state to legislate the creation of midlevel oral health providers – the Dental Therapist (DT) and Advanced Dental Therapist (ADT). The DT concept is modeled after the physician's assistant model in medicine which requires on-site supervision for most services provided. The University of Minnesota's School of Dentistry currently offers a Bachelors level DT program. The ADT is modeled after the nurse practitioner model in medicine and is designed to facilitate collaboration between the ADT and dentist, but does not require on-site supervision.

Metropolitan State University offers a Master's level program in which students are educated using the Advanced Dental Hygiene Practitioner (ADHP) competencies. A prerequisite of this program is dental hygiene licensure and a Baccalaureate degree. The first class of ADT students graduated from Metropolitan State University in June 2011 and will practice with dual ADT and dental hygiene licensure.

In addition to Alaska and Minnesota, the W.K. Kellogg Foundation announced it was spearheading a $16 million campaign to establish a mid-level practitioner model in Kansas, New Mexico, Ohio, Vermont, and Washington State. The trend is towards combining the dental therapist model with a dental hygiene based model.

11. identification of any health care professions that can reasonably be anticipated to be directly affected by the request, the nature of the impact, and efforts made by the requestor to discuss it with such health care professions;
The Advanced Dental Hygiene Practitioner (ADHP), as proposed to work in public health settings, would positively impact the oral healthcare delivery system by providing an additional point of entry for patients currently disenfranchised from the system. This scope of practice request will not affect the private dental practice. The ADHP would not replace any member of the dental team. The ADHP is proposed to work collaboratively with dentists, dental hygienists, dental assistants and other health professionals to ensure that underserved patients are able to access preventive, therapeutic and restorative services. In addition, the ADHP will make necessary referrals to dentists and other health professionals, serving to strengthen the crucial link between the oral, medical and community health networks. The ADHP will supplement the ability of the existing dental workforce to reach underserved patients in public health settings. Beginning with the ADHOC committee establish by the Commissioner of the Connecticut Department of Public Health (DPH) in 2004, numerous meetings have been held among representatives from dental hygiene, dentistry and dental assisting. Discussions addressed workforce models and access to care both prior to and subsequent to the Special Act 04-7, *An Act Concerning Oral Health Care*, as mentioned previously. The Connecticut Dental Hygienists' Association (CDHA) has participated in the discussions and will continue to be available in the future.

12. and a description of how the request relates to the health care profession's ability to practice to the full extent of the profession's education and training.
A licensed registered dental hygienist plays an important role on the oral healthcare team; preventing oral disease and treating it while it is still manageable which can save critical healthcare dollars in the long-run. Licensed registered dental hygienists must graduate from an accredited dental hygiene education program (typically three or more academic years in length) and pass national written and regional clinical examinations

prior to obtaining a license. Additionally, once licensed; registered dental hygienists are required to take continuing education courses in order to renew their license.

Licensed registered dental hygienists are educated and trained to provide preventive oral healthcare including prophylaxis, fluoride application and sealants. Connecticut statute allows the licensed registered dental hygienist with two years experience to provide preventive care to patients in public health settings without supervision. While this allows the public increased access to preventive oral healthcare, low income and uninsured patients in need of additional restorative care often experience barriers in accessing care from a dentist. Among these barriers are lack of transportation, inability to get time off from work or school and inability to find a dentist who will accept Medicaid patients. By utilizing the existing workforce of over 3,500 registered dental hygienists licensed in the state of Connecticut along with the proposed Master's degree program, the Advanced Dental Hygiene Practitioner (ADHP) provides a timely solution to the access to care crisis. Licensed registered dental hygienists have completed coursework in anatomy, biology, microbiology, physiology, chemistry, general pathology, oral pathology, histology, pharmacology, dental morphology, psychology, sociology, nutrition, dental materials, individualized oral hygiene instruction, public health and infection control among other courses.

The ADHP Master's degree curriculum builds upon the fundamental knowledge and skills achieved at the Baccalaureate level along with the registered dental hygiene license. It fosters independent thinking and learning needed for evidence-based clinical decision making, advanced responsibility and scope of practice. The advanced education will prepare the ADHP to use sound clinical judgment and evidence-based decision making to determine within their scope of practice when patients can be treated, when they require further diagnosis and when referral is needed to a dentist or to other healthcare providers. The ADHP will work as part of an interdisciplinary health team, in collaboration with dentists, dental hygienists, dental assistants and other healthcare professionals to deliver care. The ADHP will enhance and supplement the existing dental team's ability to reach patients looking for oral healthcare services within the public healthcare system. The additional education required for the ADHP ensures patient safety and provides a professional career ladder thereby expanding employment opportunities in public health care for Connecticut.

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H.B. 6819, Public Act 05-213, An Act Concerning Access To Oral Health Care http://www.cga.ct.gov/2005/ACT/PA/2005PA-00213-R00HB-06819-PA.htm

Exemptions

Instead of submitting a scope of practice request to DPH, a person or entity can request an exemption. (But since the act allows, rather than requires, the scope of practice request, it is unclear when a person or entity would submit an exemption request.)

An exemption request must include a plain language description and the reasons for the request, including (1) exigent circumstances that require an immediate response to the scope of practice request, (2) a lack of dispute about the request, or (3) any outstanding issues among the health care professions that can easily be resolved. The exemption request must be submitted to DPH by August 15 of the year preceding the next regular legislative session.

Notification to the Public Health Committee

By September 15 of the year preceding the next session, DPH, within available appropriations, must (1) give written notice to the Public Health Committee of any health care profession that has submitted a scope of practice or exemption request to the department and (2) post the request and the requestor's name and address on its website.

Impact Statement

Any person or entity acting on behalf of a health care profession that may be directly impacted by a scope of practice request may submit a written statement to DPH by October 1 of the year preceding the next legislative session. The person or entity must indicate the nature of the impact, taking into consideration the criteria listed above, and provide the requestor with a copy of the impact statement. By October 15 of the same year, the requestor must submit a written response to DPH and any person or entity that submitted an impact statement describing at a minimum, areas of agreement and disagreement between the respective health professions.

SCOPE OF PRACTICE COMMITTEES

Membership

By November 1 of the year preceding the next legislative session, the DPH commissioner must, within available appropriations, establish and appoint members to a scope of practice review committee for each timely scope of practice request the department receives. The committees consist of:

1. two members recommended by the requestor to represent the health care profession making the request;

2. two members recommended by each person or entity that submitted a written impact statement to represent the health care professions directly impacted by the request; and

3. the DPH commissioner or her designee who serves in an exofficio, non-voting capacity.

The DPH commissioner or her designee serves as the committee chairperson and may appoint additional committee members representing health care professions with a proximate relationship to the underlying scope of practice request if the commissioner or her designee determines it would help to resolve the issues.

Committee members serve without compensation.

Duties

The committee must review and evaluate the scope of practice request, subsequent written responses to the request, and any other information the committee deems relevant. This must include (1) an assessment of any public health and safety risks associated with the request, (2) whether the request may enhance access to quality and affordable health care, and (3) whether the request improves the ability of the profession to practice to the full extent of its education and training. The committee may seek input from DPH and other entities it determines necessary to provide its written findings.

After finishing its review and evaluation of the scope of practice request, the committee must give its findings to the Public Health Committee by the following February 1. It must include with its findings all the material it considered during its review process. It terminates on the date it submits its findings to the Public Health Committee.

Evaluation

By January 1, 2013, the act requires the DPH commissioner to evaluate the scope of practice request process and report to the Public Health Committee on its effectiveness in addressing these requests. The report may also include recommendations from the scope of practice review committees on measures to improve the process.

OLR Tracking: JK:KM:VR:ts

Appendix D

American Academy of Pediatric Dentistry
211 East Chicago Avenue, Suite 1700 • Chicago, Illinois 60611-2637 • 312-337-2169 • Fax: 312-337-6329 • *www.aapd.org*

September 30, 2011

Jennifer L. Filippone, Chief
Practitioner Licensing and Investigations Section
Department of Public Health
410 Capitol Ave. MS#12MQA
PO Box 340308
Hartford, CT 06134

Dear Ms. Filippone:

The American Academy of Pediatric Dentistry is writing in support of the Connecticut Society of Pediatric Dentists (CSPD) scope request which would maintain the scope of practice for the practice of dental hygiene in its current composition. This request is in opposition to the scope of practice change proposed by the Connecticut Dental Hygienist Association (CDHA), which would allow for the implementation of a new model for the practice of dental hygiene called the Advanced Dental Hygiene Practitioner (ADHP). This request is made in accordance with Public Act 11-209, An Act Concerning the Department of Public Health's Oversight Responsibilities Relating to Scope of Practice Determinations for Health Care Professions.

Founded in 1947, the **American Academy of Pediatric Dentistry (AAPD)** is a not-for-profit membership association representing the specialty of pediatric dentistry. The AAPD's 8,000 members are primary oral health care providers who offer comprehensive specialty treatment for millions of infants, children, adolescents, and individuals with special health care needs. The AAPD also represents general dentists who treat a significant number of children in their practices. As advocates for children's oral health, the AAPD develops and promotes evidence-based policies and guidelines, fosters research, contributes to scholarly work concerning pediatric oral health, and educates health care providers, policymakers, and the public on ways to improve children's oral health. For further information, please visit the AAPD Web site at *www.aapd.org*.

The scope of practice change proposed by the CDHA would allow dental hygienists to perform functions, such as irreversible surgical procedures, that they do not have the training, education or experience to perform, without the direct supervision of the dentist. The training proposed for the ADHP credential is limited to a Masters degree. This is in direct contrast to the many years of education and supervised clinical experiences required of a dentist. After completing a 4 year degree, the dentist must complete 4 years at an accredited dental school. Dental School includes clinical experiences under the direct supervision of a dentist. For pediatric dentists, dental school is followed by 24 to 36 months of specialized training.

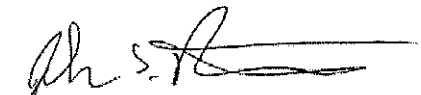
The AAPD believes that dental care is most effectively delivered within the context of a dental home. A dental home is the ongoing relationship between the dentist and the patient, inclusive of all aspects of oral health care delivery, in a comprehensive, continuously-accessible, coordinated, and family-centered way. Central to the dental home model is dentist-directed care. The dentist performs the examination, diagnoses oral conditions, and establishes a treatment plan that includes preventive services, and all services are carried out under the dentist's supervision.

As an organization that advocates for policies that result in optimal oral health for all children, the AAPD is opposed to the ADHP model, which allows for dental services to be provided outside of the dental home by individuals who are not sufficiently trained to provide the full range of services necessary for comprehensive and continuous dental care. The enactment of legislation that would result in the ADHP may lead to a two-tiered system of care, where those with the most complex medical needs are treated by providers with the lowest level of professional training. Additionally, the literature indicates that hygiene, when practiced independently of a dental office, actually decreases access to dentists by the Medicaid population.

The alternative scope of practice change submitted by the CSPD which would lead to the implementation of an EFDA model fits within the evidence-based guidelines of the AAPD. The EFDA, unlike the ADHP, operates within the dental home, under the supervision of a dentist. Duties performed by the EFDA will improve the efficiency of the dental office and increase its capacity. Connection to the dental home ensures that patients will have access to comprehensive care, including restorative services when needed.

Sincerely yours,

Rhea M. Haugseth, DMD
President



John S. Rutkauskas, DDS, MBA, CAE
Chief Executive Officer

September 30, 2011

VIA E-MAIL: jennifer.filippone@ct.gov

Jennifer L. Filippone
Chief Practitioner Licensing and Investigations Section
Department of Public Health
410 Capitol Avenue, MS#12MQA
PO Box 340308
Hartford, CT 06134

Dear Ms. Filippone:

I am submitting this response on behalf of the 92 members of the Connecticut Association of Endodontists (CAE). This impact statement is submitted under the provisions of Public Act 11-209 in response to the "Scope of Practice Request" submitted by the Connecticut Dental Hygienists' Association (CDHA).
The CAE opposes the creation of an Advanced Dental Hygiene Practitioner (ADHP) as proposed by the CDHA.

An ADHP practitioner, as listed on the website of the American Dental Hygiene Association, provides services which include preparation of cavities and restoration of primary and permanent teeth using direct placement of appropriate dental materials, pulp capping in primary and permanent teeth, and pulpotomies on primary teeth. These competencies require a significant amount of study and testing before a dentist is competent to perform them. We see no hard data that the ADHP will be prepared to carry out these procedures without risking harm to the citizens of our state.

Endodontists receive two to three years of additional training beyond dental school in order to perform the above procedures competently and safely. This puts us in the position to better treat the more complex endodontic problems. More importantly it provides us with additional training to diagnose problems impacting both primary and permanent teeth which could lead to arrested development or even loss of a tooth if not treated properly.

As Endodontists we frequently get referrals from general dentists to diagnose and or treat the situations just discussed. Our field is evolving rapidly with the ability to encourage existing dormant stem cells to populate the tooth when indicated and treated properly. As our American population becomes more medically complicated, and treating them becomes more difficult, this is no time to sacrifice quality and safety in favor of a new model that temptingly suggests it can do the same for less.

We received our dental and endodontic training through programs that were scrutinized and approved by the national Commission On Dental Accreditation (CODA). This group consists of dentists, educators and lay people that review and accredit institution that provide dental training. Rather than work through CODA to get their proposed practitioner accredited, the CDHA chooses to self-accredit their proposed program. This is like allowing the fox to watch the hen house. They should allow them themselves to be scrutinized and accredited like every other dental practitioner!

The current dental delivery system has yet to reach capacity and many of the +1,200 dental providers in the Connecticut Dental Health Partnership have time for and would like to treat additional patients. Clearly, the need here is not one of access because according to the Department of Social Services the citizens of Connecticut have ample access to oral health care. If utilization of services is a concern of your department then we would encourage you to pursue appropriate funding and education of patients to use the available, appropriately trained providers that stand ready to treat them.

On behalf of the CAE I wish to again state our strong opposition to the ADHP proposal. Thank you for your consideration. Please contact me if you have any questions or would like additional information.

Sincerely,

Brian Amoroso, DDS
President
Connecticut Association of Endodontists

CONNECTICUT DENTAL ASSISTANTS ASSOCIATION

cdaa4u.org

October 15, 2011

Jennifer Filippone, Chief
Practitioner Licensing and Investigation Section
Department of Public Health
410 Capitol Avenue, MS#12MQA
P.O. Box 340308
Hartford, CT 06134

Dear Jennifer,

The Connecticut Dental Assistants Association (CDAA) acknowledges support of our recent Scope of Practice Request by the American Academy of Pediatric Dentistry (AAPD) in their impact statement document dated September 30, 2011. This Scope of Practice Request asks for an increase in scope of practice to provide for Expanded Functions Dental Auxiliaries (EFDAs) in Connecticut.

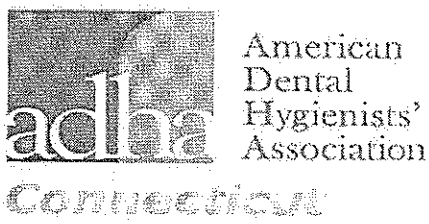
The CDAA agrees with the AAPD that an EFDA working under the dentist's supervision can perform duties that are complimentary and in support of the treatment plan outlined by the dentist with increased efficiency and capacity.

The CDAA would like to express our gratitude to the AAPD for their support of this very important initiative. This opportunity would allow dental auxiliary personnel more responsibility and dentists more flexibility to potentially treat a greater number of patients in a variety of healthcare settings, thus increasing the access to dental care for Connecticut's underserved citizens.

The CDAA looks forward to working with our dental colleagues and the Department of Public Health to further investigate this request.

Sincerely,

Beth M. Barber, COA, MADAA, BS
President CDAA



ORIGIN OF DENTAL HYGIENE 1913

CONNECTICUT DENTAL HYGIENISTS' ASSOCIATION, INC.
ADVOCATES FOR ORAL HEALTH MANAGEMENT

Rebuttal Response to the Department of Public Health (DPH) October 15, 2011
Jennifer L. Filippone, Chief Practioner Licensing and Investigation Section
Connecticut Department of Public Health PO BOX 340308
410 Capitol Avenue, MS #12MQA Hartford, CT 06134

Dear Ms. Filippone:

The Connecticut Dental Hygienists' Association (CDHA) is respectfully submitting a written response to the impact statement filed by the Connecticut State Dental Association (CSDA) regarding CDHA's Scope of Practice Request to establish the Advanced Dental Hygiene Practitioner (ADHP) in Connecticut. In its impact statement, CSDA opposes additional education for a licensed dental hygiene professional, resulting in a mid-level, ADHP. The concept of mid-level oral health providers, like the ADHP, currently exist in Alaska and 40+ countries, including Canada, New Zealand, Australia, and the United Kingdom.

CSDA states that the realities of the access to care issue in Connecticut have changed dramatically. Those of us working in public health settings, where the ADHP is proposed, have not seen as positive a change as report by CSDA. The "mystery shopper" calls conducted do not tell the whole story. The care is not always complete due to the many barriers our patients experience. The utilization of an ADHP mid-level provider, places the care where there is need.

CSDA made a great push to have dentists sign up as providers to increase care and this has increased dental services among children in the Medicaid system, as CSDA reports. Unfortunately, it leaves out families of these children, adults, uninsured and underinsured patients, who are seen in public health facilities. Children in the Medicaid system already had access to care.

Many public health facilities are already hygiene driven and the ADHP would fit into the team, which usually includes a dentist. The ADHP would work in a collaborative relationship with dentists, not opposing dentists. The education would assure that there would not be a compromise to the welfare of the public. Dental Hygienists always update medical history and discussed health risks with the patient and/or dentist allowing us to competently protect the safety and welfare of our patients.

The protocol currently used daily by licensed dental hygienist professionals is to refer or call in the dentist of record or a specialist as the situation warrants. Dental Hygienists are held to this standard by licensure. Registered Dental Hygienist (RDH) or ADHP would continue to utilize these referral mechanisms. Dental Hygienists and ADHPs will preserve our future working relationship within the oral health care (dental) team and with other health care professionals as health care moves into an integrated care system.

The New York University College of Dentistry Global Health NEXUS published recently *Access to Care: Is there a Problem?* The Summer - 2011, Volume 13, No. 12, issue is composed of articles written by experts in dentistry. Contrasting views were presented in this publication; however, highlighted below are two in support of the ADHP concept.
Support for ADHP, with defined reasoning, was presented by Ann Battrell, RDH, MSDH ... pp30 -33; Ms. Battrell refers to medicine's acceptance of the nurse practitioner. The ADHP model is similar to the nurse practitioner, and the nurse practitioner concept is highly favorable and comfortable to public, regulators, and legislators.

ORIGIN OF DENTAL HYGIENE 1913

CONNECTICUT DENTAL HYGIENISTS' ASSOCIATION, INC.
ADVOCATES FOR ORAL HEALTH MANAGEMENT

Dr. David A. Nash, DMD, MS, EdD Professor of Pediatric Dentistry, University of Kentucky College of Dentistry, on pp 35-39, writes on the need for caring for the nation's children: "Society cannot pay us more money to care for our economically disadvantaged children; we dentists will accept no less. In such a quandary the profession must lead in advancing a model for an alternative delivery system that will enable our children to be cared for within the financial resources society can provide." He goes on to suggest that school-based health programs are an important dimension of the nation's healthcare delivery system...." School-based care utilizing pediatric oral health (dental) therapists is a proven, cost-effective strategy to accomplish this goal. It is a strategy that will enable dentistry to address its professional imperative."

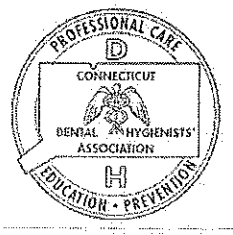
These two contributors to NEXUS make it clear that the mid-level ADHP need is there, viable, and acceptable for providing health care as defined by the ADHP model.
Please visit this link for publication: www.nyu.edu/dental/nexus/index.html

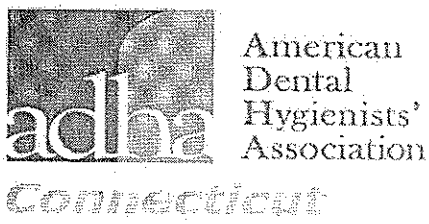
The American Dental Association Commission on Dental Accreditation (CODA) currently does not accredit mid-level dental provider programs. When a new practitioner is developed, such as the ADHP, accreditation agencies wait until the first education programs have been established and the first graduates enter practice before they establish accreditation standards. CODA has granted a request concluding that the University of Minnesota had supplied sufficient documentation and evidence to show that each of the "Principles and Criteria-Eligibility of Allied Dental Programs for Accreditation by the Commission on Dental Accreditation" was met. These recent actions demonstrate the value CODA sees in accrediting a new discipline. The **September 2011 issue of Dimensions of Dental Hygiene, NEWS,** pg 16 "Standards Proposed for Dental Therapy Education Programs" ...
Please visit: **http://www.dimensionsofdentalhygiene.com/ddhright.aspx?id=11512**

The Pew and Kellogg reports support ADHP as a beneficial model to deliver dental care. As licensed, registered dental hygienists we treat and refer daily, as per our licensure. Dental Hygienists can expose and read radiographs. The proposed education would increase the diagnostic ability and knowledge of the ADHP. To avert negative outcomes, as the dental hygienist currently does, the ADHP in the future will assess and refer when needed.

In 2010, the W.K. Kellogg Foundation revealed the results of an intensive two-year study on dental mid-level providers in Alaska in their report, *"Evaluation of the Dental Health Aide Therapist Workforce Model in Alaska"*. The report demonstrated these new mid-level providers effectively improved access to care and that educated non-dentist providers can safely administer restorative services.

The ADHP master's education program will be taught in an institution accredited by the State of Connecticut Board of Regents. Connecticut Board of Regents is responsible for initial and continuing review and approval of all institutions and programs of higher learning operating in the State of Connecticut. Competency assurance will be acquired through assessment and evaluations. Graduates of the Master's program in advanced dental hygiene will have demonstrated competency, through successful completion of the advanced dental hygiene education program and passage of examinations. It is envisioned that applicants will be issued an Advanced Dental Hygiene Practitioner (ADHP) endorsement to their current dental hygiene license. The ADHP endorsement will be subject for renewal each licensure period. Applicants for renewal of the ADHP endorsement will be required to complete additional continuing education coursework prior to renewal.





ORIGIN OF DENTAL HYGIENE 1913

CONNECTICUT DENTAL HYGIENISTS' ASSOCIATION, INC.
ADVOCATES FOR ORAL HEALTH MANAGEMENT

The salaries for ADHPs although not yet known, would be more than that of a dental hygienists current compensation, as stated by CSDA. However, the point is an ADHP would be compensated at the rate much lower than that of a dentist. ADHP would not replace the dental hygienists working in public health, they would augment that system. The ADHP would allow a savings over some of the dentist's billable time. This is projected to be a savings between 20 – 30 dollars per hour. The oral health team would stay intact, adding a mid-level provider between the dentist and the dental hygienist would allow for cost savings. These cost savings would be similar to those proven between the mid-level APRN and the MD in medicine.

CSDA can let go of the concern that tuition to obtain an ADHP education would be prohibitive. This is a Master's degree program like any other and would have the same type cost and benefits. People value education and license and it is an individual choice to continue your education, as many hygienists have done.

We agree with CSDA, Connecticut residents do deserve safe and high quality dental services, with the assurance that the practitioner is properly and fully educated, trained and competent. By adding another step in the available ladder of the dental profession, the ADHP will provide the public with the ability to access better comprehensive care. The ADHP will work as part of an interdisciplinary health team, in collaboration with dentists, dental hygienists, dental assistants and other health care professionals to deliver care. The ADHP will not replace any member of the dental team; instead the ADHP will supplement the ability of the existing dental workforce to reach patients currently disenfranchised from the oral health care delivery system.

The ADHP mid-level provider could save money in many ways.

- midlevel providers will cost less to employ then a dentist
- dentists typically don't work for the lower salary offered by public health facilities
    - another reason for a mid-level provider
- the dentists who do - will have more time to address the more complex dental care needed
    - thereby increasing access

CDHA would invite CSDA (as we have since 2004) to join us and support the formation of a committee for further discussion toward mutual consensus and exploration of a mid-level provider.

Thank you for the opportunity to respond to the concerns rose in opposition to CDHA's ADHP proposal. The master's level, ADHP model is evidence-based and offers a comprehensive, safe and cost effective approach to increasing access for care for Connecticut's underserved.

Sincerely,

Connecticut Dental Hygienists' Association

Impact Statement- Advanced Dental Hygiene Practitioner

A plain language description of the request:

The Connecticut Society of Pediatric Dentists requests that the state of Connecticut maintain the current dental hygiene scope of practice. The proposed scope of practice change for the Advanced Dental Hygiene Practitioner (ADHP) as submitted by the Connecticut Dental Hygiene Association is impractical and contrary to the goal of creating access to the full range of dental services to vulnerable populations within the state of Connecticut. The current scope of practice better maintains the integrity of dental services by requiring the supervision of a licensed dentist for licensed dental hygienists. Potential harm to the populace should the ADHP model be implemented includes:

- Reduced access to the full range of dental services available in a dental office
- A two tier system of care, whereby the most vulnerable among the population (and also those most at risk for dental disease) receive limited dental services provided by a less-well trained provider and those who are able to afford a higher quality of care receiving the full range of services provided by a licensed dentist
- The possibility of medical harm when services are provided by an ADHP who may encounter medical complications for which they are neither trained nor prepared to deal with

The Connecticut Society of Pediatric Dentists believes that all Americans deserve access to quality oral health care that is provided by fully educated and trained dentists and the teams that support them.

Public health and safety benefits that the requestor believes will be achieved should the request be implemented and, if applicable, a description of any harm to public health and safety should the request not be implemented:

Research indicates that the oral health care of children is best managed within the context of a dental office, or "dental home". According to the AAPD Policy statement on Dental Home, "The dental home is inclusive of all aspects of oral health that result from the interaction of the patient, parents, non-dental professionals, and dental professionals. Establishment of the dental home is initiated by the identification and interaction of these individuals, resulting in a heightened awareness of all issues impacting the patient's oral health."[i] A Dental Home:

- Is an ongoing relationship between the patient and the dentist or dental team that is coordinated/supervised by a dentist
- Provides comprehensive, coordinated, oral health care that is continuously accessible and family-centered.
- Is an approach to assuring that all children have access to preventative and restorative oral health care.

The need for dental services to be conducted within the context of a dental home is highlighted by Casamassimo and Nowak (2002), "Children who have a dental home are more likely to

receive appropriate preventive and routine oral health care. Referral by the primary care physician or health provider has been recommended, based on risk assessment, as early as 6 months of age, 6 months after the first tooth erupts, and no later than 12 months of age. Furthermore, subsequent periodicity of reappointment is based upon risk assessment. This provides time-critical opportunities to implement preventive health practices and reduce the child's risk of preventable dental/oral disease."[ii] Removing the dental hygienists from the dental home, as requested by the CT Dental Hygiene Association, will compromise the availability of the full range of services required for optimal oral care.

Additionally, the ADHP, as envisioned by the American Dental Hygiene Association and the CT Dental Hygiene Association does not call for adequate education or training to prepare a hygienist to safely practice dentistry of the highest quality. It is a model which would allow a dental hygienist with a Master's degree education to practice dentistry without the benefit of the full range of educational experiences required for dentist licensure. Allowing the dental hygienist to practice without the supervision of a dentist (the model calls for a "collaborative management agreement) increases the possibility of the dental hygienist conducting procedures beyond his/her skill and education level, elevating the risk medical harm.

The impact that the request will have on public access to health care:

Should the Advanced Dental Hygiene Practitioner scope of practice request that was submitted by the Connecticut Dental Hygiene Association be enacted, public access to oral care would be diminished. Research indicates that, when the independent practice of dental hygiene is allowed, vulnerable populations, such as those enrolled in public insurance programs have decreased access to the full range of dental services provided in a dental home. This point is explicitly outlined in a 2007 Technical Issue Brief issued by the MCHB National Oral Health Policy Center which states, "Although such approaches have the potential to facilitate children's access to Medicaid dental services, they do not -- in and of themselves -- meet the definition of dental services or the comprehensive services requirements stipulated in EPSDT service statutes."[iii]

When hygiene services are performed outside the context of a dental home and without the supervision of a dentist, according to Schneider, et al (2007), "Such models may, in fact, be counterproductive if they alienate dentists currently participating in Medicaid or become barriers to recruitment of additional dentists. Common sources of frustration with respect to alternative models for dentists who participate in Medicaid generally stem from interruption in patient-provider relationships and duplication of services, which sometimes results in denial of payment for services."[iv]

Currently, Connecticut citizens enjoy a high degree of access to dental services. According to a Press Release released by the CT Department of Public Health, children in Connecticut were less likely to have decay than other states, as evidenced by an open-mouth basic screening survey of Head Start, kindergarten and third grade children in the state during the 2006-2007 school year[v] For older adults in Connecticut, "dental care for older adults is available in private dental practices, in primary care settings such as community health centers, community adult dental centers and hospital clinics. To a limited extent, dental facilities are also available within nursing homes. However, many older adults are not aware of where or how to access dental

services in their community."[vi] Even so, adults in CT access dental care at a higher rate that all other states. According to the CDC, in 2008, 78.6% of adults age 18+ have visited a dental office or dental clinic in the past year, compared to 68.5% nationally. CT had the highest percentage of adults reporting a dental visit in the past year in the country.[vii]

Additionally, many of CT's dentists participate in the Medicaid system. According to the Synopsis of State and Territorial Dental Public Health Programs by state, CT has no counties in the state that do not have a Medicaid-enrolled dentist. In fact, every county in CT has a dentist who saw at least 50 beneficiaries under the age of 21.[viii]

Total of county population without a dentist.		0
	Total population of counties in state without an enrolled Medicaid dentist	0
	Number of counties in state without an enrolled Medicaid dentist	0
	Number of counties in state without Medicaid billing dentist who saw 50+ beneficiaries under age 21	0

Currently, in CT[ix]:

- More than 1,000 dental providers actively participating in the Partnership – a gain of more than 800 providers.
- Nearly 73,000 children are now receiving dental care through the Dental Health Partnership, a 60% increase since the program's inception.
- Since September 2008, dentists provided nearly $23.75 million in care to children in the Partnership program.

The access currently enjoyed by Medicaid recipients in Connecticut – amongst the best in the nation – could be compromised by the implementation of the ADHP model. Therefore, it is critical, for the benefit of the public that the model not be implemented. An alternative model, identified in a separate impact statement submitted by the Connecticut Society of Pediatric Dentists, the change in dental assisting scope of practice to include the Expanded Function Dental Auxiliaries, allows for provide for the education, training, and certification of an Expanded Functions Dental Auxiliary (EFDA). An EFDA is a highly trained and skilled dental assistant or dental hygienist who receives additional education to enable them to perform reversible, intraoral procedures, and additional tasks (expanded duties or extended duties), services or capacities, often including direct patient care services, which may be legally delegated by a licensed dentist under the supervision of a licensed dentist. The EFDA practices under the supervision of a licensed dentist. Connection to the dental home ensures that individuals will have access to comprehensive care, including restorative services to eliminate pain and restore function. This model also allows for provision of preventive oral health education by EFDAs and preventive oral health services by a dental hygienist under general supervision (ie, without the presence of the supervising dentist in the treatment facility) following the examination, diagnosis, and treatment plan by the licensed, supervising dentist.

A brief summary of state or federal laws that govern the health care profession making the request:

The registered Dental Hygienist (RDH) is an oral health professional licensed in each state. Licensing requirements and scope of practice for the licensed registered dental hygienist in CT is outlined in Chapter 379a of the CT General Statutes, CGS, which stipulates that in order to qualify for dental hygiene licensure in CT, which states:

> Each application for a license to practice dental hygiene shall be in writing and signed by the applicant and accompanied by satisfactory proof that such person has received a diploma or certificate of graduation from a dental hygiene program with a minimum of two academic years of curriculum provided in a college or institution of higher education the program of which is accredited by the Commission on Dental Accreditation or such other national professional accrediting body as may be recognized by the United States Department of Education, and a fee of one hundred fifty dollars.
>
> The "practice of dental hygiene" means the performance of educational, preventive and therapeutic services including: Complete prophylaxis; the removal of calcerous deposits, accretions and stains from the supragingival and subgingival surfaces of the teeth by scaling, root planing and polishing; the application of pit and fissure sealants and topical solutions to exposed portions of the teeth; dental hygiene examinations and the charting of oral conditions; dental hygiene assessment, treatment planning and evaluation; the administration of local anesthesia in accordance with the provisions of subsection (d) of this section; and collaboration in the implementation of the oral health care regimen. (b) No person shall engage in the practice of dental hygiene unless such person (1) has a dental hygiene license issued by the Department of Public Health and (A) is practicing under the general supervision of a licensed dentist, or (B) has been practicing as licensed dental hygienist for at least two years, is practicing in a public health facility and complies with the requirements of subsection (e) of this section, or (2) has a dental license.[x]

The state's current regulatory oversight of the health care profession making the request:

The dentist is a licensed professional and practices under the regulations set forth in the Connecticut State Statutes pertaining to Dentistry; Chapter 379a.

The department regulates access to the health care professions as well as community-based and environmental providers, and provides regulatory oversight of health care facilities, drinking water systems, and other services.

All current education, training and examination requirements and any relevant certification requirements applicable to the health care profession making the request:

Currently, CT General Statutes Chapter 397 Sec. 20-126i states: Application for license. (a) Each application for a license to practice dental hygiene shall be in writing and signed by the applicant and accompanied by satisfactory proof that such person has received a diploma or

certificate of graduation from a dental hygiene program with a minimum of two academic years of curriculum provided in a college or institution of higher education the program of which is accredited by the Commission on Dental Accreditation or such other national professional accrediting body as may be recognized by the United States Department of Education, and a fee of one hundred fifty dollars.[xi]

The ADHP, as envisioned by the American Dental Hygiene Association and the CT Dental Hygiene Association does not call for adequate education or training to prepare a hygienist to safely practice dentistry of the highest quality. It is a model which would allow a dental hygienist with a Master's degree education to practice dentistry without the benefit of a dental school degree, and without the supervision of a dentist (the model calls for a "collaborative management agreement). All of these duties will be permitted to be done on the most medically and/or behaviorally complicated members of our society with NO direct supervision. A Master's level education is simply not adequate to ensure the highest quality of dental care and patient safety.

In contrast, in addition to a college education, dental students spend 4 years learning the biological principles, diagnostic skills, and clinical techniques to distinguish between health and disease and to manage oral conditions while taking into consideration a patient's general health and well-being. The clinical care they provide during their doctoral education is under direct supervision. Those who specialize in pediatric dentistry must spend an additional 24 or more months in a full time post-doctoral program that provides advanced didactic and clinical experiences.[xii] The skills that pediatric dentists develop are applied to the needs of children through their ever-changing stages of dental, physical, and psychosocial development, treating conditions and diseases unique to growing individuals.

A summary of known scope of practice changes either requested or enacted concerning the health care profession in the five-year period preceding the date of this request:

HB5616, "An Act Concerning An Advanced Dental Hygiene Practice Pilot Program" was introduced in 2011 was the most recent iteration of many attempts to establish an advanced dental hygiene practitioner. This Act made it out of the Human Services Committee but went no further. In previous years attempts were made through the Public Health Committee and no progress was made through that Committee.

The extent to which the request directly impacts existing relationships within the health care delivery system:

Implementing the Scope of Practice change as requested by the CDHA would negatively impact the working relationship of the dental TEAM. Independent hygienists would be competing for patients without being able to provide the full range of dental services that are typically delivered in the dental office. Individuals who utilize these ADHPs may find themselves with compromised access to the dentist due to the lack of coordination of services inherent when dental hygienists are allowed to practice and bill for services without the benefit of a supervising dentist. As described above, this provision of services may result in frustrations due to an

interruption in the patient-dentist relationship and in frustration over declined reimbursement due to duplicate billing.

The anticipated economic impact of the request on the health care delivery system:

It is anticipated that the ADHP model, as proposed by the CDHA would have a negative economic impact on the health care delivery system. CT currently enjoys a high degree of access to dental services provided by dentists as evidenced by the following:

- There are no counties within the state that do not have a Medicaid-participating dentist. Additionally, all counties in the state have a dentist who is actively serving more than 50 Medicaid recipients.
- According to the CDC, CT had the highest percentage of adults reporting a dental visit in the past year in the country.
- According to the Connecticut Department of Social Services in their written testimony HB 5616 in 2011, "the Department feels very strongly that access is no longer as great a concern as they once were. Our Dental Health Partnership (formally known as Husky) has made great strides over the last few years in increasing participation and pairing recipients with providers."
- CT was one of 7 states to receive a grade of A by the PEW Center for the states in its annual "State of Children's Dental Health" report. CT received this award in both 2010 and 2011.[xiii]

The financial investment in the ADHP would be substantial. Based on financial information from Fones School of Dental Hygiene in Bridgeport the student would have to spend approximately $135,000-$150,000 in order to obtain the Master's-level education outlined by the CDHA request. These new providers, should they be enabled to practice independently, would have overhead and operating costs on par with dentists, limiting their ability to provide services to individuals that could not otherwise afford dental care. There is no evidence to support the financial efficacy of an independent hygiene practice.

The substantial financial investment of implementing the ADHP program combined with the limited opportunity for increasing access to dental services in CT would lead to the conclusion that implementing the scope of practice change would have negative economic implications.

Regional and national trends concerning licensure of the health care profession making the request and a summary of relevant scope of practice provisions enacted in other states:

Each state enacts its own laws determining the licensing and scope of practice guidelines for the practice of dental hygiene. While some states have enacted legislation allowing for some level of independent hygiene practice, no state to date has allowed for the ADHP model as proposed by the CT Dental Hygienists Association. The majority of states that allow services to be performed outside the dentist office by dental hygienists limit these services to preventive oral

health care, such as hygiene instruction and the administration of fluoride varnish and dental sealants – 35 states fall into this category.

In all existing and proposed non-dentist provider models, the clinician receives abbreviated levels of education compared to the educational requirements of a dentist. For example, the dental health aid therapist model in Alaska is a 2 year certificate program with a pre-requisite high school education, the educational requirement for licensure as a dental therapist in Minnesota is a baccalaureate or master's degree from a dental therapy program, and proposed legislation for dental therapists in Vermont requires a 2 year curriculum including at least 100hours of dental therapy clinical practice under the general supervision of a licensed dentist. [xiv] There is no evidence to suggest that they deliver any expertise comparable to a dentist in the fields of diagnosis, pathology, trauma care, pharmacology, behavioral guidance, treatment plan development, and care of special needs patients. I

According to Casamassimo (2011):

> True, there are examples of dental therapists worldwide, but no real evidence of its applicability in a country with a third of a billion people, a highly developed, overwhelmingly dominant private practice-based dental care system, an extremely high standard of care, expectations of the populace across all socioeconomic strata for a singular high quality of care, a dental education system hard-pressed to either finance and repopulate itself, and a dental public health infrastructure in significant decline with little hope of salvation on the horizon.[xv]

In fact, The Institute of Medicine (IOM) released two reports on oral health this summer. Neither endorsed the mid-level provider.

Identification of any health care professions that can reasonably be anticipated to be directly impacted by the request, the nature of the impact and efforts made by the requestor to discuss the request with such health care professions:

The professions directly impacted would be Dental Assistants, Dental Hygienists and Dentists.

A description of how the request relates to the health care profession's ability to practice to the full extent of the profession's education and training:

The current scope of practice for the practice of dental hygiene as outlined in CT General Statutes, Chapter 397 allows Dental Hygienists to practice to the full extent of the professions education and training. Expanding that scope of practice would extend the practice of dental hygiene beyond the level of education and training necessary to attain that licensure.

The ADHP is a model which would allow a dental hygienist with a Master's degree to practice The ADHP would among other competencies be allowed to perform irreversible surgical procedures without the supervision of a dentist (the model calls for a "collaborative management agreement). According to the CDHA proposal, the ADHP would serve the most medically and/or behaviorally complicated members of our society with NO direct supervision. A Master's level education is simply not adequate to ensure the highest quality of dental care and patient safety.

Sincerely,

Douglas B. Keck, DMD, MSHEd
Representative of the Connecticut Society of Pediatric Dentists

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[xii] American Dental Association Commission on Dental Accreditation. Accreditation Standards for Advanced Specialty Education Programs in Pediatric Dentistry. 1998;23. Available at: http://www.ada.org/sections/educationAndCareers/pdfs/ped.pdf'. Accessed March 13, 2011.

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[xiv] American Academy of Pediatric Dentistry. Policy on workforce issues and delivery of oral health care services in a dental home. Adopted 2011. http://www.aapd.org/media/Policies_Guidelines/P_WorkforceIssues.pdf. Accessed 9-27-2011.

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Appendix E

CHAPTER 379a
DENTAL HYGIENISTS

Sec. 20-126h. License. No person shall engage in the practice of dental hygiene unless he has obtained a dental or dental hygiene license issued by the department of public health.

Sec. 20-126i. Application for license. (a) Each application for a license to practice dental hygiene shall be in writing and signed by the applicant and accompanied by satisfactory proof that such person has received a diploma or certificate of graduation from a dental hygiene program with a minimum of two academic years of curriculum provided in a college or institution of higher education the program of which is accredited by the Commission on Dental Accreditation or such other national professional accrediting body as may be recognized by the United States Department of Education, and a fee of one hundred fifty dollars.

(b) Notwithstanding the provisions of subsection (a) of this section, each application for a license to practice dental hygiene from an applicant who holds a diploma from a foreign dental school shall be in writing and signed by the applicant and accompanied by satisfactory proof that such person has (1) graduated from a dental school located outside the United States and received the degree of doctor of dental medicine or surgery, or its equivalent; (2) passed the written and practical examinations required in section 20-126j; and (3) enrolled in a dental hygiene program in this state that is accredited by the Commission on Dental Accreditation or its successor organization and successfully completed not less than one year of clinical training in a community health center affiliated with and under the supervision of such dental hygiene program.

Sec. 20-126j. Examination of applicants. Except as provided in section 20-126k, each applicant for a license to practice dental hygiene shall be examined through written and practical examinations by the department of public health, as to his professional knowledge and skill before such license is granted. All examinations shall be given at least once per year and at other times prescribed by the department. Such examination shall be conducted in the English language. The commissioner of public health may accept and approve, in lieu of the written examination required in this section, the results of a written examination given by the Joint Commission on National Dental Examinations or comparable national examinations subject to such conditions as said commissioner may prescribe; and said commissioner may accept and approve, in lieu of the practical examination required in this section, the results of practical examinations given by regional testing agencies subject to such conditions as the department of public health may prescribe. Passing scores shall be prescribed by the department of public health. Said department shall grant licenses to such applicants as are qualified.

Sec. 20-126k. Licensure without examination. The department of public health may, without examination, issue a license to any dental hygienist who has provided evidence of professional education not less than that required in this state and who is licensed in some other state or territory, if such other state or territory has requirements of admission determined by the department to be similar to or higher than the requirements of this state, upon certification from the board of examiners or like board of the state or territory in which such dental hygienist was a practitioner certifying to his competency and upon payment of a fee of one hundred fifty dollars to said department. No license shall be issued under this section to any applicant against whom professional disciplinary action is pending or who is the subject of an unresolved complaint.

Sec. 20-126l. Definitions. Scope of practice. Limitations. Continuing education.
(a) As used in this section:

(1) "General supervision of a licensed dentist" means supervision that authorizes dental hygiene procedures to be performed with the knowledge of said licensed dentist, whether or not the dentist is on the premises when such procedures are being performed;

(2) "Public health facility" means an institution, as defined in section 19a-490, a community health center, a group home or a school, a school, a preschool operated by a local or regional board of education or a head start program; and

(a) The "practice of dental hygiene" means the performance of educational, preventive and therapeutic services including: Complete prophylaxis; the removal of calcerous deposits, accretions and stains from the supragingival and subgingival surfaces of the teeth by scaling, root planing and polishing; the application of pit and fissure sealants and topical solutions to exposed portions of the teeth; dental hygiene examinations and the charting of oral conditions; dental hygiene assessment, treatment planning and evaluation; the administration of local anesthesia in accordance with the provisions of subsection (d) of this section; and collaboration in the implementation of the oral health care regimen.

(b) No person shall engage in the practice of dental hygiene unless such person (1) has a dental hygiene license issued by the Department of Public Health and (A) is practicing under the general supervision of a licensed dentist, or (B) has been practicing as licensed dental hygienist for at least two years, is practicing in a public health facility and complies with the requirements of subsection (e) of this section, or (2) has a dental license.

(c) A dental hygienist licensed under sections 20-126h to 20-126w, inclusive, shall be known as a "dental hygienist" and no other person shall assume such title or use the abbreviation "R.D.H." or any other words, letters or figures which indicate that the person using such words, letters or figures is a licensed dental hygienist. Any person who employs or permits any other person except a licensed dental hygienist to practice dental hygiene shall be subject to the penalties provided in section 20-126t.

(d) A licensed dental hygienist may administer local anesthesia, limited to infiltration and mandibular blocks, under the indirect supervision of a licensed dentist, provided the dental hygienist can demonstrate successful completion of a course of instruction containing basic and current concepts of local anesthesia and pain control in a program accredited by the Commission on Dental Accreditation, or its successor organization, that includes: (1) Twenty hours of didactic training, including, but not limited to, the psychology of pain management; a review of anatomy, physiology, pharmacology of anesthetic agents, emergency precautions and management, and client management; instruction on the safe and effective administration of anesthetic agents; and (2) eight hours of clinical training which includes the direct observation of the performance of procedures. For purposes of this subsection, "indirect supervision" means a licensed dentist authorizes and prescribes the use of local anesthesia for a patient and remains in the dental office or other location where the services are being performed by the dental hygienist.

(e) A licensed dental hygienist shall in no event perform the following dental services: (1) Diagnosis for dental procedures or dental treatment; (2) the cutting or removal of any hard or soft tissue or suturing; (3) the prescribing of drugs or medication which require the written or oral order of a licensed dentist or physician; (4) the administration of parenteral, inhalation or general anesthetic agents in connection with any dental operative procedure; (5) the taking of any impression of the teeth or jaws or the relationship of the teeth or jaws for the purpose of fabricating any appliance or prosthesis; (6) the placing, finishing and adjustment of temporary or final restorations, capping materials and cement bases.

(f) Each dental hygienist practicing in a public health facility shall (1) refer for treatment any patient with needs outside the dental hygienist's scope of practice, and (2) coordinate such referral for treatment to dentists licensed pursuant to chapter 379.

(g) All licensed dental hygienists applying for license renewal shall be required to participate in continuing education programs. The commissioner shall adopt regulations in accordance with the provisions of chapter 54 to: (1) Define basic requirements for continuing education programs, (2) delineate qualifying programs, (3) establish a system of control and reporting, and (4) provide for waiver of the continuing education requirement by the commissioner for good cause.

Sec. 20-126m. Display of license. The license for the current year shall be displayed conspicuously in the office, place of business or place of employment of each licensee. Each licensed dental hygienist shall forthwith notify the department of any change of address or employment subsequent to his licensure.

Sec. 20-126n. License renewal. Licenses issued under sections 20-126h to 20-126w, inclusive, shall be renewed annually in accordance with the provisions of section 19a-88.

Sec. 20-126o. Disciplinary action by the department. (a) The department of public health may take any of the actions set forth in section 19a-17 of the 2008 supplement to the general statutesfor any of the following causes: (1) The presentation to the department of any diploma, license or certificate illegally or fraudulently obtained, or obtained from an institution that is not accredited or from an unrecognized or irregular institution or state board, or obtained by the practice of any fraud or deception; (2) illegal conduct; (3) negligent, incompetent or wrongful conduct in professional activities; (4) conviction of the violation of any of the provisions of sections 20-126h to 20-126w, inclusive, by any court of criminal jurisdiction; (5) the violation of any of the provisions of said sections or of the regulations adopted hereunder or the refusal to comply with any of said provisions or regulations; (6) the aiding or abetting in the practice of dental hygiene of a person not licensed to practice dental hygiene in this state; (7) engaging in fraud or material deception in the course of professional activities; (8) the effects of physical or mental illness, emotional disorder or loss of motor skill, including but not limited to, deterioration through the aging process, upon the license holder; (9) abuse or excessive use of drugs, including alcohol, narcotics or chemicals; or failure to provide information to the Department of Public Health required to complete a health care provider profile, as se forth in section20-13j, as amended by public act 08-109. A violation of any of the provisions of sections 20-126h to 20-126w, inclusive, by any unlicensed employee in the practice of dental hygiene, with the knowledge of his employer, shall be deemed a violation thereof by his employer. The commissioner of public health may order a license holder to submit to a reasonable physical or mental examination if his physical or mental capacity to practice safely is the subject of an investigation. Said commissioner may petition the superior court for the judicial district of Hartford to enforce such order or any action taken pursuant to said section 19a-17 of the 2008 supplement to the general statutes.

(b) For purposes of subdivision (7) of subsection (a) of this section, fraud or material deception shall include, but not be limited to, the following practices: (1) Submission of a claim form to a third party intentionally reporting incorrect treatment dates for the purpose of assisting a patient in obtaining benefits under a dental plan, which benefits would otherwise be disallowed; (2) increasing a fee to a patient for a service in excess of the fee charged solely because the patient has dental insurance; (3) intentionally describing a dental hygiene procedure incorrectly on a third-party claim form in order to receive a greater payment or reimbursement or intentionally misrepresenting a dental hygiene procedure not otherwise eligible for payment or reimbursement on such claim form for the purpose of receiving payment or reimbursement; and (4) intentionally accepting payment from a third party as payment in full for patient services rendered when (A) the patient has been excused from payment of any applicable deductible by the license holder and (B) such license holder fails to notify the third party of such action.

Sec. 20-126p. Change of residence out of state. Any licensed dental hygienist changing his residence or place of business to another state shall, upon application to the department of public health, receive a certificate which shall state that he is a licensed dental hygienist and such certificate shall be given without payment of any fee.

Sec. 20-126q. False representations. No person shall falsely claim to hold a certificate of registration, license, diploma or degree granted by a society, school or by the department of public health, or, with intent to deceive the public, pretend to be a graduate of any dental hygiene program or college, or append the letters "R.D.H." to his name, without having the degree indicated by such letters conferred upon him by diploma from a college, a school, a board of examiners, or other agency empowered to confer the same.

Sec. 20-126r. Appeal. Any licensee aggrieved by the action of the department of public health in suspending or revoking any license under the provisions of sections 20-126h to 20-126w, inclusive, may appeal therefrom as provided in section 4-183. Appeals brought under this section shall be privileged with respect to the order of trial assignment.

Sec. 20-126s. Payment for dental hygiene care of patients in chronic and convalescent hospitals and convalescent homes. Payment for dental hygiene care rendered to patients in chronic and convalescent hospitals or convalescent homes shall be made directly to the dental hygienist rendering such care. The commissioner of social services shall not be required to recognize the cost of employing or

contracting with a dental hygienist in the rates established for convalescent homes pursuant to section 17b-340.

Sec. 20-126t. Penalties. Any person who violates any provision of sections 20-126h to 20-126w, inclusive, shall be fined not more than five hundred dollars or imprisoned not more than five years or both. Any person who continues to practice dental hygiene or engage as a dental hygienist, after his license or authority to so do has been suspended or revoked and while such disability continues, shall be fined not more than five hundred dollars or imprisoned not more than five years or both. For purposes of this section each instance of patient contact or consultation which is in violation of any provision of this section shall constitute a separate offense. Failure to renew a license in a timely manner shall not constitute a violation for the purposes of this section.

Sec. 20-126u. Regulations. The commissioner of public health may adopt regulations, in accordance with chapter 54, to implement the provisions of sections 20-126h to 20-126w, inclusive.

Sec. 20-126w. Construction of chapter. Nothing in sections 20-126h to 20-126v, inclusive, shall be construed to (1) allow a dental hygienist to practice beyond the parameters of the general supervision of a licensed dentist, as defined in section 20-1261, as amended by this act, or (2) prevent a licensed dentist from providing dental hygiene services.

Sec. 20-126x. Professional liability insurance required, when. Amount of insurance. Reporting requirements. (a) Each person licensed to practice dental hygiene under the provisions of this chapter who provides direct patient care services shall maintain professional liability insurance or other indemnity against liability for professional malpractice. The amount of insurance that each such person shall carry as insurance or indemnity against claims for injury or death for professional malpractice shall not be less than five hundred thousand dollars for one person, per occurrence, with an aggregate of not less than one million five hundred thousand dollars.

(b) Each insurance company that issues professional liability insurance, as defined in subdivisions (1), (6), (7), (8) and (9) of subsection (b) of section 38a-393 of the general statutes, shall, on and after January 1, 1997, render to the Commissioner of Public health a true record of the names, according to classification, of cancellations of and refusals to renew professional liability insurance policies and the reasons for such cancellations or refusal to renew said policies for the year ending on the thirty-first day of December next preceding.

Regulations of Connecticut State Agencies
Continuing Education Requirements for Annual License Renewal by Dental Hygienists

Sec. 20-111-1. Definitions

For the purpose of these regulations, the following definitions apply.

(a) "Department" means the Department of Health Services.

(b) "Licensee" means a dental hygienist licensed pursuant to Connecticut General Statutes, Section 20-111.

(c) "License renewal due date" means the last day of the month of the licensee's birth.

(d) "Registration period" means the one-year period during which a license which has been renewed in accordance with Connecticut General Statutes, Section 19a-88, is current and valid and which one year period terminates on the license renewal due date.

(e) "Continuing education monitoring period" means a period beginning in an odd-numbered year and consisting of two consecutive registration periods.

(f) "Active practice" means the treatment in Connecticut of one or more patients by a licensee during any given registration period.

(g) "Provider" means the individual, organization, educational institution or other entity conducting the continuing education activity. Providers include but are not limited to: educational institutions accredited by the American Dental Association; the American Dental Association and its component organizations; the National Dental Association and its component organizations; the American Dental Hygienists Association and its component organizations; the National Dental Hygienists Association and its component organizations; the Academy of General Dentistry and its component organizations; the American Red Cross and the American Heart Association when sponsoring programs in cardiopulmonary resuscitation or cardiac life support; and the Veterans Administration and Armed Forces when conducting programs at United States governmental facilities.

(h) "Participant" means a licensee who completes a continuing education activity.

(i) "Contact hour" means a minimum of 50 minutes of continuing education activity.

(j) "Face-to-face instruction" means direct, live instruction which a participant physically attends, either individually or as part of a group of participants.

(k) "Certificate of completion" means a document issued to a participant by a provider which certifies that said participant has successfully completed a continuing education activity. Such certificate shall include: participant's name; provider's name; title or subject area of the activity; date(s) and location of attendance; and number of contact hours completed.

Sec. 20-111-2. Number of credits required

(a) Each licensee shall complete a minimum of 16 credit hours of continuing education during each continuing education monitoring period.

(b) A licensee shall not carry over continuing education credit hours to a subsequent continuing education monitoring period.

Sec. 20-111-3. Criteria for continuing education

Continuing education activities will satisfy the requirements of these regulations, provided:

1) the activity involves face-to-face instruction;
2) the provider implements a mechanism to monitor and document physical attendance at such face-to-face instruction;
3) the provider retains written records for a period of three years including but not limited to: content description; instructor; date(s) of course; location of course; list of participants; and number of contact hours;
4) the provider implements a mechanism to evaluate participants' attainment of educational objectives and participants' assessment of the educational activity;
5) the provider issues a certificate of completion; such certificate may not be issued by the provider prior to the licensee's actual completion of the activity;
6) the activity focuses on content specified in Section 4 of these regulations.

Sec. 20-111-4. Content areas for continuing education

Subject matter for continuing education will reflect the professional needs of the licensee in order to meet the health care needs of the public. Accordingly, only those continuing education activities which provide significant theoretical or practical content directly related to clinical or scientific aspects of dental hygiene will meet the requirements of these regulations. Activities consisting of the following subject matter will not qualify as continuing education activities: organization and design of a dental office, practice development, marketing, investments or financial management, personnel management, or personal health, growth or development when content is designed for personal use as opposed to patient care or patient instruction.

Sec. 20-111-5. Award of credit hours

(a) Continuing education credit hours will be awarded as follows:
  (1) courses, institutes, seminars, programs, clinics, and scientific meetings: 1 credit hour for each contact hour of attendance.
  (2) Multiday convention-type meetings at the state, regional, or national level: 2 credit hours for attendance.
  (3) Full-time post-graduate enrollment in an advanced educational program accredited by the American Dental Association: 16 credit hours in continuing education monitoring period in which enrolled.
  (4) Successful completion of the National Board Dental Hygiene Examination or the North East Regional Board of Dental Examiners Examination in Dental Hygiene, if taken five years or more after graduation from an educational institution teaching dental hygiene which is approved by the dental commission with the consent of the commissioner; 16 credit hours in continuing education monitoring period in which completed.
  (5) Original presentation by licensee of a paper, essay, or formal lecture in dental hygiene to a recognized group of fellow professionals at a scientific meeting: 3 credit hours for the first presentation only.
  (6) Original scientific paper published by licensee in a scientific professional journal which accepts papers only on the basis of independent review by experts: 6 credit hours for the first publication only.
  (7) Original presentation of scientific, educational, or clinical exhibit at a professional meeting: 2 credit hours.

(b) Eight credit hours will be the maximum continuing education credits granted for any one day's participation in the activities specified in Subsection (a), above.

(c) The licensee shall successfully complete a continuing education activity for award of any continuing education credit.

(d) Activities which will not qualify for award of credit hours include professional organizational business meetings; speeches delivered at luncheons or banquets; reading of books, articles, or professional journals; home study courses, correspondence courses, audio-visual materials, and other mechanisms of self-instruction.

Sec. 20-111-6. Record retention by licensees

(a) Each licensee shall obtain a certificate of completion, for those activities properly completed, from the provider of continuing education activities. Each licensee shall maintain, for continued competency activities specified in Subsection (a) (3) through (a) (7) of Section 5 of these regulations, written documentation of completion. The licensee shall retain certificates of completion and other required documentation for a minimum of two years after the end of the continuing education monitoring period during which the licensee completed the activity.

(b) The Department shall audit such licensee records as it deems necessary. The licensee shall submit certificates of completion and other required documentation to the Department only upon the Department's request. The licensee shall submit such records to the Department within 45 days of the Department's request for an audit. It will not be necessary for the licensee to submit such documentation in order to renew the license.

(c) A licensee who fails to comply with the continuing education requirements of these regulations may be subject to disciplinary action, pursuant to Connecticut General Statutes, Section 20-114.

Sec. 20-111-7. Exemption from continuing education requirements

(a) A licensee who is not engaged in active practice during a given continuing education monitoring period shall be exempt from continuing education requirements on submission of a notarized application on a form provided by the Department. The application must contain the statement that the licensee shall

not engage in active practice until the licensee has shown proof of completion of requirements specified in Section 20-111-8 of these regulations.

(b) A licensee applying for license renewal for the first time shall be exempt from continuing education requirements.

Sec. 20-111-8. Requirements for return to active practice following exemption from continuing education requirements

A licensee who has been exempt, pursuant to Subsection (a) of Section 20-111-7 of these regulations, shall submit the following documents upon return to active practice:

(a) a notarized application on a form provided by the Department; and

(b) evidence, acceptable to the Department, of:

1) practice of dental hygiene in another state or territory of the United States, or the District of Columbia, for at least one year immediately preceding the application; or
2) successful completion of the National Board Dental Hygiene Examination or the North East Regional Board of Dental Examiners Examination in Dental Hygiene during the year immediately preceding the application; or
3) completion of 8 credit hours of continuing education within six months after returning to active practice, to be applied to the continuing education monitoring period during which the licensee was exempt from such continuing education requirements.

Sec. 20-111-9. Reinstatement of lapsed licenses

Any licensee whose license has become void and who applies to the Department for reinstatement may apply for licensure under the terms of Sections 19a-14-1 to 19a-14-5, inclusive, of the Regulations of Connecticut State Agencies.

Sec. 20-111-10. Effective date of continuing education requirements

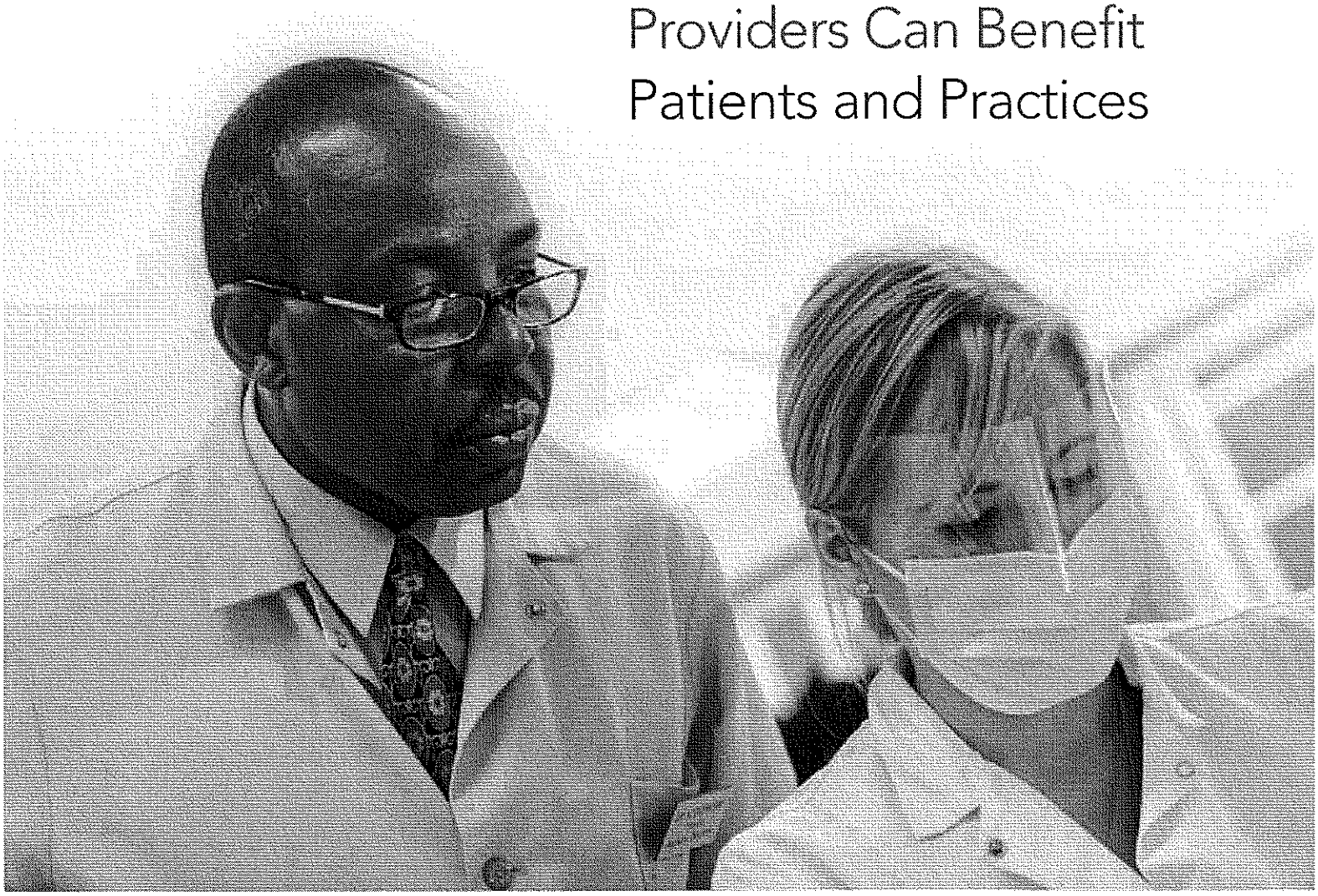
These requirements will be effective for registration periods commencing on and after January 1, 1989.

Appendix F

THE PEW CENTER ON THE STATES

It Takes a Team

How New Dental Providers Can Benefit Patients and Practices



PEW CENTER ON THE STATES | CHILDREN'S DENTAL HEALTH

DECEMBER 2010

The Pew Center on the States is a division of The Pew Charitable Trusts that identifies and advances effective solutions to critical issues facing states. Pew is a nonprofit organization that applies a rigorous, analytical approach to improve public policy, inform the public and stimulate civic life.

The Pew Children's Dental Campaign works to promote policies that will help millions of children maintain healthy teeth, get the care they need and come to school ready to learn.

PEW CENTER ON THE STATES
Susan K. Urahn, managing director

Pew Children's Dental Campaign
Shelly Gehshan, director

Team Members
Andrew Snyder
Matt Jacob
Jennifer V. Doctors
Jessica Chow
Libby Doggett

Publications and Web
Danny Dougherty
Julia Hoppock
Jennifer Peltak
Evan Potler
Carla Uriona

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The calculator used in this report was developed for the Pew Children's Dental Campaign by Scott & Company, Inc., a health care and business management consultancy, principal investigator Mary Kate Scott.

For additional information on Pew and the Children's Dental Campaign, please visit www.pewcenteronthestates.org/dental.

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901 E Street NW, 10th Floor
Washington, DC 20004

2005 Market Street, Suite 1700
Philadelphia, PA 19103

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Introduction

Policy makers in a number of states are considering the creation of new types of licensed professionals who would work with dentists to deliver primary dental care to children and other underserved patients. This report is the first to examine the potential effects of dental therapists and hygienist-therapists—also called allied providers—on the productivity and profits of private dental practices, where 92 percent of the nation's dentists work.[1]

Some dentists are concerned that authorizing new types of dental professionals could negatively affect their businesses. Pew's analysis, however, shows that most private-practice dentists who hire an allied provider can serve more patients while maintaining or improving their financial bottom line. Importantly, most dentists who add a dental therapist or hygienist-therapist to their team can treat more Medicaid enrollees and still preserve or increase their income. Three representative scenarios in the following pages indicate that even practices focused on preventive care could benefit from employing these new allied providers.

States have pressing reasons to find cost-effective ways to expand the patient capacity of the dental health system. Nationwide, 49 million Americans live in areas federally designated as having a shortage of dental providers.[2] Limited access is a particular problem for poor children—17 million of them go without care each year[3]—and is fueled by multiple factors, including low reimbursement rates offered by state Medicaid programs. The imbalance between provider supply and patient demand is likely to increase due to the federal health care reform law enacted in 2010, which will extend dental insurance to an estimated 5.3 million more children by 2014.[4]

Hiring new types of professionals would build on dentists' experience with dental hygienists. Hygienists are employed by most practices and trained to provide a set of preventive services.[5] Dentists have learned that having these practitioners on their team means they can devote more of their time to more sophisticated procedures and enhance their practices' income.

New types of allied providers present dental practices with a similar opportunity. Dental therapists can offer a limited array of restorative services—for example, filling cavities. These practitioners have existed for many years in Great Britain, Canada, New Zealand and other countries, and since 2005 have served in Native Alaskan communities. Hygienist-therapists can be trained to deliver both preventive and restorative care. (See Exhibit 1 on page 7 for a summary of procedures each type of provider could perform.)

As a companion to this report, the Pew Children's Dental Campaign is releasing an economic tool—called the Productivity and Profit Calculator—that evaluates new professionals' impact in the context of real-world dental practices. Policy makers, advocates and dentists can use this calculator to assess the unique variables from their states or communities to better understand the potential effects of adding allied providers to the dental team.

Pew's desire to examine and strengthen the dental workforce is not new. Indeed, from 1985 to 1991, the Pew National Dental Education Program invested $8.75 million in strategic planning and curriculum development for six U.S. dental schools.

State policy changes are essential to ensure that today's unmet need for dental care—and the coming rise in demand created by health care reform—is met by a larger supply of dental professionals. The multiple private-practice scenarios Pew tested demonstrate that states' authorization of allied providers is a sound strategy that can significantly improve access for low-income patients. By employing these new providers, dentists can create a win-win outcome: making sure that coverage will translate to actual dental care without weakening their practices' financial stability.

Key Findings

The three scenarios outlined in this report assess how current and new types of allied providers could change the patient capacity and revenues of private dental practices. These providers include registered dental hygienists and two new types: dental therapists and dental hygienist-therapists.

These scenarios were calculated using the Productivity and Profit Calculator, a financial tool created for Pew by Scott & Company, Inc., a California-based firm that works with organizations interested in developing or assessing new business models in health care. Scott & Company developed the calculator in close consultation with a panel of dentists, dental hygienists and dental office managers.[6]

- **Allied providers can strengthen the productivity and financial stability of dental practices.**

When serving only privately insured patients, all practice types tested—solo pediatric, solo general and small group—increased their productivity and earnings by adding any one of the three allied providers. Solo practices, where most dentists work, saw profit gains of between 17 and 54 percent.

- **Allied providers can help practices treat more Medicaid-insured patients in a financially sustainable way.**

By raising the number of patients served each day, allied providers can make it possible for most existing private practices to care for Medicaid-enrolled patients without sacrificing profitability. This is noteworthy because most dentists do not accept Medicaid patients.[7]

Consider the example of a solo general dental practice in a state with a Medicaid reimbursement rate of 60 percent of a dentist's fees—a rate that is the 50-state average and is widely cited as a practice's overhead costs. (As of 2008, 24 states and the District of Columbia offered reimbursements above 60 percent.) When a dental therapist is added to the team and the practice shifts from treating only the privately insured to a patient mix of 80 percent privately insured and 20 percent Medicaid-enrolled, pre-tax profits increase by 6 percent.

- **Medicaid reimbursement rates play a critical role.**

Reimbursement rates that are set too low discourage dentists' participation in Medicaid and contribute to the access problem for children. As Pew's analysis reveals, inadequate reimbursements also weaken the financial viability of hiring allied providers.

In scenarios using a Medicaid reimbursement rate of 60 percent a solo general dental practice's profits rise when hiring a dental therapist or hygienist-therapist and moving from a patient population that is entirely privately insured to one in which 20 percent of patients are enrolled in Medicaid.

By contrast, in scenarios using a rate of 30 percent (as of 2008, only four states had Medicaid rates paying dentists below 40 percent) the addition of allied providers creates productivity gains but not higher earnings. Yet, even in this case, a solo dental practice seeing more low-income patients performs better financially with an allied provider on the team than without one.

Although raising reimbursement rates is difficult during tight fiscal times, research confirms that doing so is a smart investment that improves access. For example, after Alabama and Tennessee raised their rates, the number of enrollees receiving dental care more than doubled.[8]

- **Fully utilizing allied providers is key to realizing productivity and profit gains.**

Given their large fixed costs, dental practices need to maintain steady, high patient volume to ensure financial viability.[9] In all scenarios tested, hygienist-therapists—the provider with the broadest scope of services among the three types studied—are better able to generate revenue that covers the costs of their employment and benefits the practice's bottom line. (For more details on the provider utilization issue, see "The Utilization Factor" on page 9.)

Gains in productivity and profits are more likely to occur if the dental community and state policy makers ensure that allied providers are seamlessly integrated into existing dental practices. Dental education should train dentists to manage a team of professionals and work efficiently with allied providers. States must review their Medicaid policies to confirm that new types of providers can be properly reimbursed for services they deliver. (For more considerations that policy makers should weigh, see "Policy Implications" on page 16.)

Why Access to Dental Care Matters

Children's dental care—especially in low-income communities—is the most prevalent unmet health need in the United States, and it has real consequences for kids and for our nation.[10] Dental problems cause absences from school, an inability to focus in class, a decline in overall health, worsened job prospects in adulthood, and—in extreme cases—premature death. Moreover, increased demands on public health systems, poor performance in school and lost employee productivity all cost taxpayers in both the short and long terms.[11] For example:

- In a single year, students may miss as many as 51 million hours of school due to dental health problems.[12] In California alone, 504,000 children ages five to 17 were absent at least one school day in 2007 due to a toothache or other dental concern. The state's kids missed a staggering total of 874,000 school days that year due to dental problems.[13]

- A year-long study of five major hospital systems in the Minneapolis-St. Paul area revealed that patients made more than 10,000 emergency room visits for dental problems, such as toothaches or abscesses, at a total cost of more than $4.7 million.[14]

- Individuals who received inadequate dental care as children often miss work to deal with ongoing oral health problems. An estimated 164 million hours of work are missed each year because of dental issues.[15]
- A 2008 study of the armed forces found that 52 percent of new recruits had dental problems that needed urgent attention and would delay overseas deployments.[16]
- Dental problems can hurt a person's ability to find a job. A University of Nebraska study confirmed a widely held but little-discussed prejudice: People who are missing front teeth are seen to be less intelligent and less trustworthy than people without a gap in their smiles.[17]

EDUCATION AND SALARY OF ALLIED PROVIDERS

State policy makers considering new dental workforce models must decide what level of education will be required of allied providers. International experience reveals that two or three years of post-high school training is sufficient to produce practitioners with the necessary skills to deliver quality care.[18]

Given that more education generally results in higher earnings, the Productivity and Profit Calculator uses an allied provider's salary as a proxy for education.[19] When setting education requirements, policy makers should be mindful that practitioners who are required to undergo lengthier periods of training or education generally demand higher salaries. Based on the calculator's analyses, lengthier periods of education will moderately reduce the revenue benefits that dentists would otherwise accrue by hiring new providers.[20]

How the Calculator Tests the Economics of Allied Providers

The Productivity and Profit Calculator is an economic tool that provides information to help dentists and policy makers understand how adding current and new types of allied providers (with distinct scopes of dental practice, levels of training and amounts of supervision) could affect the revenues and productivity of different dental practices.

The calculator is a model that is intended to gauge the direction and magnitude of the gain or loss to earnings and productivity associated with hiring allied providers. It is intended for illustrative purposes only and should not be relied upon as a business-planning tool to forecast actual profit and loss.

Variables also may be adjusted to account for Medicaid participation or to test a provider model that differs from those presented in the dental practice scenarios. (For more information on how the calculator was developed, see "Methodology" on page 18.)

The scenarios start by assessing the impact a practice experiences when hiring a registered dental hygienist. The calculator includes two new types of providers in addition to a registered dental hygienist. The first is the "dental therapist," who would be certified to perform a limited set of preventive and restorative services. The second is the "hygienist-therapist," who would have training necessary for a larger range of restorative and preventive services. These terms reflect the outlines of provider models being explored by states; however, this report is not intended to advocate for a specific type of allied provider. See Exhibit 1, which describes the scope of services performed by each provider.

Exhibit 1

Summary of Dental Procedures Included in the Calculator[21]

Category of Services	Procedures Provided by Dentists and Allied Providers*	Dental Hygienist	Dental Therapist	Hygienist-Therapist	Dentist (Owner or Associate)
Diagnostic	Oral evaluations			●	●
Radiographs/imaging	Panoramic X-ray	●	●	●	●
Preventive	Cleanings	●	●	●	●
	Sealants	●	●	●	●
Restorative	Silver fillings		●	●	●
	Tooth-Colored fillings		●	●	●
	Prefabricated stainless crown		●	●	●
	Temporary filling		●	●	●
	Temporary crown			●	●
	Permanent crown				●
Endodontics	Pulpotomy**		●	●	●
Periodontics	Non-surgical services	●		●	●
Prosthodontics	Complete dentures				●
Extractions	Simple extractions of primary or permanent teeth		●	●	●

Exhibit 1 enumerates the procedures included in the calculator and is not intended as a comprehensive list reflecting the complete scope of care offered by dentists, who may provide other sophisticated procedures, such as root canal therapy or orthodontia.

In practice, allied providers have different scopes of services and go by different names. New providers already are being trained in Minnesota and deployed in parts of Alaska. In 2009, the Minnesota legislature authorized the creation of the bachelor's-level dental therapist and the master's-level advanced dental therapist.[22] In 2005, dental health aide therapists (DHAT) began to be deployed to remote Alaska Native communities. DHATs are trained in a two-year program to provide oral exams and preventive services and to conduct basic restorative services and tooth extraction.[23]

* These are non-technical descriptions of the procedures contained in the calculator. For the technical names of the procedures, as well as the Current Dental Terminology codes they fall under, see Tab 1, "Procedures, Time, Fee" of the Productivity and Profit Calculator.

**A pulpotomy is a procedure for removing infected tissue from a primary tooth.

SOURCE: Pew Center on the States, 2010.

Scenarios

The Productivity and Profit Calculator has been used to determine the impact of adding allied providers on three types of private dental practices:

1. A solo, pediatric dental practice, with a dentist, two dental assistants and administrative support
2. A solo, general practice, with a staff structure similar to type 1 above
3. A small-group practice with a dentist owner, two associate dentists, six dental assistants and administrative support

Each of these scenarios begins with an overview of the practice being tested—its existing staff, annual profits and approximate productivity. In the baseline case, the practices are assumed to have a primarily preventive-diagnostic case mix, and to not serve Medicaid patients. This baseline scenario is then adjusted to reflect the effect of hiring each of the three different allied providers.

A second set of graphs demonstrates the impact of modifying the patient mix from 100 percent privately insured to a combination of 80 percent privately insured and 20 percent Medicaid-enrolled. Most dentists do not accept Medicaid patients, and shifting their practices to include 20 percent Medicaid patients is viewed as a significant yet realistic shift.[24] In addition, these scenarios measure this effect at varying Medicaid reimbursement rates—both with and without the addition of allied providers.

Additional variations on all practice models were tested to capture the effects of reducing utilization (described in "The Utilization Factor" on page 9).

Although these scenarios are intended to represent the majority of dental practices and the better-known new provider types, those who wish to use the calculator to assess their local circumstances can and should alter the model to more closely approximate the existing dental practices in their area and to test providers with differing scopes of practice.

The calculator was developed in consultation with an advisory panel of private-practice dentists. This panel offered input on the assumptions regarding the procedures included in the calculator, the time required to perform each procedure and the costs related to operating a dental practice (wages, supplies and capital expenditures). Taxes are not accounted for in the model.

THE UTILIZATION FACTOR

The utilization rate—the percentage of working hours spent treating patients—is a variable that significantly shapes the financial impact that an allied provider has on a private dental practice. The data presented in the scenarios were generated assuming a utilization rate of 90 percent—which takes into account time spent on lunch, breaks and administrative tasks, leaving 6.12 hours per day for patient care, 244 working days a year. This utilization rate was chosen because it closely reflects the average utilization rate reported by the American Dental Association for general dentists who operate solo practices.[25]

Utilization rates may be lower than 90 percent for several reasons. A new practice may take time to develop a regular stream of patients. Missed appointments may create down-time, and economic slumps may reduce the frequency with which patients seek dental care.

Yet, even when working at less than a 90 percent utilization rate, new types of providers can contribute positive financial benefits to a dental practice. A solo pediatric practice serving only privately insured patients sees a 10 to 35 percent improvement over its baseline profit ($320,593) by hiring any of the three allied providers, even if the new practitioner has only a 75 percent utilization rate and the dentist is busy 90 percent of the time.

The utilization rate becomes more critical when the practice serves Medicaid patients, because Medicaid reimbursements ordinarily are lower than dental practices' usual fees.

States focusing on deploying new allied providers to improve access for Medicaid enrollees must consider methods to help enrollees keep appointments so that dental practices can operate sustainably.

Other scenarios can be tested by adjusting the utilization rates of the dentist and other team members when using the calculator.

Where possible, this information was validated using sources such as the American Dental Association's Survey of Dental Practice. See the "Methodology" section for more details.

The calculator, step-by-step instructions for using it, complete lists of financial data, variables for each scenario and detailed findings are accessible at **www.pewcenteronthestates.org/ittakesateam**.

Impact on a Solo Pediatric Dental Practice

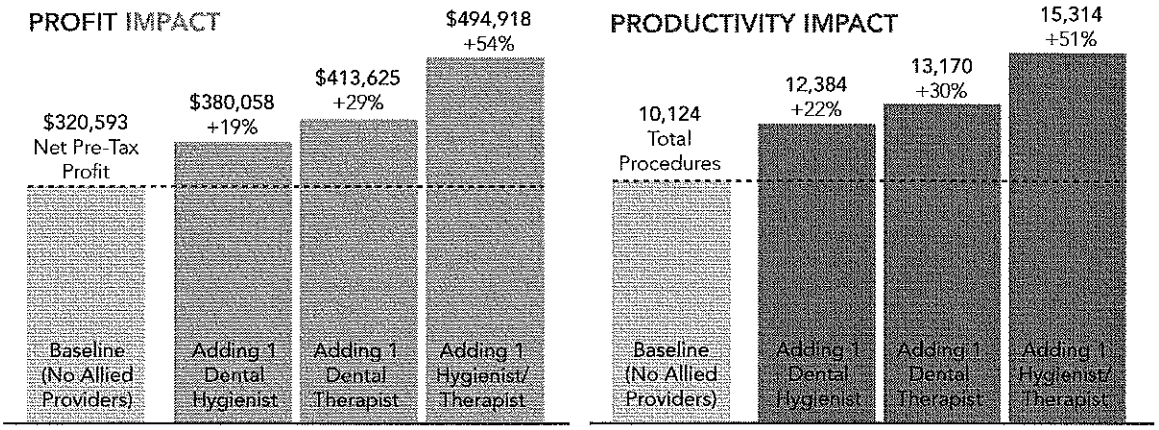
Independent dentists, who run the majority of dental practices in the United States, generally concentrate on providing preventive care and are supported by dental assistants and office staff.[26] The calculator tested the effect of introducing an allied provider into this type of practice. The assessment for this scenario was based on a pediatric dentist with a 2,000-square-foot office and four operatories (rooms with patient chairs), two dental assistants, two support staff and appropriate equipment.

■ This solo pediatric dentist serves the privately insured and generates pre-tax profits of $320,593. The addition of any allied provider yielded higher profits. The practice's earnings rose 19 percent when a dental hygienist was hired, 29 percent when a dental therapist was added and 54 percent when a hygienist-therapist was hired.

■ This practice performs an estimated 10,124 procedures annually, including hygiene, restorative and endodontic procedures. The number of patient-care procedures performed by the practice

Exhibit 2

Allied Providers' Impact on a **Solo Pediatric Dental Practice**



SOURCE: Pew Center on the States, 2010.

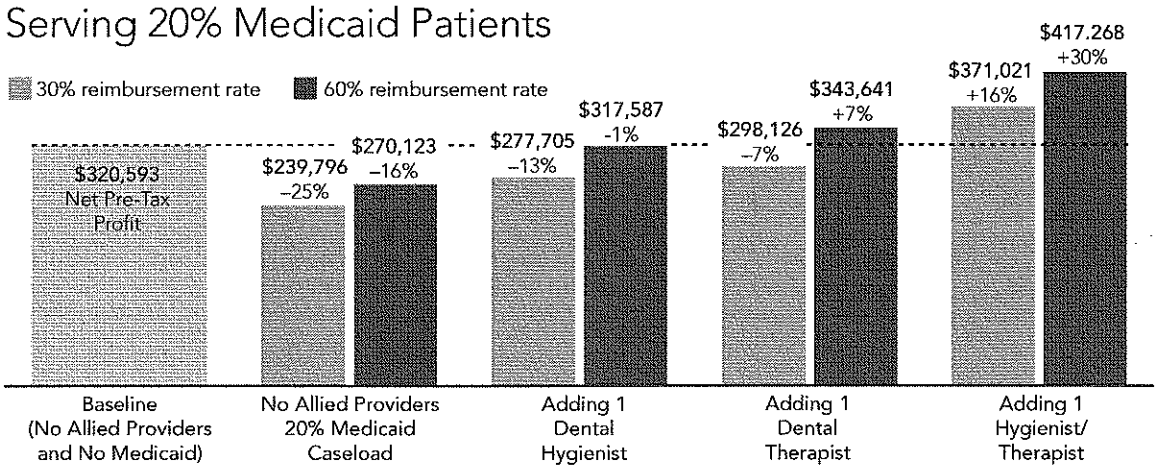
jumped between 22 and 51 percent when a new provider was hired. Notably, the earnings and productivity gains were greater when the allied provider's scope of services was greater (Exhibit 2).

■ Adding a dental therapist or hygienist-therapist, who can perform some restorative procedures, also enables this pediatric practice to devote up to 20 percent of its time to Medicaid-enrolled patients and still increase its income. In this scenario, Medicaid reimbursement rates are assumed to be 60 percent of the practice's usual fees.

■ A Medicaid rate of 30 percent creates a significantly different outcome than a 60 percent rate. Adding a dental therapist to this pediatric practice can increase profits by 7 percent when the reimbursement is higher, but the practice's earnings fall 7 percent with a Medicaid rate of 30 percent.[27] Regardless of the reimbursement rate, a pediatric dentist's solo practice fares much worse financially when serving 20 percent Medicaid-enrolled patients without adding a new provider (Exhibit 3).

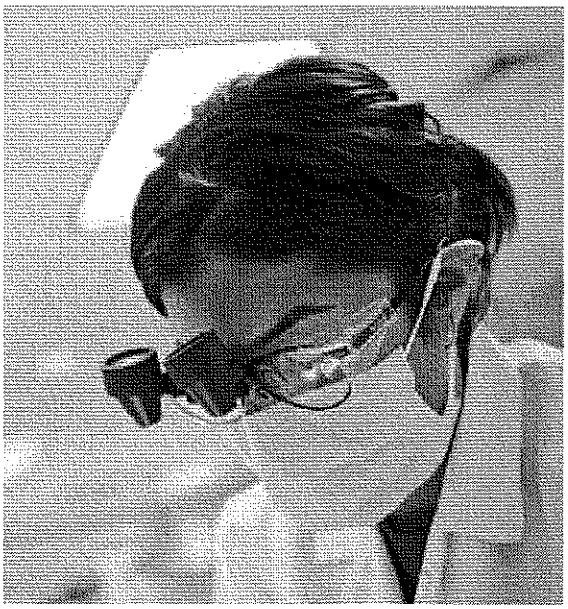
Exhibit 3

Profit Impact on a **Solo Pediatric Dental Practice** Serving 20% Medicaid Patients



SOURCE: Pew Center on the States, 2010.

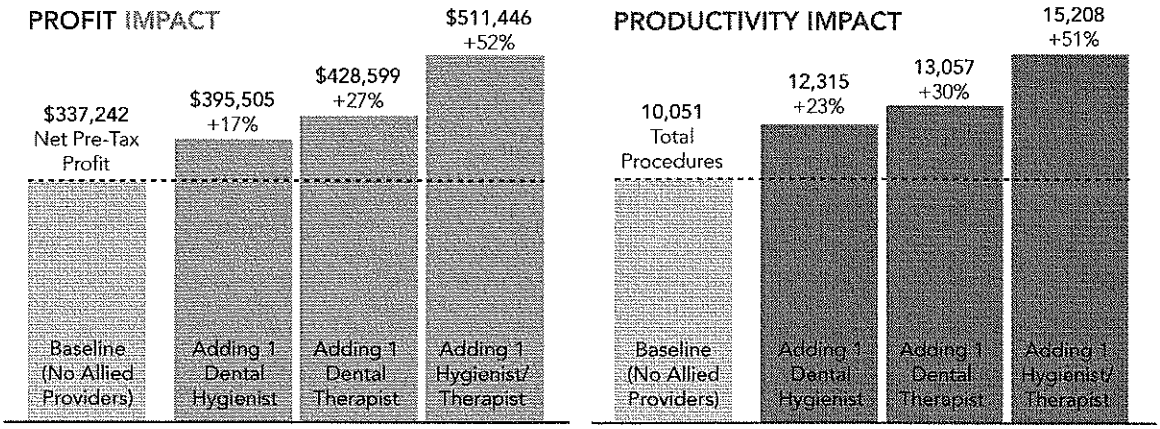
Impact on a Solo General Dental Practice



The second scenario examines a solo general dental practice that serves both adults and children. In general, the findings were very similar to the findings for solo pediatric practices. Operating at 90 percent utilization, this practice saw a profit of about $337,242.

Exhibit 4

Allied Providers' Impact on a Solo General Dental Practice



SOURCE: Pew Center on the States, 2010.

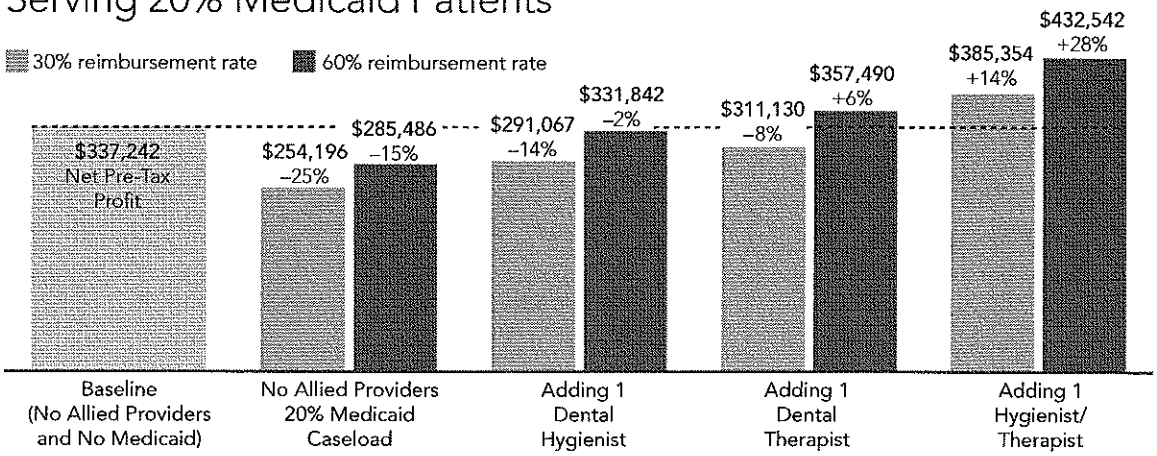
- When adding allied providers to this practice, profits increased 17 percent with a dental hygienist, 27 percent with a dental therapist and 52 percent with a hygienist-therapist (Exhibit 4).

- Hiring a new provider caused this practice's productivity to climb between 23 percent and 51 percent, depending upon the new team member's scope of services (Exhibit 4).

- When the practice's patient mix was modified to include 20 percent Medicaid-enrolled patients, a dental therapist or a hygienist-therapist bolstered the practice's pre-tax profits in three out of the four instances that were tested. These results were similar to those from Scenario 1 (Exhibit 5).

Exhibit 5

Profit Impact on a **Solo General Dental Practice** Serving 20% Medicaid Patients



SOURCE: Pew Center on the States, 2010.

Impact on a Small Group Practice with Associate Dentists

The small group practice is defined as a single owner-dentist with two or more associate dentists. The associate dentists provide the complete set of dental procedures and are compensated at 30 percent of the fees for the procedures they perform. In this scenario, the office is 4,000 square feet with eight operatories and associated equipment, such as additional sterilization equipment, digital cameras, office computers and furniture. The team includes two dental assistants for each dentist and three office support staff.

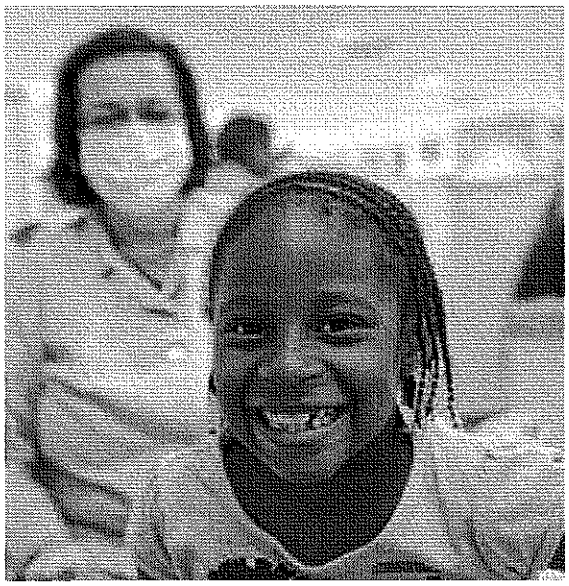
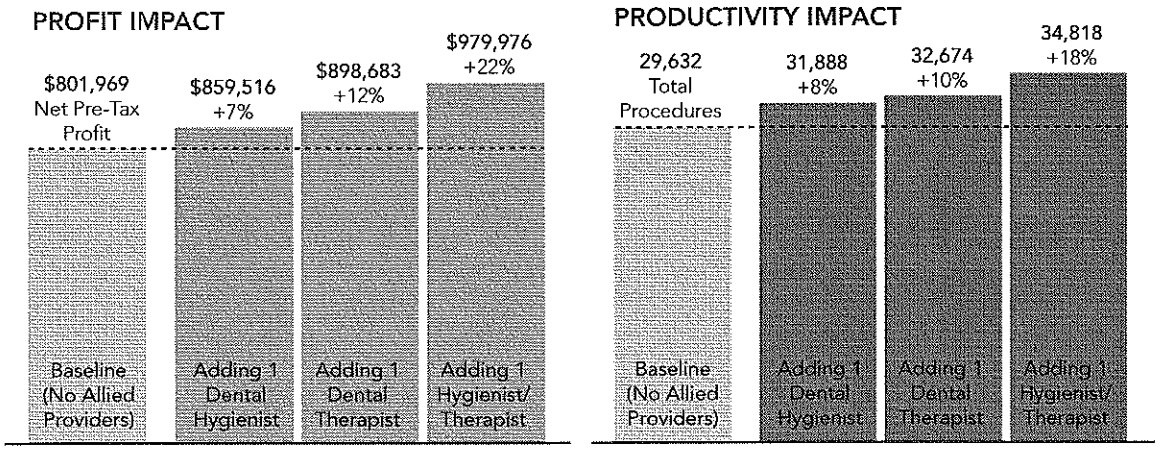


Exhibit 6

Allied Providers' Impact on a **Small Group Dental Practice**



SOURCE: Pew Center on the States, 2010.

■ This practice has an annual pre-tax profit of $801,969 and provides 29,632 procedures per year. Both profits and productivity were enhanced when allied providers were hired by a small group practice whose case mix focuses on the privately insured (Exhibit 6).

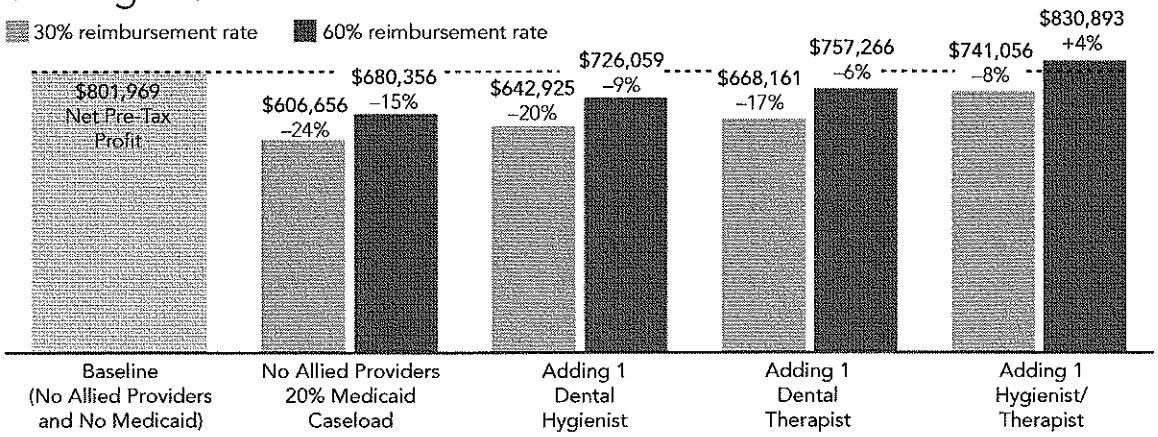
■ When adding allied providers to this practice, profits increased by 7 percent with a dental hygienist, 12 percent with a dental therapist and as high as 22 percent with a hygienist-therapist (Exhibit 6).

■ When one new provider was hired, the practice saw its productivity rise between 8 and 18 percent, depending upon the new team member's scope of services (Exhibit 6).

■ Hiring a new provider and devoting 20 percent of the practice's patient mix to Medicaid enrollees presented a financial challenge for this business, especially when measured at the lowest reimbursement rate of 30 percent. Yet the addition of allied providers significantly mitigated the economic impact. In a group practice with no allied providers, profits fell 24 percent; with one hygienist-therapist, earnings dropped by only 8 percent (Exhibit 7).

Exhibit 7

Profit Impact on a **Small Group Dental Practice** Serving 20% Medicaid Patients



SOURCE: Pew Center on the States, 2010.

Policy Implications

Private practices provide the majority of dental care in the United States. As outlined in Pew's 2009 policy framework, *Help Wanted: A Policy Maker's Guide to New Dental Providers*, states interested in pursuing new types of providers should think carefully about how these practitioners will complement the system.[28] Policy makers should consider the following:

1. The Productivity and Profit Calculator assumes that allied providers are seamlessly integrated into a dental practice. This requires effective collaboration among team members. Dental school curricula should ensure that graduating students have been trained to manage a team of professionals and to work efficiently with allied providers. Continuing education should be offered to practicing dentists to enhance these skills.

2. States that are seriously committed to improving dental care access must ensure their Medicaid reimbursement rates are high enough to cover the cost of care. States that do so will be more successful in encouraging broad Medicaid participation by dentists. It is unrealistic to expect dental practices—with or without allied providers—to accept Medicaid patients if doing so means their practices take a significant loss of profit.

3. State Medicaid programs should ensure that enrollees have the supports they need to successfully make and keep dental appointments. This could include enhancing transportation assistance, offering translation services or providing case management services to help patients navigate the Medicaid system. These and other supports will help dental practices maintain the utilization levels they need to remain profitable.

4. State leaders and Medicaid administrators should ensure that their policies permit reimbursement for services performed by allied providers. Policy makers should review existing rules that cover public and private dental insurance and take appropriate action to address issues that might arise in the billing process.

Conclusion

Hiring an allied provider can make smart business sense for a private dental practice by increasing its productivity and—in the process—meeting the needs of many low-income Americans who currently go without care.

To make these innovations and benefits a reality for patients and practices, states first must authorize allied providers. As policy makers consider new workforce models, this report and the Productivity and Profit calculator can inform their deliberations and proposals.

State leaders, dentists, public health advocates and other stakeholders should be heartened to know that expanding the dental team is an effective strategy to improve access to care, but they cannot overlook the importance of setting adequate Medicaid reimbursement rates. While raising rates is difficult during tight fiscal times, research confirms its positive impact on access,[29] and several states, including Maryland and Rhode Island, have taken this step in recent years despite budget constraints.

As the American Dental Association notes on its website, "for people who live in areas where a dentist is not available or who cannot afford treatment, access to dental care can be difficult."[30] Shortages of dentists and low Medicaid rates that discourage practices' participation have serious health, education and economic consequences—consequences felt by millions of families firsthand. With stakes this high, now is the time to welcome new allies to the team.

Methodology

The Productivity and Profit Calculator was developed by Scott & Company, Inc.—a California-based consultancy that works with organizations interested in developing or assessing new business models in health care. The calculator's purpose is to determine the impact of an allied dental health professional on a private dental practice's productivity and pre-tax profit. The calculator uses a Microsoft Excel-based model that can be adapted by users to simulate a variety of dental practices, including those presented in the three scenarios of this report.

Scott & Co. consulted with a group of dentists, practice managers, dental hygienists and other practitioners to develop the calculator. In addition, an advisory panel reviewed the project scope, model structure, inputs and findings. (See Advisory Panel members on page 20.)

The expert team guided the creation of the set of procedures that represent those performed in a typical dental practice and that acts as a proxy for the hundreds of procedures conducted within a practice. The team made recommendations on 20 common procedures in eight categories. The model also allows the user to select "Other" as a ninth category, which enables the user to add a specific procedure not found in the standard eight categories.

The expert group provided input on the initial set of fees for each procedure and the time needed to perform them. Fees for each procedure were drawn from the American Dental Association's 2009 Survey of Dental Fees.[31] Medicaid reimbursements are calculated as a percentage of the practice's usual fees. The initial Medicaid reimbursement rate in the calculator is 60 percent of usual fees. This percentage is roughly the national average for the state reimbursement rates paid to dentists for five common dental procedures.[32] The calculator uses one "case mix" for the entire practice and assumes that Medicaid-enrolled patients will receive services similar to those received by privately insured patients.[33]

The allied providers' scopes of practice were based on a 2009 W.K. Kellogg Foundation report.[34] The initial fixed-cost structure was developed under

the guidance of the expert panel and uses salaries from the Bureau of Labor Statistics and publicly available price lists for equipment, leasing fees and tenant improvements.[35] The model assumes a 244-day working year. The model also assumes that a dentist will spend some portion of the day supervising the allied provider; the value of 30 minutes of supervision time for allied providers was developed in consultation with the advisory group.

Users of the calculator can change all variables (allowable procedures, fees, supervision time and cost structure). The model includes initial variables, which provide a starting point for users to generate findings. Fees for services, Medicaid reimbursement rates, salaries, equipment costs, leasing fees and tenant improvements vary significantly across the country; users should make adjustments to reflect local conditions.

For instructions on how to use the calculator, please refer to the user manual at ***www.pewcenteronthestates.org/ittakesateam****. A detailed breakout of inputs and outputs for all three scenarios that were tested can also be found at this Web page.*

Advisory Panel

This report benefited tremendously from the insights and expertise of an advisory panel and two additional external reviewers. These experts provided feedback and guidance at critical stages in the project. While they have screened the report for accuracy, neither they nor their organizations necessarily endorse its findings or conclusions.

L. Jackson Brown, DDS, MPhil, PhD
Editor
Journal of Dental Education

Wayne Cottam, DMD, MS
Associate Dean for Community Partnerships, Arizona School of Dentistry and Oral Health
Member, National Network for Oral Health Access (NNOHA)

Greg Nycz
Executive Director
Family Health Center of Marshfield, Inc.

Jesley C. Ruff, DDS
Senior Vice President, Chief Professional Officer
American Dental Partners

Laura Smith, MPA
President and CEO
Washington Dental Service Foundation

Norman Tinanoff, DDS, MS
Chair, Department of Health Promotion and Policy
University of Maryland

Scott F. Wetterhall, MD, MPH
Senior Program Director, Health Security and Systems Research
RTI International

Endnotes

1 In 2006, there were 164,864 private-practice dentists, out of a total of 179,594 professionally active dentists. *See* "Key Dental Facts" (American Dental Association, September 2008), 13, http://www.ada.org/ada/prod/survey/publications_freereports.asp#key (accessed December 7, 2009). In 2007, 73.3 percent of private-practice dentists were sole proprietors. *See* ADA *2008 Survey of Dental Practice*, 5.

2 As of September 30, 2009, those 49 million Americans lived in one of 4,230 dental health professional shortage areas. *See* "Shortage Designation: HPSAs, MUAs & MUPs," Health Resources and Services Administration, U.S. Department of Health and Human Services, http://bhpr.hrsa.gov/shortage (Accessed November 12, 2010).

3 Pew Center on the States, "The Cost of Delay: State Dental Policies Fail One in Five Children," http://pewcenteronthestates.org/costofdelay (February 2010).

4 The estimated number of children who will benefit from the health care reform law comes from Pew Center on the States, Children's Dental Campaign. Pew used national statistics of the insured and uninsured to determine the number of children (approximately 8 million) who are currently uninsured and who would likely qualify for public health insurance (Medicaid and the Children's Health Insurance Program), which includes dental coverage, and the state-based exchanges. Pew then used studies from Massachusetts' health care implementation experience to determine a 66 percent discount rate, allowing for exemptions, and people declining coverage and choosing to pay a fine. *See* "Distribution of the Nonelderly Uninsured by Age" (Henry J. Kaiser Family Foundation, 2009), http://www.statehealthfacts.org/comparetable.jsp?typ=1&ind=134&cat=3&sub=40 (accessed August 17, 2010). *See also* S. Long and L. Phadera, "Estimates of Health Insurance Coverage in Massachusetts from the 2009 Massachusetts Health Insurance Survey" (The Urban Institute, October 2009), http://www.mass.gov/Eeohhs2/docs/dhcfp/r/pubs/09/his_policy_brief_estimates_oct-2009.pdf (accessed August 17, 2010).

5 In 2007, 68 percent of independent dentists employed dental hygienists. *See* American Dental Association Survey Center, *2008 Survey of Dental Practice: Employment of Dental Practice Personnel* (Chicago: American Dental Association, 2009), 6, https://www.ada.org/sections/professionalResources/pdfs/08_sdpe.pdf (accessed September 2, 2010).

6 The calculator is a model that is intended to gauge the direction and magnitude of the gain or loss to earnings and productivity associated with hiring allied providers. It is intended for illustrative purposes only and should not be relied upon as a business-planning tool to forecast actual profit and loss.

7 U.S. Government Accountability Office, "Factors Contributing to Low Use of Dental Services Among Low-Income Populations" (September 2000), http://www.gao.gov/archive/2000/he00149.pdf (accessed December 7, 2009).

8 A study of six states that raised reimbursement rates for dentists found that provider participation

increased by at least one-third and sometimes more than doubled following rate increases. *See* A. Borchgrevink, A. Snyder and S. Gehshan, "The Effects of Medicaid Reimbursement Rates on Access to Dental Care," National Academy of State Health Policy, (March 2008), http://www.nashp.org/sites/default/files/CHCF_dental_rates.pdf (accessed September 30, 2010).

9 R. Levin, "2009 *Dental Economics*®/Levin Group Practice Survey," *Dental Economics*, http://www.levingroupgp.com/pdf/2009survey.pdf (accessed September 2, 2010).

10 P. W. Newacheck et al., "The Unmet Health Needs of America's Children," *Pediatrics* 105 (2000): 989–997.

11 Pew Center on the States, "The Cost of Delay," 16–20.

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13 N. Pourat and G. Nicholson, *Unaffordable Dental Care Is Linked to Frequent School Absences* (Los Angeles, CA: UCLA Center for Health Policy Research, 2009), 1–6, http://www.healthpolicy.ucla.edu/pubs/publication.aspx?pubID=387 (accessed September 2, 2010).

14 E. Davis, A. Deinard, and E. Maiga, "Doctor, My Tooth Hurts: The Costs of Incomplete Dental Care in the Emergency Room," *Journal of Public Health Dentistry* (Spring 2010): 1–6.

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17 M. Willis, C. Esqueda, and R. Schacht, "Social Perceptions of Individuals Missing Upper Front Teeth," *Perceptual and Motor Skills* 106 (2008): 423–435.

18 D. Nash, et al. "Dental Therapists: A Global Perspective," *International Dental Journal* 58 (2008): 61–70.

19 *See* Bureau of Labor Statistics, Employment Projections, "Education Pays...," (updated May 27, 2010), http://www.bls.gov/emp/ep_chart_001.htm (accessed August 17, 2010).

20 The calculator assumes new allied providers will be paid a fixed salary plus benefits as opposed to a percentage of the revenues they produce. Associate dentists' compensation is assumed to be 30 percent of the fees from the services they produce.

21 The scopes of services presented here are drawn from B. Edelstein, "Training New Dental Providers in the U.S." (W.K. Kellogg Foundation, 2009), http://ww2.wkkf.org/DesktopModules/WKF.00_DmaSupport/ViewDoc.aspx?LanguageID=0&CID=6&ListID=28&ItemID=5000636&fld=PDFFile (accessed August 18, 2010).

22 Pew Center on the States, "The Minnesota Story: How Advocates Secured the First State Law of Its Kind Expanding Children's Access to Dental Care" (The Pew Charitable Trusts, 2010), 3, http://www.pewcenteronthestates.org/uploadedFiles/Minnesota_Story_brief.pdf?n=8376 (accessed September 20, 2010).

23 Agency for Healthcare Research and Quality, "Innovation Profile: Alaska Dental Health Aide Program Improves Access to Oral Health Care for Rural Alaska Native People" (November 2009), http://www.innovations.ahrq.gov/content.aspx?id=1840 (accessed August 9, 2010).

24 On average, government programs constituted about 6 percent of private dentists' gross billings in 2007. *See* American Dental Association, "Income from the Private Practice of Dentistry" (2008), 94.

25 American Dental Association, "2008 Survey of Dental Practice: Characteristics of Dentists in Private Practice and Their Patients," Table 27 (September 2009), 28.

26 American Dental Association, "2005–06 Survey of Dental Practices Rendered" (2007), 28. *See also* Table 32, "General Practitioners" and "Pediatric Dentists."

27 Pew has found that states reimburse, on average, 60.5 percent of dentists' median fees for five common procedures. Twenty-four states met or exceeded this benchmark. The worst-performing state has a reimbursement rate of 30.5 percent. *See* Pew Center on the States, "The Cost of Delay," 40.

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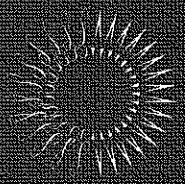
31 The model uses the average national fee for each procedure, rounded to the nearest $5. For procedure categories that represent multiple procedures (e.g., denture services), a composite fee is used. *See* American Dental Association, "2009 Survey of Dental Fees" (2009).

32 Pew Center on the States, "The Cost of Delay," 40.

33 The assumption that care is similar across Medicaid and non-Medicaid populations is supported by an Agency for Healthcare Research and Quality study, which found that, "In 2004, approximately 128 million people with at least one dental visit received about 572 million dental procedures in the United States. Approximately 86% of the population with at least one dental visit had at least one diagnostic procedure (examination or X-ray), and about 79% of the population had at least one preventive procedure (cleaning, fluoride, or sealant) during the year. Together, approximately 73% of all procedures were diagnostic (42.5%) or preventive (30.4%) during 2004." R. J. Manski and E. Brown, "Dental Use, Expenses, Private Dental Coverage, and Changes, 1996 and 2004" *MEPS Chartbook No.17* (Agency for Healthcare Research and Quality, 2007), 5, http://www.meps.ahrq.gov/mepsweb/data_files/publications/cb17/cb17.pdf (accessed August 20, 2010).

34 Edelstein, "Training New Dental Providers in the U.S." (2009).

35 For dental hygienist and dental assistant salary information, see Bureau of Labor Statistics, Occupational Employment Statistics, "20-2921, Dental Hygienists" (2010), http://www.bls.gov/oes/current/oes292021.htm; and "31-9091, Dental Assistants" (2010), http://www.bls.gov/oes/current/oes319091.htm (accessed August 9, 2010). Values for salaries for dentists, dental therapists, and hygienist-therapists were generated using input from expert advisors. For equipment costs, *see* Den-Med-Pro Web site, http://www.denmedpro.com/ (accessed August 17, 2010); and Health Care Equipment Specialty, Inc. Web site, http://www.buydentalequipment.com/ (accessed August 17, 2010). For tenant improvement costs, *see* M. Unthank, "Dental Office Planning," *Journal of the American Dental Association* 130 (1999), http://jada.ada.org/cgi/reprint/ 130/11/1579 (accessed August 17, 2010). Note the article quotes $75–$135 improvement cost per square foot, approximately 10 years ago. The model uses $150 per square foot to create a national average, updating these prices. *See also* A. Guay, "Dental Practice: Prices, Production and Profits," *Journal of the American Dental Association* 136 (2005): 360, http://jada.ada.org/cgi/reprint/136/3/357?maxtoshow=&hits=10&RESULTFORMAT=&fulltext=office+costs&and orexactfulltext=and&searchid=1&FIRSTINDEX=0&sortspec=relevance&resourcetype=HWCIT (accessed August 17, 2010). This article indicates total practice costs of $295,890 in 2000, but does not break down the costs by equipment, lease improvement, supplies and staff.



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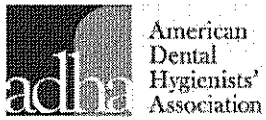
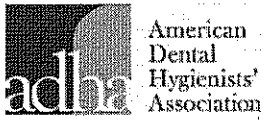
Dental Hygienists Restorative Duties By State



State	Apply Cavity-Liners & Bases	Place & Remove Temporary Restorations	Place/Remove Temporary Crowns	Place/Carve/Finish Amalgam Restoration	Place & Finish Composite Resin Silicate Restoration	Requirements
AK				Allowed*	Allowed*	Board Approved Course WREB or Equivalent Exam
AL	Allowed*	Allowed*	Place Only*	Prohibited	Prohibited	
AR				Prohibited	Prohibited	Program
AZ		Place*				
CA	Allowed**	Allowed**	Allowed**	Allowed* Requires RDAEF License	Allowed* Requires RDAEF License	
CO						
CT		Prohibited		Prohibited	Prohibited	
DC	Prohibited	Allowed		Prohibited	Prohibited	
DE		Prohibited	Prohibited	Prohibited	Prohibited	
FL	Allowed	Allowed	Allowed	Prohibited	Prohibited	
GA	Allowed*		Allowed*			
HI				Prohibited	Prohibited	
IA	Allowed*	Allowed*				
ID	Allowed*		Place Only*	Allowed	Allowed	Restorative Endorsement. WREB or Equivalent Restorative Exam.
IL				Prohibited	Prohibited	
IN						
KS						
KY	Allowed*		Allowed*	Allowed*	Allowed*	Proof of competency.
LA				Prohibited	Prohibited	
MA	Prohibited	Remove Only*	Allowed*	Prohibited	Prohibited	
MD		Allowed	Allowed	Prohibited	Prohibited	
ME		Allowed	Allowed*	Allowed*	Allowed*	Board approved EFDA program

*Can do services by virtue of inclusion in dental assistants scope of practice. Please check practice act for education requirements.
**Allowed for an RDH, RDHEF, or RDHAP licensed prior to 2006.

Dental Hygienists Restorative Duties By State



State	Apply Cavity-Liners & Bases	Place & Remove Temporary Restorations	Place/Remove Temporary Crowns	Place/Carve/Finish Amalgam Restoration	Place & Finish Composite Resin Silicate Restoration	Requirements
MI	Allowed*	Allowed*	Allowed	Allowed*		Registered Dental Assistant took approved course
MN		Allowed*	Allowed*	Allowed	Allowed*	Board approved course to place & adjust permanent restorations.
	Note: MN also permits RDH to place, contour and adjust glass ionomer.					
MO		Allowed*		Allowed*	Place Only*	Proof of Competency
MS						
MT		Allowed*		Prohibited	Prohibited	
NC	Allowed*	Place Only*				
ND	Prohibited	Allowed*	Allowed*	Prohibited	Prohibited	
NE				Prohibited	Prohibited	
NH	Allowed	Allowed	Allowed*	Place		Expanded Duty Course
NJ		Allowed*				
NM		Allowed	Allowed	Allowed	Allowed	EFDA Certification
NV		Place Only	Allowed			
NY		Allowed*		Allowed*	Allowed*	Approved Course
OH		Allowed*		Place Only	Place Only	
OK		Place Only				
OR				Allowed*	Allowed*	Board Approved Course, WREB or Equivalent Exam, Restorative Function Endorsement.
PA	Allowed*			Allowed*	Allowed*	
RI		Allowed		Prohibited	Prohibited	
SC				Prohibited	Prohibited	
SD		Place Only		Prohibited	Prohibited	
TN	Allowed	Allowed		Place Only		Restorative Function Permit

*Can do services by virtue of inclusion in dental assistants scope of practice. Please check practice act for education requirements.
**Allowed for an RDH, RDHEF, or RDHAP licensed prior to 2006.

Dental Hygienists Restorative Duties By State

State	Apply Cavity-Liners & Bases	Place & Remove Temporary Restorations	Place/Remove Temporary Crowns	Place/Carve/Finish Amalgam Restoration	Place & Finish Composite Resin Silicate Restoration	Requirements
TX	Prohibited	Prohibited	Prohibited	Prohibited	Prohibited	
UT						
VA						
VT						Trainings expanded function.
WA		Allowed*	Allowed*	Allowed*	Allowed*	Restorative services in curriculum of Washington Dental Hygiene programs. WREB restorative required for dental hygiene license.
WI		Place Only				Replacement of temporary restorations in emergency situations only.
WV	Allowed*	Allowed*	Allowed			
WY		Place Only		Allowed (with EP Certificate)	Allowed (with EP certificate)	Expanded function certificate no longer offered, but existing certificates honored.

This chart is for comparative purposes only. If information does not indicate whether one of the functions is prohibited or allowed, no assumptions should be made.

Disclaimer: Information based on staff research of state statutes and legislation. This document should not be considered a legal document.

*Can do services by virtue of inclusion in dental assistants scope of practice. Please check practice act for education requirements.
**Allowed for an RDH, RDHEF, or RDHAP licensed prior to 2006.

American Dental Hygienists' Association

Oral Health Care Workforce – Current and Proposed Providers

	Advanced Dental Hygiene Practitioner (ADHP)	Alaskan Dental Health Aide Therapist (DHAT)	Minnesota Dental Therapist /Advanced Dental Therapist (DT/ADT)	Community Dental Health Coordinator (CDHC)
Developed by	American Dental Hygienists' Association www.adha.org/adhp	Alaska Native Tribal Health Consortium (ANTHC) – Community Health Aide Program www.anthc.org	Minnesota State Statute and Rules www.dentalboard.state.mn.us	American Dental Association www.ada.org
Stage of Development	ADHP educational competencies were finalized in 2008. The first educational program based on ADHP competencies began in Fall 2009.	DHAT practice began in Alaska in 2004. The first graduates from the U.S.-based DENTEX program began practice in 2008.	Educational programs for the DT (at the University of Minnesota School of Dentistry) and ADT (at Metropolitan State University) began in Fall 2009.	Curriculum complete and initial educational pilot program began in Winter 2009.
Education/Training	Master's level education at accredited institution; open to individuals currently licensed as dental hygienists who have a Bachelors degree	24 month program administered by ANTHC in partnership with the University of Washington DENTEX program	DT – minimum Baccalaureate degree ADT – Master's degree	Completion of 18 months of training.
Regulation/Licensure	Providers are already state licensed dental hygienists. ADHP is envisioned to be state licensed and regulated.	Providers are certified and regulated by Indian Health Service's Community Health Aide Program	Providers required to hold state license; can be dually licensed as a dental hygienist and administer dental hygiene scope.	Providers envisioned to be certificated; no formal state licensure
Proposed Settings	Community and public health settings, possibly private practice	Remote Alaskan villages	Settings that serve low-income and underserved patients, or are located in designated dental health professional shortage areas.	Community and public health settings
Proposed Supervision	Collaborative arrangement envisioned with strong communication and referral networks; presence of a dentist not required; use of teledentistry.	Remote/general supervision of a dentist; presence of a dentist not required; use of teledentistry	**DT** – General or indirect supervision depending on service **ADT** - Collaborative management agreement with dentist, presence of a dentist not required for most services	Onsite or general supervision, depending on service

American Dental Hygienists' Association

Oral Health Care Workforce – Current and Proposed Providers

	Advanced Dental Hygiene Practitioner (ADHA)	Alaskan Dental Health Aide Therapist (DHAT)	Minnesota Dental Therapist /Advanced Dental Therapist (DT/ADT)	Community Dental Health Coordinator (CDHC)
Other Relevant Information	ADHA convened an ADHP Task Force, an ADHP Advisory Committee, and sought input from approximately 200 stakeholder groups in developing ADHP competencies.	Formal evaluations of DHAT practice have demonstrated that irreversible dental procedures can be safely and effectively delivered by non-dentists.	Minnesota is the first state to legislate new, mid-level oral health providers, the DT and ADT. A thirteen-member workgroup, comprised of various stakeholders, made recommendations on scope, supervision and education.	The ADA convened an internal workgroup to develop CDHC curriculum
	Several national stakeholders, including the National Rural Health Association and National Rural Education Association, support the ADHP model	Dental therapist models are prevalent in more than 50 counties internationally.	The ADT education program at Metropolitan State University is guided by the ADHP competencies, competencies for the New General Dentist, and requires students to be licensed and actively practicing as a dental hygienist.	The ADA and ADA Foundation have committed nearly $7 million to fully fund CDHC pilot programs over five years.
	Language in the report accompanying the FY 2006 Labor/HHS Appropriations encourages federal agency support of the ADHP	DHAT providers are often Alaskan Natives who reside or grew up in the remote villages they serve.	The DT program at the University of Minnesota does not require an oral health-based baccalaureate degree or licensure as a dental hygienist for admission to the program.	The University of Oklahoma, UCLA (in conjunction with Salish Kootenai College in Montana) and Temple University in Philadelphia are CDHC pilot sites.
	Metropolitan State University is the first education program to begin guided by ADHP competencies. Eastern Washington University and the University of Bridgeport Fones School of Dental Hygiene have formal commitments to begin ADHP programs.	The Kellogg Foundation began a comprehensive two-year study to evaluate effectiveness in 2008.	Initial graduates of DT/ADT programs are anticipated to enter the workforce in mid-2011.	CDHC trainees are recruited from the communities the provider is intended to serve.

American Dental Hygienists' Association

Oral Health Care Workforce – Current and Proposed Providers

	Advanced Dental Hygiene Practitioner (ADHA)	Dental Health Aide Therapists in Alaska	Minnesota Dental Therapist/Advanced Dental Therapist	Community Dental Health Coordinator (ADA)
Preventive Scope	- Oral health and nutrition education - Full range of dental hygiene preventive services, including complete prophylaxis, sealant placement, fluoride treatments, caries risk assessment, oral cancer screenings - Expose radiographs - Advanced disease prevention and management therapies (e.g. chemotherapeutics)	- Oral health and nutrition education - Sealant placement - Fluoride treatments - Coronal polishing - Prophylaxis - Expose radiographs	- Oral health and nutrition education - Sealant placement - Fluoride varnishes - Coronal polishing - Oral cancer screenings - Caries risk assessment - Expose radiographs	- Oral health and nutrition education - Sealant placement - Fluoride treatments - Coronal polishing - Scaling for Type I Periodontal patients - Collection of diagnostic data
Periodontal Scope	-Provide non-surgical periodontal therapy.	-Provide non-surgical periodontal therapy	N/A	N/A
Restorative Scope	- Preparation and restoration of primary and permanent teeth -Placement of temporary restorations - Placement of pre-formed crowns -Temporary recementation of restorations -Pulp capping in primary and permanent teeth -Pulpotomies on primary teeth - Uncomplicated extractions of primary and permanent teeth -Place and remove sutures -Provide simple repairs and adjustments on removable prosthetic appliances	- Restorations of primary and permanent teeth - Placement of pre-formed crowns - Pulpotomies - Non-surgical extractions of primary and permanent teeth	- Restorations of primary and permanent teeth - Placement of pre-formed crowns - Placement of temporary crowns - Extractions of primary teeth - Nonsurgical extractions of permanent teeth (ADT only) - Direct /Indirect Pulp Capping - Pulpotomies on primary teeth - Atraumatic restorative therapy	- Palliative temporization (with hand instrumentation only) - Placement of temporary restorations
Additional Competencies	- Local anesthesia and nitrous oxide administration - Diagnosis within scope of practice - Limited prescriptive authority (for	- Local anesthesia administration - Patient referral	- Local anesthesia nitrous oxide administration - Dispense analgesics, anti-inflammatories, and	- Development and implementation of community-based oral health programs

	prevention, infection control and pain management) - Triage - Case management - Healthcare policy and advocacy -Health promotion for individuals, families, communities - Patient referral	antibiotics - Provide, dispense, administer analgesics, anti-inflammatories, and antibiotics (ADT only) - Assessment and treatment planning as authorized by collaborating dentist (ADT only) - Repair of defective prosthetic devices - Placement and removal of space maintainers - Stabilization of reimplanted teeth	- Case coordination - Administrative/office management procedures - Triage

Connecticut State Dental Association

835 West Queen Street
Southington, CT 06489

860.378.1800/phone
860.378.1807/fax

CSDA.com

September 30, 2011

Jennifer L. Filippone
Chief Practitioner Licensing and Investigations Section
Department of Public Health
410 Capitol Avenue, MS#12MQA
PO Box 340308
Hartford, CT 06134

Dear Ms. Filippone,

Per Public Act 11-209, An Act Concerning the Department of Public Health's Oversight Responsibilities Relating to Scope of Practice Determinations For Health Care Professions, the Connecticut State Dental Association (CSDA) is formally submitting this document as an impact statement to the Advanced Dental Hygiene Practitioner (ADHP) scope request which was submitted by the Connecticut Dental Hygiene Association (CDHA). The CSDA is the trusted leader and voice for oral healthcare in Connecticut and currently represents 2,470 dentists, or nearly 80% of all licensed Connecticut dentists.

The CSDA is in opposition to the creation of an ADHP as described by the CDHA's recent scope request submitted to the Department of Public Health (DPH). The reasons for this opposition include the fact that Connecticut residents currently have access to the highest quality oral health care and therefore, ADHP is not needed in our state. We have data to support that ADHP clearly will not impact access to care, and that it would be an expensive model for the State to implement. Finally, the educational curriculum for ADHP, as proposed, is not properly accredited and lacks appropriate testing as well as educational and practice standards.

Connecticut Has Access

The CSDA believes that augmentation of the current dental workforce should only occur if the capacity in the present dental workforce is inadequate to deliver care to the population. This is clearly not the case:

- According to the Pew Charitable Trusts (PEW) February 2011 Issue Brief entitled "Two Kinds of Dental Shortages Fuel One Major Access Problem, "Connecticut enjoys one of the highest dentist-population ratios in the country.

- There are currently plans to open ten new dental schools around the country, with one, the University of New England, slated to open within the next five years. Additionally, the Connecticut State legislature has authorized the University Of Connecticut School Of Dental Medicine to enlarge its class by ten students in each of its four classes which should further increase the number of potential new dentists practicing in Connecticut in the near future.

- According to the Centers for Disease Control which studied the percentage of adults aged 18+ who have visited a dentist or dental clinic in the past year, data for which was last compiled in 2008, Connecticut leads the nation at 78.6%.

- According to data from the 2010 Census and licensing data from the DPH, Connecticut's practicing dental population is healthy, diverse and continues to grow.

The realities of the access to care issue in Connecticut have changed dramatically over the past three years when there were only approximately 120 dentists participating in the HUSKY program. Currently there are nearly 1,300 providers in the Medicaid network. The Department of Social Services (DSS), in concert with Connecticut Dental Health Partnership (CTDHP) conducted "mystery shopper" blind phone calls last year and found the following as a result of having an additional 1,200 participating dentists:

1. Emergency appointments are available to patients the same or very next day. In Connecticut no child who has a dental emergency waits more than 24 hours to get that emergency addressed.
2. Routine appointments are made in 2-4 week increments and initial appointments average 5-6 weeks which closely mirror the privately paying patient.
3. 95% of clients were able to access care within 10 miles of their residence

The DSS has also reported the following facts related to the perceived access to care problems in our state:

- When HB5616, "An Act Concerning An Advanced Dental Hygiene Practice Pilot Program" was introduced in 2011, their written testimony opposed the creation of an ADHP, stating "the Department feels very strongly that access is no longer as great a concern as [it once was.]. Dentists have recognized the need for more access to care and have stepped up to the plate and delivered that care".
- Recent preliminary 2010 statewide utilization figures acquired from DSS reports a dramatic rise in utilization of dental services among children in the Medicaid system, from 37% in 2008 to approximately 55%. This figure represents the percentage of the population that is eligible to utilize this care and who has chosen to do so.

ADHP Is An Expensive Model And Will Not Impact Access

The ADHP will have negligible impact on access to care for the underserved. Currently ADHP does not exist in the United States. Where it does exist internationally, the ADHP

model has failed to deliver care to the population it was designed to serve. In fact, countries like Australia were forced to adopt different dental delivery systems because ADHP failed to deliver care to the indigent population.

The authors of the ADHP scope request rely upon information provided by the Pew and Kellogg Foundations. However it is clear that they misunderstand the intent of those organizations. While Pew and Kellogg do mention that the creation of an ADHP (along with various other dental models) as potentially beneficial, it is also clear that they favor the Dental Therapist model which is a completely different dental delivery system than ADHP. In fact, the Pew Foundation states in its May 2009 report entitled *Help Wanted: A Policy Maker's Guide to New Dental Providers*, "training [for the ADHP] may be excessive and expensive given the limited expansions gained in scope of practice." Pew goes on to state that "recruiting from the current pool of hygienists would limit cultural competence since most are white women."

The overall point is that the authors of the ADHP scope request are misrepresenting the type of programs that are supported by these Foundations. Dental therapists are far different than ADHPs. They (Pew&Kellogg) have decided to fund and support an entirely different model than ADHP.

Quite simply, the data does not support the assumption that utilization of dental services will increase with the implementation of an ADHP. The general dentists in the State of Connecticut have answered the call to increase utilization of dental services. Just as important, the dental profession continues to work collaboratively with DSS and CTDHP to determine why more individuals who can access dental care for "free" are not doing so. The answer to this question may result in solutions such as education and awareness activities, far more efficient and effective than the creation of a new dental provider. While the salaries for ADHPs are not yet known, the length of their education means that it would likely be more expensive to hire than hygienists compensated at the rate of approximately 40 dollars per hour plus benefits. Tuition to obtain a 6-year ADHP education, estimated at up to $150,000 will make it prohibitive for most students, severely limiting class size.

ADHP Is Not Properly Accredited & Lacks Appropriate Testing and Standards
The accreditation mechanism proposed by the authors of the ADHP scope request is disturbing. It is important to note that the ADHP educational curriculum is currently not accredited anywhere in the United States. The Commission on Dental Accreditation (CODA) is recognized by the United States Department of Education (USDOE) as the sole accrediting agency for dental and hygiene programs. CODA's mission is to serve the public by establishing, maintaining, and applying standards that ensure quality and continuous improvement of dental and dental related education and to reflect the evolving practice of dentistry. The reference that CODA is reviewing standards for all mid-level providers is incorrect. However, CODA will be looking at a specific program in Minnesota and debating whether or not to set standards for the Minnesota Dental Therapy program, *not* ADHP. This process will take several years and approval is by no means guaranteed.

In addition, one must take the time to understand all of the competencies an ADHP would be allowed to perform. The curriculum essentially gives hygienists a scope of practice

equivalent to a DDS or DMD. To create this new provider, lawmakers would essentially dismantle Sect.379a of the Dental Practice Act, which defines the rigorous standards one must achieve to perform surgical dentistry in Connecticut. In an effort to accredit their program the authors of the ADHP scope request have looked to the Connecticut Board of Higher Education. However it should be noted that this Board has little expertise in the area of dental education, and for the state to implement its own dental education accreditation structure undermines the Authority of the USDOE and CODA.
As stated before, the extent of the competencies with a lack of testing and standards subverts Sect.379a of the Dental Practice Act. The proposed ADHP has no national or regional standards to achieve. ADHP is basically certified competent by the supervising dentist without any independent evaluation as to the competency of the ADHP candidate. There is no established board within the DPH to insure oversight and protection of the public.

Conclusion
In the final analysis, the state of Connecticut and its residents deserve the safest and highest quality of dental services, with the assurance that the practitioner is properly and fully educated, trained and competent. As proposed, ADHP providers fall short of this basic principle, and furthermore, will not impact the public's ability to access dental care, despite the claims to the contrary made in the scope request.

For these reasons, we respectfully ask that the scope of practice request related to the ADHP not be considered.

Sincerely,

Tatiana Barton, DDS
President

Appendix G

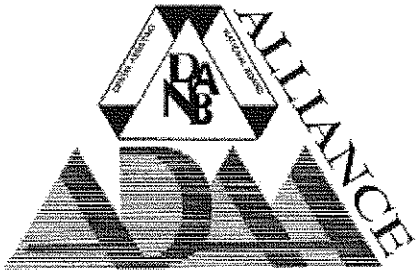
Dental Assisting National Board, Inc. (DANB)
American Dental Assistants Association (ADAA)

Executive Summary

Position Paper of the
ADAA/DANB Alliance

Addressing A Uniform National Model For The Dental Assisting Profession

September 2005



Dental Assisting National Board, Inc., Chicago, Illinois
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A. Introduction

In November 2000, a joint committee of the American Dental Assistants Association (ADAA), the national membership association for dental assistants, and the Dental Assisting National Board, Inc. (DANB), the nationally recognized and accredited dental assisting testing and credentialing organization, initiated a four-phase study of dental assisting core competencies. The goal of the study was to rank dental assisting tasks from most basic to most complex and to classify these tasks into clearly delineated categories or task groupings, each associated with a pre-defined level of education, training, and experience. In classifying these tasks, the joint committee, known as the ADAA/DANB Alliance, sought to create a unified set of definitions related to dental assisting tasks, career levels, and educational/training/credentialing requirements and to lay the foundation for nationwide acceptance and recognition of a uniform national model for the dental assisting profession.

The ADAA/DANB Alliance discusses the findings of this study and the implications of those findings in the *Position Paper of the ADAA/DANB Alliance Addressing a Uniform National Model for the Dental Assisting Profession.*[1] This Executive Summary will outline the issues addressed in the ADAA/DANB Alliance's position paper, including the factors affecting current dental assisting practice, the findings of the DANB/ADAA Study to Define and Rank Core Competencies for Dental Assistants, and the implications of the study's findings as they relate to the profession of dental assisting, the delivery of oral healthcare services, and the health and welfare of the public. (See Appendix A for the Table of Contents of the complete *Position Paper of the ADAA/DANB Alliance Addressing a Uniform National Model for the Dental Assisting Profession.*)

B. The Current State of Dental Assisting Education, Credentialing, and Regulation

Regulation of the Practice of Dental Assisting

Currently, there is no national set of guidelines that governs the practice of dental assisting in the United States. Each of the 50 states has a dental practice act governing the practice of dentistry, and the 50 dental practice acts define the allowable activities of dental assistants to varying degrees: Some state practice acts permit dental assistants to perform any reversible procedure, while others specifically enumerate the tasks that dental assistants are permitted to perform. Many states require registration, licensure, permits, or national certification before dental assistants can perform certain advanced or "expanded" functions, while others permit dentists to delegate tasks to any assistant whom a dentist deems competent. In states where dental assistants are allowed to perform expanded functions, various levels of supervision by the dentist may be required. A few states/districts do not address the practice of dental assisting at all. The spectrum of variation among the 50 states is very broad, and the lack of uniformity makes a state-by-state comparison of the dental assisting profession a time-consuming and labor-intensive proposition.

However, despite the lack of uniformity among the 50 states, certain generalizations about the dental assisting profession can be made, and certain trends can be identified. Dental assistants are explicitly or implicitly recognized in the dental practice acts or administrative rules of 49 states. The dental practice acts and/or administrative rules of a majority of states (31) explicitly or implicitly recognize *more than one level* of dental assistant and restrict the performance of certain advanced functions to dental assistants who complete certain educational or clinical experience requirements or who hold

[1] ADAA/DANB Alliance. *Position Paper of the ADAA/DANB Alliance Addressing a Uniform National Model for the Dental Assisting Profession.* (Chicago: DANB, 2005).

certain credentials. This number has more than doubled since 1993, when only 14 states recognized more than one category of dental assistant (excluding four additional states that had separate requirements for radiography).[2]

Since 2000, at least 11 states have passed new legislation or adopted new administrative rules governing the practice of dental assisting. In each case, the new law or rule permitted or more clearly defined delegation of expanded functions to dental assistants, or established or more clearly defined credentialing requirements for dental assistants. Additional regulatory revisions pertaining to delegation of expanded functions or education and credentialing requirements are currently under consideration in 10 other states.[3] The trend since 2000 toward enactment of new rules related to the delegation of expanded functions to dental assistants, combined with the increase since 1993 in the number of states recognizing two or more levels of dental assisting, reflects the oral healthcare community's increasing interest in allowing the delegation of expanded functions to dental assistants. These trends also indicate that the oral healthcare and regulatory communities recognize that dental assistants who perform expanded functions should be competent and qualified to perform them and that it is necessary to establish and implement a means of measuring competency and/or verifying qualifications of these dental assistants.

Dental Assisting Education

Prospective dental assistants may obtain dental assisting education from a number of different types of education sources, including

- Dental assisting education programs accredited by the American Dental Association's Commission on Dental Accreditation (also referred to as "ADA-accredited dental assisting programs")
- Dental assisting education programs that are not accredited by the ADA, but are offered by post-secondary institutions accredited by U.S. Department of Education–recognized accrediting agencies (also referred to as "non-ADA-accredited dental assisting programs")
- Dental assisting programs based in high schools
- Expanded functions courses approved by state dental boards
- In-office training courses offered by dentist-employers
- On-the-job training
- Continuing dental education programs

It is estimated that college-level dental assisting education programs, both ADA-accredited programs and non-ADA-accredited programs, enroll about 15,000 students per year, though the number of graduates is typically at least 25% lower.[4] In most states, formal education for dental assistants is not required by law, although many do require specific coursework for performing expanded functions. It is estimated that about half of all dental assistants receive most or all of their training on the job.[5]

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[2] ADAA, "Position Paper of the ADAA Task Force to Investigate Mandatory Education and Credentialing for Dental Assistants" (Chicago: ADAA, 1994).

[3] DANB, "DANB RHS in Ohio," *Certified Press* 1, no. 35 (2000): 1; "DANB Executive Director at the Illinois Board of Dentistry," *Certified Press* 1, no. 35 (2000): 5; State of the States, *Certified Press* 3, no. 38 (2002): 6; 4, no. 43 (2003): 7; 22, no. 1 (2004): 6; 22, no. 3 (2004): 6; 22, no. 4 (2004): 7; 23, no. 1 (2005): 7; 23, no. 2 (2005): 7; 23, no. 3 (2005): 5.

[4] American Dental Association. *2002-2003 Survey of Allied Dental Education* (Chicago: ADA, 2004).

[5] Estimate based on the average number of graduates from ADA-accredited dental assisting programs and non-ADA-accredited dental assisting programs, multiplied by an average 11.4 years of working as a dental assistant, reflecting the average career span of a dental assistant employed

A National Credential

Currently, the only measure of dental assisting competency that draws nationwide recognition and participation is the Certified Dental Assistant (CDA) credential that is conferred to dental assistants who pass the CDA Examination administered by DANB. The CDA Exam is made up of three components: Radiation Health and Safety (RHS), Infection Control (ICE), and General Chairside Assisting (GC). These components may be taken all at once, or each component may be taken individually. A candidate must pass all three components within five years to earn the CDA credential.

DANB is recognized by the American Dental Association as the national credentialing agency for dental assistants. Its national certification programs—including the Certified Dental Assistant (CDA), Certified Orthodontic Assistant (COA), and Certified Dental Practice Management Administrator (CDPMA) Examinations, and the RHS, ICE, GC, and Orthodontic Assisting (OA) component examinations—are accredited by the National Commission for Certifying Agencies (NCCA), the accrediting body of the National Organization for Competency Assurance (NOCA). Of the estimated 266,000[6] dental assistants currently practicing nationwide, approximately 31,000 are DANB-Certified, while an additional 100,000+ have passed one or both of the RHS and ICE components of the CDA Exam since 1997, when DANB first began keeping records pertaining to candidate volumes for individual component exams.

DANB requires that Certification be renewed annually—CDAs, COAs, CDPMAs, and COMSAs[7] must complete, each year, 12 hours of continuing dental education (CDE) meeting the CDE guidelines established by DANB for recertification and must maintain current CPR certification.

Currently, 34 states and the Veterans Health Administration recognize or require successful performance on a DANB dental assisting exam (CDA, COA, or one or more DANB component exams) for dental assistants to meet state or agency regulations or as a prerequisite to performing expanded functions.

C. The Need for a Uniform National Dental Assisting Model

In 2000, the U.S. Surgeon General published a comprehensive report[8] that sought to provide an account of the state of oral health of the U.S. population and to identify areas for further improvement, especially among underserved segments of the population. Subsequently, a coalition of public and private organizations responding to the Surgeon General's report identified a number of broad categories within which communities of interest could take action to effect the necessary changes: the coalition recommended, among other actions, taking steps to increase the oral health workforce's diversity, capacity, and flexibility.[9]

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by a private practitioner, as determined by the ADA in its 2003 Survey of Dental Practice (Chicago: ADA, 2005). This number is then subtracted from the Bureau of Labor Statistics estimate of the number of individuals employed as dental assistants (266,000) and the result is divided by the same number to yield the estimated percentage of dental assistants who are trained primarily or solely on the job.

[6] U.S. Department of Labor, Bureau of Labor Statistics. *Occupational Outlook Handbook, 2004-2005 Edition,* online version (Washington, D.C.: U.S. Department of Labor, 2005).

[7] For more information about the currently discontinued Certified Oral and Maxillofacial Surgery Assistant (COMSA) credential, see page 3 of the full *Position Paper of the ADAA/DANB Alliance Addressing a Uniform National Model for the Dental Assisting Profession.*

[8] U.S. Department of Health and Human Services. *Oral Health in America: A Report of the Surgeon General.* Rockville, MD: U.S. Department of Health and Human Services, National Institute of Dental and Craniofacial Research, National Institutes of Health, 2000.

[9] U.S. Department of Health and Human Services. *A National Call to Action to Promote Oral Health.* Rockville, MD: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, and the National Institutes of Health, National Institute of Dental and Craniofacial Research. NIH Publication No. 03-5303, May 2003.

In concert with such efforts at the national level to mobilize the oral healthcare community for action in the service of improving the nation's oral and general health, the ADAA/DANB Alliance recommends that the communities of interest—dentists, dental hygienists, dental assistants, state and federal regulators, public health organizations, and consumers of oral healthcare services—give serious consideration to the adoption or support of a uniform national model for the dental assisting profession.

The acceptance of a uniform national dental assisting model has the potential to provide a number of benefits to the public, to dental assistants, and to the oral healthcare community.

First, a uniform national model for dental assisting may help to mitigate disparities in quality of care among various segments of the U.S. population by standardizing education, training, and competency testing requirements for dental assistants. In addition, acceptance of a standardized national model for dental assisting can help to enhance the overall capacity of the oral healthcare services infrastructure through the cumulative effect of improvements in productivity and cost-efficiency resulting from the safe and expedient delegation of expanded functions to qualified and competent dental assistants.

Adherence to a uniform national model for dental assistants can also increase the capacity of the oral healthcare services infrastructure by enhancing dental assistant recruitment and retention. Specifically, an established uniform national model for dental assisting can

- Minimize unproductive time that dental assistants spend obtaining new credentials when they change their state of residence, and reduce losses from the dental assisting workforce of experienced dental assistants who choose not to obtain new credentials when they change their state of residence;
- Mitigate shortages in the dental assisting workforce by enhancing the ability of dental offices within commuting distance of neighboring states to hire dental assistants living in those states;
- Expedite the transition of military dental specialists into the civilian dental assisting workforce; and
- Facilitate the participation of civilian spouses of frequently relocated military personnel in the dental assisting workforce.

In addition, public health initiatives designed to benefit underserved segments of the population can more effectively recruit qualified dental assisting personnel with the help of nationally standardized credentials. Similarly, national recognition of a standardized set of credentials for dental assistants could greatly facilitate the call-up of dental assisting volunteers in response to a mass casualty event, such as a natural disaster or a terrorist attack.

D. The DANB/ADAA Study to Define and Rank Core Competencies for Dental Assistants

The ADAA/DANB Alliance has undertaken the DANB/ADAA Study to Define and Rank Core Competencies for Dental Assistants (the "DANB/ADAA Core Competencies Study") with the intention that the definitions and recommendations emerging from the study will serve a number of purposes, including:

- To protect the public by identifying standards in quality of care that may be deployed across all states and socio-economic environments
- To help state regulators understand current trends, opinions, and practices prevalent among oral healthcare professionals as they consider the enactment of new legislation, regulations, or

administrative rules related to dental assisting, including reciprocal recognition of dental assisting credentials among states, in furtherance of their public protection obligations

- To assist in efforts to maximize the capacity of the oral healthcare services infrastructure and, thereby, maximize access to care for all U.S. residents by effecting improvements in dental team productivity and cost-efficiency
- To reinforce the idea of a viable career ladder for dental assistants, for the purpose of aiding in recruitment and retention of a qualified dental assisting workforce through enhancements in career mobility and job satisfaction
- To assist public health agencies in identifying qualified dental assistants to assist dentists participating in volunteer programs and other public health initiatives designed to address shortfalls in capacity and disparities in access to care among various segments of the population

Core Competencies Survey Content and Distribution

The ADAA/DANB Alliance distributed a survey listing 70 dental assisting tasks and asked the participants to rate each task in terms of training, education, and/or experience they believed *should be* required to perform the task (rather than what currently *is required* in their state). The study began in 2000 and was conducted in several phases; an analysis of the results of the final two phases—Phases III and IV—is included herein.

In Phase III of the study, in which the survey was distributed to dentists, respondents were asked to assign each task in a list of 70 dental assisting tasks to one of four defined skill categories, which were labeled with generic identifiers (Category A, Category B, Category C, and Category D). In Phase IV, the same survey was distributed to CDAs, Program Directors of ADA-accredited dental assisting programs, and dental assistants who are not CDAs. Because the response rate of non-Certified dental assistants was very low, the responses of this group have not been included in the final analysis.

Dental Assisting Categories

The following dental assisting skill category definitions were provided to survey participants:

> Category A: These are the most basic dental assisting tasks: No minimum experience, training, or education should be required to perform the task (though the task may require a short orientation in order to perform it); that is, in order to perform a Category A task, the assistant needs only to be provided with short, one-time verbal instructions or read a short instruction sheet.
>
> Category B: These tasks are of low to moderate complexity, requiring less than 2 years full-time or up to 4 years part-time dental assisting work experience OR up to 12 months of formal education or training in order to perform this task. Tasks in Category B are appropriate for relatively new OJTs (on-the-job-trained dental assistants) and students currently enrolled in a formal dental assisting education program.
>
> Category C: These tasks are of moderate complexity, requiring 2+ years of full-time or 4+ years of part-time work experience (or some combination of full- and part-time experience) OR at least 12 months of formal education or training. (Tasks in Category C are appropriate for dental assistants who have completed a formal dental assisting education program or who are highly experienced OJTs.)

Category D: These tasks are most complex. In order to perform Category D tasks, the dental assistant would require specific, advanced education or training in addition to or beyond the level required for Category C tasks.

Survey Results

Using appropriate statistical methods and modeling,[10] the survey responses were analyzed and a number of significant results were observed:

- There was significant agreement among the three groups of respondents (dentists, CDAs, and program directors of ADA-accredited dental assisting programs) with regard to the skill level needed for the performance of tasks and the direction of difficulty of the tasks.
- Categorization of tasks was sufficiently consistent among the four categories (Categories A through D) to uphold the appropriateness of the category definitions.
- The analysis revealed that most dental assisting tasks fall into one of two categories—Categories B and C—which correspond roughly to the levels of dental assisting as they are most often defined in dental practice acts that recognize two levels of dental assistant.

The following graphs chart the Rasch Difficulty Measure assigned to each dental assisting task in the survey response analysis for each respondent group. The Rasch Difficulty Measure is a numeric value that corresponds to the survey respondents' perceptions of the level of skill required to perform a task competently, as determined by respondents' assignment of the task to a skill category in the survey. The results for the three respondent groups are plotted side-by-side. Note that eight of the original 70 tasks were removed from the final analysis because of statistical misfit. (Specific tasks measured in the DANB/ADAA Core Competencies Study can be found in Tables A–D later in this Executive Summary.)

[10] For a complete discussion of the statistical methods and models used, see ADAA/DANB Alliance, "Dental Assisting Core Competencies Study," June 15, 2005 (available at www.danb.org).

Figure 1.A: Task Ratings
Tasks 2 - 26

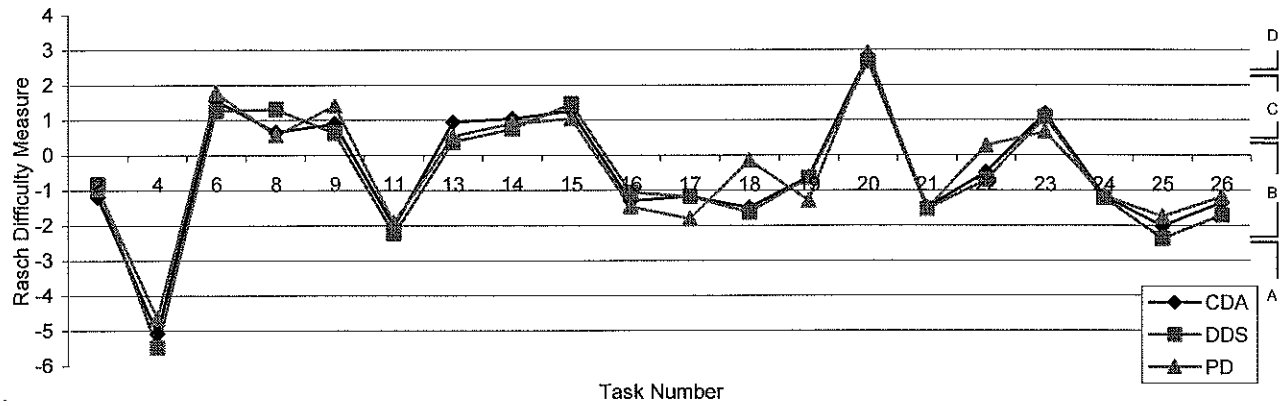


Figure 1.B: Task Ratings
Tasks 27 - 47

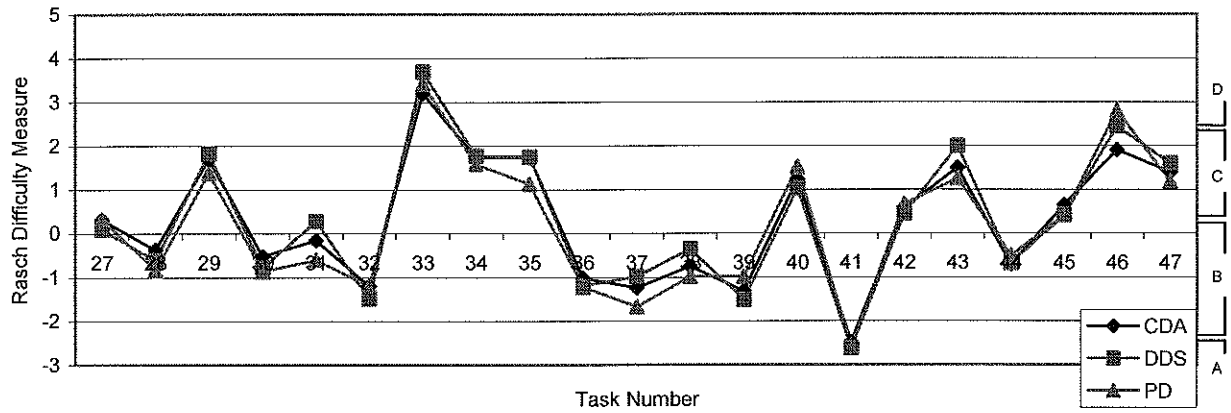
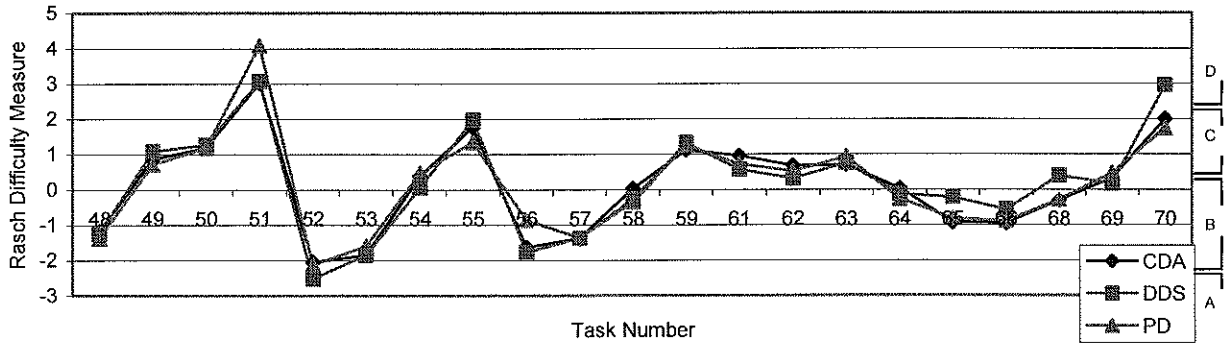


Figure 1.C: Task Ratings
Tasks 48 - 70



There was significant agreement among the three respondent groups with regard to the difficulty level of (or skill level needed to perform) each task and the direction of difficulty of the tasks as they relate to one another. The degree of consistency among the three respondent groups suggests the existence of a "de facto" model for dental assisting that is tacitly understood by a great number of oral health-care professionals across the country who are directly involved in the performance and evaluation of the tasks under consideration. These results encourage the ADAA/DANB Alliance to believe that all members of the dental team will view a more formal national recognition of the definitions and guidelines emerging from this research as an organic outgrowth of current thought within the oral healthcare community.

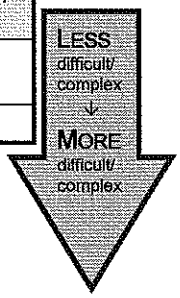
(1) Category A

Category A corresponds to an entry-level dental assistant with very little training or experience. The survey results allowed for only two tasks to be assigned to the entry-level dental assistants represented by Category A.

Table A: Tasks Assigned to Category A (listed in ascending order, from most basic to most complex)

Survey Task Number	Task Name	Rasch Difficulty Measure*
4	Receive and prepare patients for treatment, including seating, positioning chair, and placing napkin	-5.14
41	Prepare procedural trays/armamentaria set-ups	-2.54

* The Rasch Difficulty Measure is a numeric value that corresponds to the survey respondents' perceptions of the level of skill required to perform a task competently, as determined by respondents' assignment of the task to a skill category in the survey.



Recommended **Education/Testing/Credentialing** Requirements for Category A

The respondents believe that no minimum experience, training, or education should be required to perform tasks in Category A; new dental assistants can perform these tasks after only a short orientation.

These results reveal that there is significant agreement among the dental professionals surveyed that some training and/or education should be required for all but the most elementary dental assisting tasks.

(2) Category B

Category B corresponds to relatively new on-the-job-trained dental assistants, or dental assisting students who have completed up to 12 months of formal education. Of the 62 dental assisting tasks categorized in the final survey analysis, 33 fall into Category B.

Table B: Tasks Assigned to Category B (listed in ascending order, from most basic to most complex)

Survey Task Number	Task Name	Rasch Difficulty Measure*
52	Process dental radiographs	-2.23
25	Perform sterilization and disinfection procedures	-2.12
11	Transfer dental instruments	-2.09
53	Mount and label dental radiographs	-1.83
56	Apply topical anesthetic to the injection site	-1.60
21	Mix dental materials	-1.50
26	Provide pre- and post-operative instructions	-1.46
18	Apply topical fluoride	-1.41
57	Demonstrate understanding of the Centers for Disease Control and Prevention Guidelines	-1.38
39	Clean and polish removable appliances and prostheses	-1.35
32	Demonstrate understanding of the OSHA Hazard Communication Standard	-1.30
17	Identify features of rotary instruments	-1.24
16	Demonstrate knowledge of ethics/jurisprudence/patient confidentiality	-1.22
48	Maintain field of operation during dental procedures through the use of retraction, suction, irrigation, drying, placing and removing cotton rolls, etc.	-1.22
24	Provide patient preventive education and oral hygiene instruction	-1.18
37	Take and record vital signs	-1.18
36	Demonstrate understanding of the OSHA Bloodborne Pathogens Standard	-1.10
2	Chart existing restorations or conditions	-1.03
66	Recognize basic dental emergencies	-0.80
19	Select and manipulate gypsums and waxes	-0.69
44	Take preliminary impressions	-0.68
65	Recognize basic medical emergencies	-0.65
30	Using the concepts of four-handed dentistry, assist with basic restorative procedures, including prosthodontics and restorative dentistry	-0.64
38	Monitor vital signs	-0.62
22	Expose radiographs	-0.50
28	Pour, trim, and evaluate the quality of diagnostic casts	-0.50
58	Using the concepts of four-handed dentistry, assist with basic intraoral surgical procedures, including extractions, periodontics, endodontics, and implants	-0.12
64	Fabricate custom trays, to include impression and bleaching trays, and athletic mouthguards	-0.05
68	Respond to basic dental emergencies	-0.04
31	Identify intraoral anatomy	-0.03
27	Place and remove dental dam	0.23
54	Remove temporary crowns and cements	0.26
69	Remove post-extraction dressings	0.27

LESS difficult/complex ↓ MORE difficult/complex

* The Rasch Difficulty Measure is a numeric value that corresponds to the survey respondents' perceptions of the level of skill required to perform a task competently, as determined by respondents' assignment of the task to a skill category in the survey.

The survey results indicate that Category B dental assistants should be allowed to perform (and should be evaluated as competent to perform) tasks related to radiography and infection control, patient education and communications functions, preparation of dental instruments and materials, and all **extraoral** functions, with the exception of two extraoral tasks—*(23) Evaluate radiographs for diagnostic quality* and *(59) Monitor nitrous oxide/oxygen analgesia*—that were ranked by respondents as requiring a higher level of skill and can be found in Category C.

Category B dental assistants should be able to provide chairside assistance to the dentist as he or she performs a wide range of dental procedures. These dental assistants should also be fully conversant in the laws governing dental assisting activities in their state, and in infection control and hazardous material handling protocols. Finally, they should be able to recognize basic medical and dental emergencies and respond as appropriate.

Recommended **Education/Training** Requirements for Category B

Dental assisting programs accredited by the ADA's Commission on Dental Accreditation provide excellent preparation for dental assisting careers, and the ADAA/DANB Alliance supports and encourages participation in these programs among all prospective dental assistants for whom participation is geographically and financially feasible. However, due to the limited capacity and geographic availability of these programs, the ADAA/DANB Alliance also encourages the expansion of alternative education programs in ADA-accredited dental assisting programs, and applauds advancements in this area that have been made in recent years. Other options meriting consideration or further study include development and expansion of distance learning programs in other ADA-accredited dental assisting programs and the extension of accreditation by the ADA's Commission on Dental Accreditation to high school–level dental assisting programs, among others.

The ADAA/DANB Alliance believes that dental assisting programs at non-ADA-accredited institutions that are accredited by other U.S. Department of Education–recognized bodies may be effective in preparing dental assistants to perform tasks in Category B and that further study to evaluate their effectiveness is warranted. In addition, because almost half of all dental assistants receive most or all of their training on the job, the ADAA/DANB Alliance encourages the development of standardized in-office training protocols to be used by dentists for on-the-job training of dental assistants until such time as formal education for dental assistants becomes mandatory.

Recommended **Testing/Credentialing** Requirements for Category B

The ADAA/DANB Alliance recommends that the oral healthcare community make use of **ALL** of the following tools for measuring the competency of Category B assistants:

- *Passing score on DANB's **RHS** and **ICE** Exams.* These two exams test a dental assistant's knowledge in the areas of Radiation Health and Safety and Infection Control; they are components of the full Certified Dental Assistant (CDA) Examination and may be taken by any dental assistant, as there are no eligibility prerequisites.
- *State-specific jurisprudence exam (where available).* Awareness of the duties that are allowed or prohibited by law is an important part of dental assisting practice. The ADAA/DANB Alliance recommends that dental assistants be required to pass a jurisprudence examination that will test their knowledge in this area. (Note that development of a uniform national model for dental assisting may give rise to the need for a national jurisprudence exam that would replace the state-

specific exams.) Currently, as reflected in state dental practice acts, only four states (Iowa, Minnesota, New Mexico, and Texas) require or administer a separate jurisprudence examination for dental assistants.[11]

- *CPR certification.* Category B dental assistants should know how to take a patient's vital signs and be competent to recognize and/or respond to medical emergencies, at least at the basic level.
- *Basic chairside skills exam (where available).* Currently, as reflected in state dental practice acts, two states, Missouri and Oregon, require basic dental assisting examinations (which are developed and administered by DANB) that measure a dental assistant's competency to perform basic functions (many of which are found in Category B). The ADAA/DANB Alliance endorses the requirement of these exams in those states where they are available. The ADAA/DANB Alliance also believes the development of a national basic skills examination that would be less comprehensive than the DANB CDA Exam should be given serious consideration and investigated further.

(3) Category C

Category C corresponds to experienced on-the-job-trained dental assistants or dental assistants who have graduated from formal dental assisting education programs, such as those accredited by the ADA's Commission on Dental Accreditation. Of the 62 tasks categorized in the final survey analysis, 23 fall into Category C, which are shown in Table C on the following page.

The survey analysis indicates that Category C dental assistants should be allowed to perform (and should be evaluated as competent to perform) advanced intraoral procedures (often referred to as "expanded functions" or "expanded duties") under appropriate levels of dentist supervision. Only four tasks were deemed by survey respondents to be of a complexity beyond the competency level of Category C assistants (these tasks can be found in Category D). Therefore, all but the most complex intraoral dental assisting procedures should be within the scope of practice and the competency of Category C assistants.

Recommended **Education/Training** Requirements for Category C

The ADAA/DANB Alliance believes that the two primary pathways by which a dental assistant can become eligible to sit for the full CDA Exam (consisting of RHS, ICE and GC component exams) or the General Chairside (GC) component of the CDA Exam are also excellent models to use in establishing training and education requirements for assistants performing tasks in Category C.

Pathway I centers on graduation from a dental assisting program accredited by the ADA's Commission on Dental Accreditation. As previously noted, the ADAA/DANB Alliance urges expansion of access to these programs through alternative education offerings or other means.

Pathway II is for on-the-job-trained dental assistants; in addition to a high school diploma, 3,500 hours of full- or part-time work experience accumulated over a period of 24 to 48 months is required.

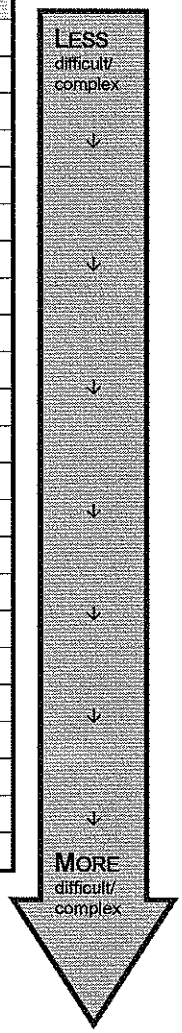
Studies conducted by DANB have shown that candidates using each of these two pathways (Pathways I and II) to qualify to take the CDA Exam (or the GC component of the CDA Exam) pass the exam at rates that are statistically equivalent to candidates using the other pathway; therefore, the

[11] DANB. *DANB's State Fact Booklet, Volume 2* (Chicago: DANB, 2004).

ADAA/DANB Alliance believes that education and training obtained through either of these pathways is appropriate to prepare dental assistants to perform the tasks in Category C. (A 2002–2003 DANB research study revealed that the average pass rate of CDA or GC examinees who were graduates of non-ADA-accredited dental assisting education programs was *not* statistically equivalent to the average pass rate of graduates of ADA-accredited programs.)[12]

Table C: Tasks Assigned to Category C (listed in ascending order, from most basic to most complex)

Survey Task Number	Task Name	Rasch Difficulty Measure*
62	Remove periodontal dressings	0.52
42	Place orthodontic separators	0.54
45	Place and remove matrix bands	0.54
13	Remove sutures	0.69
63	Place post-extraction dressings	0.73
61	Remove permanent cement from supragingival surfaces	0.78
9	Perform coronal polishing procedures	0.84
8	Monitor and respond to post-surgical bleeding	0.90
14	Dry canals	0.92
49	Perform vitality tests	0.94
23	Evaluate radiographs for diagnostic quality	1.10
40	Apply pit and fissure sealants	1.17
59	Monitor nitrous oxide/oxygen analgesia	1.20
50	Place temporary fillings	1.21
15	Tie in archwires	1.31
6	Place and remove retraction cord	1.45
47	Fabricate and place temporary crowns	1.46
43	Size and fit stainless steel crowns	1.66
35	Place periodontal dressings	1.69
29	Size and place orthodontic bands and brackets	1.72
34	Place liners and bases	1.73
55	Remove temporary fillings	1.81
46	Take final impressions	2.18



* The Rasch Difficulty Measure is a numeric value that corresponds to the survey respondents' perceptions of the level of skill required to perform a task competently, as determined by respondents' assignment of the task to a skill category in the survey.

[12] "CDA/GC Pilot Pathway IV Study Reviewed and Evaluated," *Certified Press* 22, no. 2 (2004): 6.

Recommended **Testing/Credentialing** Requirements for Category C

The ADAA/DANB Alliance recommends that the oral healthcare community make use of ALL of the following tools for measuring the competency of Category C assistants:

- *Certified Dental Assistant (CDA) credential.* Passing of DANB's CDA Exam and maintenance of a current DANB CDA credential. (Note that maintenance of the CDA credential requires 12 hours of continuing dental education per year and current CPR certification.)

  It is important to note that, within the context of these recommendations, those dental assistants who are qualified to perform Category B tasks would already have demonstrated appropriate knowledge levels by passing DANB's RHS and ICE Exams, and would need only to pass DANB's GC Exam to earn the CDA credential (as long as the RHS, ICE, and GC components have all been passed within a five-year period).

  The ADAA/DANB Alliance believes that some state-specific registered dental assistant (RDA) examinations and credentials may be valid measures of competency and does not oppose their continued use in states where they are currently available during a transition to a uniform national model. However, the ADAA/DANB Alliance believes that, ultimately, uniform national credentials, such as the CDA credential, will more effectively simplify interstate mobility of dental assistants, enhancing recruitment and retention.

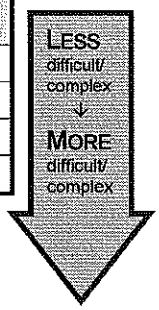
- *CPR certification.* CPR certification prepares dental assistants to recognize and/or respond to medical emergencies, at least at the basic level; it is a prerequisite to sit for the CDA Exam and for annual renewal of the CDA credential.

(4) Category D

Category D corresponds to highly skilled dental assistants who have received specialized training and education in the performance of specific advanced functions. Of the 62 tasks categorized in the final survey analysis, only four fall into Category D.

Table D: Tasks Assigned to Category D (listed in ascending order, from most basic to most complex)

Survey Task Number	Task Name	Rasch Difficulty Measure*
70	Place stainless steel crowns	2.33
20	Perform supragingival scaling	2.76
51	Carve amalgams	3.09
33	Place, cure and finish composite resin restorations	3.40



* The Rasch Difficulty Measure is a numeric value that corresponds to the survey respondents' perceptions of the level of skill required to perform a task competently, as determined by respondents' assignment of the task to a skill category in the survey.

The tasks that are found in Category D are complex intraoral tasks that involve a high degree of skill, precision, and manual dexterity. While a few states allow dental assistants to perform one or more of these functions, each of these tasks is currently restricted from delegation to dental assistants in some states.

If dental assistants are allowed by law to perform these tasks and the dentist-employer wants to delegate these tasks to dental assistants, the ADAA/DANB Alliance recommends that only dental assistants who have earned the CDA credential and have significant experience performing tasks in Category C should be allowed to receive prescribed on-the-job training in these Category D tasks or to enroll in formal education covering the performance of these tasks. The ADAA/DANB Alliance recommends that dental assistants be allowed to perform these tasks only if they have received specific advanced clinical training in the performance of these tasks and have successfully demonstrated competency in a hands-on clinical examination, developed by a nationally accredited testing agency in accordance with nationally accepted psychometric standards.

E. Dental Assisting Tasks Not Included in the DANB/ADAA Core Competencies Study

In selecting a finite set of tasks to study (62 tasks, net of eight additional tasks that were omitted from the final analysis because of statistical misfit), it has not been the intention of the ADAA/DANB Alliance to suggest that dental assistants' activities should be limited to the performance of only these tasks; rather, the tasks selected for the study were determined to be representative of a broad range of dental assisting core competencies.

Some state dental practice acts attempt to define a dental assistant's scope of practice by specifically enumerating the tasks that dentists may delegate to dental assistants, while others define dental assisting practice in broad terms and allow the dentist to delegate any task that is not expressly forbidden. Both of these approaches to defining the scope of practice of dental assistants present certain challenges, and can be more restrictive or more permissive than intended if the respective lists of allowable or prohibited tasks are not developed with the utmost care. In addition, even when dental assisting scope of practice is defined effectively for current dental office conditions, changes in the science of oral healthcare over time may give rise to the need to permit or prohibit additional tasks and functions.

The uniform national dental assisting model proposed by the ADAA/DANB Alliance can be a useful tool in resolving the difficulties inherent in defining the scope of practice for dental assistants. The proposed model describes each category of dental assisting tasks and defines the education, experience, and credentials that a dental assistant should have to perform the tasks in each category, thereby providing a framework within which to evaluate the appropriateness of any new or previously omitted task for delegation to dental assistants. Further research can be conducted to determine the category (Category A, B, C, or D) to which additional dental assisting tasks not previously studied should be assigned.

F. Supervision of Dental Assistants by Licensed Dentists

An important consideration in the discussion of the delegation of tasks to dental assistants is that of supervision of dental assistants by their dentist-employers. The ADA has identified four levels of supervision for dental auxiliaries, including dental assistants, which it defines in its "Comprehensive Policy Statement on Allied Dental Personnel" (2002:400), which is part of its *Current Policies*;[13] however, these definitions have not been uniformly adopted by the dental boards of every U.S. state or district. In furtherance of the establishment of a uniform national model for dental assisting, the ADAA/DANB Alliance encourages the uniform adoption of the ADA's definitions for the various levels of supervision and recommends that the level of supervision required to perform each dental assisting task be given careful consideration by communities of interest.

[13] ADA. *Current Policies: Adopted 1954-2003,* online version (Chicago: ADA, 2003), 33-34.

G. Proposed Uniform National Model for the Dental Assisting Profession

The following table summarizes the ADAA/DANB Alliance's proposed uniform national model for the dental assisting profession, as determined by the responses of survey participants, and the recommended requirements for each level, progressing from the entry-level at the bottom to the most advanced level at the top.

Table G: Proposed Uniform National Model for the Dental Assisting Profession

Suggested Title	Recommended Education/Training	Recommended Experience	Recommended Credentials	Summary of Allowable Tasks
Expanded Functions Dental Assistant (Category D in this paper)	Specialized formal training within an ADA-accredited program or state board-approved course	Several years' experience working as a CDA and performing intraoral tasks AND Prescribed on-the-job training by licensed dentist in the specific functions to be performed	CPR Certification Clinical examination (to be developed by a nationally accredited testing agency in accordance with nationally accepted psychometric standards)	Four tasks (See Table D): Complex intraoral tasks involving a high degree of skill, precision, and manual dexterity
	Education and experience required.			
Certified Dental Assistant OR *Registered Dental Assistant** (Category C in this paper)	Graduation from an ADA-accredited dental assisting program	Two or more years' full-time or four or more years' part-time experience, including on-the-job training by licensed dentist	CPR Certification Current DANB CDA credential **(or state-specific RDA credential, if it measures knowledge of these Category C tasks and is developed according to generally accepted psychometric principles and standards)*	23 tasks (See Table C): All but the most difficult and complex intraoral procedures, as allowed by law
	Either education or experience required.			
Dental Assistant (Category B in this paper)	Enrollment in and partial completion of an ADA-accredited dental assisting program OR Graduation from a dental assisting program (non-ADA-accredited)	Up to two years' full-time experience or up to four years' part-time experience, which includes on-the-job training by licensed dentist	CPR Certification DANB RHS Exam DANB ICE Exam Jurisprudence Exam (where available) Basic Dental Assisting Skills Exam (where available) Future national basic dental assisting skills and jurisprudence exams, to be developed (if deemed appropriate)	33 tasks (See Table B): All extraoral tasks, except those requiring specialized knowledge or skill Chairside assistance during dental procedures Radiography Infection control procedures Emergency response Limited intraoral procedures
	Either education or experience required.			
Entry Level Dental Assistant (Category A in this paper)	High school diploma	In-office orientation, or verbal/written instructions of licensed dentist	None	Two tasks (See Table A): The most elementary dental assisting tasks

The ADAA/DANB Alliance would like to state unequivocally that dental assistants are members of an oral healthcare team who work under the supervision of dentists (or under the supervision of dental hygienists, in states where supervision of dental assistants by dental hygienists is permitted by law) and that no future is envisioned in which the role of the dental assistant will evolve into that of an independent provider of dental services. Indeed, the very term "dental assistant" denotes a person who gives aid to another person in the performance of dental tasks and is inconsistent with the notion of practicing independently. The interest of the ADAA/DANB Alliance in defining and standardizing delegable functions has always been predicated on the assumption that these functions would be performed under appropriate levels of supervision, as determined by competent authorities within the oral healthcare community.

H. Alliance Research Distribution

The ADAA/DANB Alliance will serve the public interest by disseminating information on the results of its research as follows:

1. Proactively, to federal-level health agencies (such as the Office of the Surgeon General and the U.S. Department of Health and Human Services), state boards of dentistry, state dental associations, organized dentistry (i.e. professional membership organizations representing various groups of dental professionals), oral health advocacy groups (such as Oral Health America), dental-related corporations, dental schools and dental assisting programs accredited by the ADA's Commission on Dental Accreditation, other dental assisting programs (not ADA-accredited), high school vocational education coordinators, and other groups (policymakers, public health organizations) as appropriate.
2. On request, to members of the oral healthcare team (and to dentists in particular), high school career counselors, consumers, and others not already listed.

I. Recommendations and Next Steps

The dental assisting community, as represented by the ADAA and DANB, has taken the first step in the process of establishing a uniform national model for the dental assisting profession by developing and proposing a reasonable set of dental assisting guidelines, based on empirical, statistically analyzed data derived from survey responses of those most qualified to determine the appropriateness of such guidelines: dentists, dental assistants, and dental assisting educators.

The next step will involve receiving input from other communities of interest, pursuing further areas of research that might provide additional useful data, and synthesizing such input and data into a final proposal that will be submitted to the appropriate communities of interest with the authority to enact change.

In considering the roles of the various communities of interest in the proposed endeavor, the ADAA/DANB Alliance has developed a set of recommendations for each group. Summaries of each of these recommendations are set forth below.

1. For Dental Practitioners and Dental Organizations

The ADAA/DANB Alliance recommends that dentists continue to take an active interest in the issue of a uniform national model for the dental assisting profession and that they voice their support for the establishment of such a model in their local, state, and national dental associations. The ADAA/DANB

Alliance also encourages national dental associations to sponsor further research into the role of dental assistant education and credentialing in improving the delivery of oral healthcare services, including research into the development a formal training protocol and standardized educational materials for use by dentists who conduct on-the-job training of dental assistants, with the goal of elevating and standardizing such training.

2. For Dental Assisting Educators

The ADAA/DANB Alliance recommends that sponsors and directors of ADA-accredited dental assisting programs continue their efforts to expand access to these programs through alternative education programs, including distance-learning programs. The ADAA/DANB Alliance also recommends that those dental assisting programs that are not currently accredited by the ADA's Commission on Dental Accreditation pursue this accreditation.

3. For Legislators, State Boards of Dentistry, and Other Policymakers

The ADAA/DANB Alliance recommends that policymakers and regulators take the proposed uniform national dental assisting model set forth in this paper under advisement as they periodically evaluate dental assisting scopes of practice and that they open the floor for discussion of this matter in their respective spheres of influence. The ADAA/DANB Alliance also recommends that, in those states that allow individuals who have not completed ADA-accredited dental assisting programs to work as dental assistants, state dental boards work with dental educators to develop a formal in-office training protocol and standardized educational materials to be used for on-the-job training of these dental assistants.

4. For Federal Health Agencies and Oral Health Advocacy Groups

The ADAA/DANB Alliance recommends that federal health agencies and independent oral health advocacy groups endorse the uniform national model for dental assisting proposed by the ADAA/DANB Alliance and, to the extent possible, provide funding for further research.

5. For Dental Assistants

The ADAA/DANB Alliance recommends that dental assistants support efforts to elevate their profession by becoming DANB-Certified and by contributing to the discussion of a uniform national dental assisting model through involvement in local, state, and national dental assisting associations.

6. For DANB and the ADAA

The members of the ADAA/DANB Alliance recommend that their parent organizations, DANB and the ADAA, continue their work in support of the establishment of a uniform, nationally recognized model for the dental assisting profession that can also serve as a national career ladder for dental assistants. Specifically, the ADAA/DANB Alliance recommends that each organization (1) disseminate this paper to the appropriate authorities and other communities of interest, (2) provide additional information to communities of interest upon request, (3) pursue further research as recommended by the *Position Paper of the ADAA/DANB Alliance Addressing a Uniform National Model for the Dental Assisting Profession*, where feasible and appropriate, and (4) publicize future developments in the establishment of a uniform national dental assisting model to the oral healthcare community and the general public.

J. Conclusion

The ADAA/DANB Alliance believes that a uniform national dental assisting model has the potential to effect the following positive changes: (1) enhance patient safety and improve public attitudes about dental treatment, (2) mitigate the risk of errors in the dental office and the associated costs, (3) enhance efficiency of the dental team, (4) enhance recruitment and retention of qualified dental assistants, (5) through increased efficiency and reduced turnover of dental assistants, augment the capacity of the oral healthcare services infrastructure, and (6) promote and simplify participation in public health volunteer programs designed to reach underserved segments of the population. It is the position of the ADAA/DANB Alliance that the acceptance of a uniform national model for dental assistants will help to maximize access to oral healthcare services for all segments of the U.S. population.

K. For More Information

For more information about any topic covered in this Executive Summary, please contact:

DANB
Cynthia C. Durley, MEd, MBA
Executive Director
Dental Assisting National Board, Inc.
676 N. St. Clair, Suite 1880
Chicago, IL 60611
1-800-FOR-DANB
cdurley@danb.org
www.danb.org

ADAA
Anna Nelson, CDA, RDA
ADAA/DANB Alliance Co-Chair
American Dental Assistants Association
35 E. Wacker, Suite 1730
Chicago, IL 60601
1-312-541-1550
adaa1@aol.com
www.dentalassistant.org

To order a copy of the entire *Position Paper of the ADAA/DANB Alliance Addressing a Uniform National Model for the Dental Assisting Profession*, please contact DANB.

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Appendix A

Position Paper
of the ADAA/DANB Alliance
Addressing Dental Assisting Core Competencies

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Appendix H

Critical Issues in Dental Hygiene

Development and Status of the Advanced Dental Hygiene Practitioner

Rebecca L Stolberg, RDH, MS; Colleen M. Brickle, RDH, RF, EdD; Michele M. Darby, BSDH, MS

Abstract

Purpose: Advanced dental hygiene practitioners (ADHPs), members of the oral health care team, bring care to persons disenfranchised from adequate dental services. ADHPs are licensed and provide the traditional educational, preventive and therapeutic dental hygiene services, plus diagnostic, prescriptive and minimally invasive restorative services. ADHPs work in collaboration with all members of the dental team, referring patients in need of services outside of their scope directly to dentists or other health care providers.

Keywords: Advanced Dental Hygiene Practitioner (ADHP), mid-level provider, Dental Therapist, Advanced Dental Therapist

This study supports the NDHRA priority area, **Health Services Research:** Investigate how alternative models of dental hygiene care delivery can reduce health care inequities

Introduction

In March 2009, President Barack Obama initiated his first step to reform the United States health care system by hosting a task force representing many stakeholders in health care. Unfortunately, dentistry and dental hygiene were not involved.[1] While dental spending topped $100 billion in 2008,[2] there are "profound and consequential oral health disparities within racial and ethnic minorities, rural populations, individuals with disabilities, the homeless, immigrants, migrant workers, the very young and the frail elderly."[3] As we continue to educate our nation's leaders on the importance of oral health as part of the health care reform agenda, it is dentistry and dental hygiene's ongoing responsibility to work collaboratively to eliminate access to care deficiencies. The purpose of this paper is to explain the need for the advanced dental hygiene practitioner (ADHP) as proposed by the American Dental Hygienists' Association (ADHA), and to report on the status of its implementation.

Oral diseases have social, psychological, physical and economic costs, both to individuals and society as a whole. When oral diseases are left untreated, a person's overall health can be seriously affected and may even cause death, as illustrated by the case of young Deamonte Driver.[4] Without the ability to pay for dental care, few providers willing to serve public program enrollees, and the ever present cultural barriers that exist in diverse societies like the United States, many people do not receive needed preventive or restorative dental care. Some postpone treatment until they have nowhere else to go, other than a hospital emergency room (ER). A recent study of patient visits to 7 Twin Cities' ERs found over 10,000 ER visits for oral problems at a cost of more than $4.7 million.[5] In Spokane, Washington, an average of $2.9 million was spent for dental care in local hospitals per year.[6] California emergency departments log more than 80,000 visits a year for preventable dental conditions, especially those living in rural areas and ages 18 to 34.[7] Unfortunately, the extent of care rendered for dental needs in an ER is likely to be pain medication and/or antibiotics, with advice to follow-up with a dentist. The patient does not receive a complete oral examination, treatment to eliminate the problem and follow-up. Often, patients will make repeated visits to an ER because there is no other dental home for affordable care (over 20% of the Twin Cities patients returned at least twice for their dental problems).[5]

In the 2003 National Oral Health Call to Action, the Surgeon General stated:

"The burden of oral infections and conditions that affect the mouth, face and jaws is so broad and

extensive that the dentists can't do it alone; the hygienists can't do it alone; surgeons can't do it alone; government agencies can't do it alone; and the average person can't do it alone. It will take all of us working together to continue to make progress in advancing the oral health of this country."[8]

Poor oral health can adversely affect all aspects of life. Annually, children miss 51 million hours of school due to dental problems, and they can't learn in school if they are in pain. Similarly, adults lose 164 million work hours annually due to visits to the dentist to treat periodontal illnesses or to repair teeth.[1] Regardless of age, persons with dental problems may also experience challenges with eating, nutrition, speaking and self image.

Health care policy, practice and education must evolve concomitantly to meet societal needs and expanding demands. The United States population is expected to grow by 20% by 2020, with most of that growth in minority populations.[9] Because of community water fluoridation, fluoride dentifrices and preventive dental care, people age 65 or older have retained more of their teeth. However, for some, their need to maintain optimal oral health is often complicated by multiple chronic conditions such as cardiovascular diseases, diabetes, stroke, respiratory illness, obesity and cancer. Creation of integrated health care systems that identify and remove barriers to quality, cost effective care and efficient use of existing manpower resources are necessary. For example, the ADHA Master File Survey of Dental Hygienists' in the United States in 2007 found over 150,000 licensed dental hygienists in the United States, with 130,000 actively practicing. Twenty-five percent hold licenses in more than 1 state.[10] By 2016, a 30% increase in licensed dental hygienists is anticipated.[11] This increase significantly exceeds the expected 9% increase of licensed dentists.[12] The December 2009 Washington State's Oral Health Workforce document shows an expected general population growth of 24% between now and 2025, with an 80% growth for seniors during this time frame. It also estimated that 50% of current dentists may retire within 15 years.[13]

Background for the ADHP

In 2004, the ADHA recognized the need to develop a mid-level practitioner, following the Surgeon General's Call to Action Report. The ADHA termed this practitioner an "advanced dental hygiene practitioner," similar in concept to the advanced nurse practitioner, and the ADHA House of Delegates recommended a task force to develop the model. After several years of work by a task force, advisory committee and public commentary, the ADHP Competency Document was published by ADHA in 2008.[14] This document builds on the strong foundation and accreditation standards of existing dental hygiene education, established clinical practice standards, and the dental hygienists' unique orientation toward primary care and collaboration with dentistry. With specially designed master's level education, an ADHP, as a licensed provider of primary care within a defined scope of practice, will be able to serve the public directly and safely and is well-placed to help dentistry fill the void in care that currently exists. ADHPs will focus on providing preventive, therapeutic and referral services within community clinic settings, school clinics, long-terms care facilities, hospitals and primary care clinics.[15] In the collaborative role, the ADHP would consult with dentists when necessary and guide the patient into treatment that requires the expertise of a licensed dentist.[16] While dental hygienists are considered the preventive and nonsurgical periodontal care experts, many states have also incorporated basic restorative services into their legal scopes of practice. Twenty-nine states allow for direct access to dental hygienists, 15 states directly reimburse registered dental hygienists under Medicaid and 20 states allow dental hygienists to perform some type of restorative dentistry, indicating that many states are well positioned to move towards the ADHP.[17] Given that the 2007 National Health and Nutrition Examination Survey reports that the highest prevalence of untreated decay is in adults ages 20 to 64,[15] basic restorative as well as preventive and periodontal therapy by an ADHP will be necessary to help dentistry expand access to care.

The ADHP at the Master's Degree Level

Because Americans define the baccalaureate degree as a college education, it is important to move dental hygiene closer to the norm of other health professionals with comparable responsibility. To earn respect, societal trust and professional accountability within the multidisciplinary health care system, the ADHP must present educational credentials similar to other mid-level providers, i.e. the nurse practitioner, physical therapist and occupational therapist.[14,16] Dentally underserved and unserved populations are likely to have the most complex health histories and suffer chronic medical and dental conditions. The formal education necessary to effectively and safely provide care to persons with advanced medical and dental conditions is beyond that currently in the already crowded curricula of associates or baccalaureate dental hygiene degree programs. In addition, these accredited programs do not prepare graduates for

Table I: Resources on the Minnesota Advanced Dental Hygiene Practitioner Effort

Full text of Senate File 2083
https://www.revisor.mn.gov/bin/bldbill.php?bill=ccrsf2083.html&session=ls86
Metropolitan State/Normandale Advanced Dental Therapy Program
http://www.metrostate.edu/msweb/explore/cnhs/index.html
ADHP Competencies
http://www.adha.org/downloads/competencies.pdf
OHP Workgroup Report/Recommendations
http://www.health.state.mn.us/healthreform/oralhealth/
Minnesota Public Radio Story
http://minnesota.publicradio.org/display/web/2009/05/12/dental_practitioner_compromise

mid-level provider competencies, such as the ability to triage dental patients, manage cases and reimbursement mechanisms, work independently but collaboratively in isolated settings, measure outcomes of their care in relation to quality, safety and productivity using qualitative and quantitative research skills.[18] A graduate degree is necessary to develop advanced practitioner competencies, which also carry the burden of additional legal liabilities.[16]

Implementation Status of the ADHP in Minnesota

Minnesota faces a serious health care crisis because many Minnesotans are unable to obtain treatment for dental disease, especially those who are low-income, disabled, elderly, disadvantaged or living in isolated rural areas. Over half of Minnesota's counties are designated dentist shortage areas, and most counties have seen a steady decline in dental care access for low-income people on state public programs.[19] Although the problem of access is multifaceted, an estimated 60% of Minnesota's dentists may retire in the next 15 to 20 years.[20] The dental workforce in rural areas has a larger percentage of dentists over the age of 55, magnifying the loss of dentists expected to retire in the near future. The geographic distribution of Minnesota dental hygienists more closely matches the distribution of population than does the distribution of dentists, both of which are more concentrated in urban areas.[21]

Since 2001, with the passage of statutory language known as "Limited Authorization for Dental Hygienists,"[22] Minnesota's collaborative practice dental hygienists are uniquely qualified and positioned to meet the oral health needs of the underserved. Minnesota has demonstrated success and easy matriculation of dental hygienists in providing dental hygiene services by establishing collaborative practices and becoming certified in performing basic restorative services. Therefore, it was a natural progression for Minnesota dental hygienists and institutions of higher education to lead the nation in development and implementation of an ADHP program at the master's degree level.

Table II: Minnesota's Dental Hygiene Advanced Practitioner Timeline

- 2000–2003 – Heightened awareness to enhance the oral health workforce capacity
- 2004 – First Draft of the ADHP Competencies by the American Dental Hygienists' Association
- 2005 – Normandale Community College and Metropolitan State's partnership
- 2006 – MnSCU New Programs' application
- 2007 – Master's program advisory committee formed
- 2008 – ADHP competencies approved
- 2009 – Advance dental therapist master's program begins

In 2005, a partnership formed between Metropolitan State University and Normandale Community College that allowed these institutions to take a pivotal leadership role in advancing the concept of a new mid-level dental hygiene practitioner model. The new programs proposed were a baccalaureate degree completion program, a post-baccalaureate certificate program and an oral health care practitioner master's of science program based on the ADHP Competencies Document. The Minnesota State Colleges and Universities new programs received final approval in November 2006. During the application process, letters of support documented the need for the development of these new programs. Alliances made with community partners paved the way for building valuable, sustainable relationships with influential community leaders and organizations that also saw the value in an ADHP. Community partners voiced a common theme that

Table III: Minnesota's Dental Therapist and Advanced Dental Therapist Legal Scopes of Practice

Dental Therapist		Advanced Dental Therapist
Under general supervision:	Under indirect supervision:	Under general supervision as defined in the written collaborative management agreement:
• Oral health instruction • Nutritional counseling and dietary analysis • Preliminary charting of the oral cavity • Taking radiographs • Mechanical polishing • Application of topical preventive or prophylactic agents • Pulp vitality testing • Application of desensitizing medication • Resin fabrication of athletic mouthguards • Placement of temporary restorations • Fabrication of soft occlusal guards • Tissue conditioning and soft reline • Atraumatic restorative therapy • Dressing changes • Avulsed tooth reimplantation • Administration of local anesthetic • Administration of nitrous oxide	• Emergency palliative treatment of dental pain • Placement and removal of space maintainers • Cavity preparation • Restoration of primary and permanent teeth • Placement of temporary crowns • Preparation and placement of preformed crowns • Pulpotomies on primary teeth • Indirect and direct pulp capping on primary and permanent teeth • Stabilization of reimplanted teeth • Extractions of primary teeth • Suture removal • Brush biopsies • Repair of defective prosthetic devices • Recementing of permanent crowns	• All services and procedures described for the Dental Therapist • Oral evaluation and assessment of dental disease • Formulation of an individualized treatment plan authorized by the collaborating dentist nonsurgical extractions of permanent teeth (limitations) • Refer patients to receive any needed services that exceed the scope of practice • Provide, dispense, and administer analgesic, anti-inflammatory, and antibiotic medications

the current dental workforce simply cannot meet the oral health needs of Minnesotans, especially for vulnerable people (Table I).

The formation of a strong strategic partnership between the Minnesota Health Care Safety Net Coalition, the Minnesota Dental Hygienists' Association and the Minnesota State Colleges and Universities resulted in significant legislation moving forward in 2008 and 2009 that would legitimize the ADHP (Table II). Through the efforts of these 3 organizations, nearly 60 other organizations signed on to advocate for legislation that would establish the ADHP in Minnesota. Countless hours were invested keeping lines of communication open, formulating testimony, delegating responsibilities and sharing negotiation tactics during mounting opposition from the opponents of this legislation that sought to improve access to dental care for thousands of Minnesotans.

In a last minute compromise, the Minnesota legislature established 2 levels of dental therapists, a basic level that requires at least a bachelor's degree and an advanced level that requires at least a master's degree (Table III).[23] The law established the requirements for licensure of dental therapists and certification of advanced dental therapists, but did not dictate to educational institutions what their admission requirements should be or how to structure their programs. Different educational institutions may establish different types of programs, as long as the programs appropriately educate students to the necessary level of competency. Flexibility in accommodating a range of educational backgrounds will add to the diversity, opportunities and innovation in the dental workforce.

Metropolitan State University established a master's program that combines both the basic level of dental therapist training and the additional education needed to be an advanced dental therapist. Students in this program will become licensed as a basic dental therapist as part of a longer curriculum that will lead to advanced practice certification. Metropolitan State University has also chosen to limit program admission to existing, experienced, baccalaureate-prepared licensed dental hygienists. Increasing the likelihood of employability, graduates will be eligible for licensure and certified as advanced dental therapists after completing clinical hours being specified by the Board of Dentistry,

so that they can practice both dental therapy and dental hygiene and expand dental services where needed.

Implementation Status of the ADHP in Washington State

Eastern Washington University (EWU) expects to pilot an ADHP program for those who live on and near tribal lands. EWU's close proximity and relationships with multiple tribes places it strategically and affords the ability to perform portions of the training in rural tribal clinics. EWU Department of Dental Hygiene offers a master's degree in dental hygiene as an entirely web-based program reaching students within their own communities and promoting their acceptance into local health care networks. An additional ADHP emphasis area has been approved and is ready for implementation, should funding occur. The curriculum reflects that of the ADHA's, and is a 2 year curriculum with the entire first year web-based, making it more accessible for working or rural dental hygienists via distance education technology.

The 1999 Oral Health Survey of American Indian and Alaska Native Dental Patients found that American Indians have inadequate access to preventive and restorative dental care. It also found a tremendous backlog of dental treatment needs among American Indian patients.[24] One third of American Indian children report missing school because of dental pain. Moreover, 25% of American Indian children avoid laughing or smiling, while 20% report difficulty sleeping because of dental problems.[24] In general, American Indians have twice as much untreated dental caries as white people, and have diabetes at a rate 190% higher than the general United States population.[24] Washington dental clinics serving primarily American Indians are overwhelmed with demands for restorative dental care and thus have fewer resources for preventive care.[25] A dentist hired by a regional tribal wellness center's dental clinic conducted oral examinations on 3 high school students during the fall of 2008. In these 3 American Indian students alone, the dentist found $15,000 worth of untreated dental problems. In addition, the center searched for over 10 months before finding a part-time dental director for its dental clinic (Pokotas, personal communication, March 2009). While the clinic needs a full-time dentist, this goal has not yet been achieved. Although not documented in the literature, other tribal dental clinic directors in Eastern Washington have experienced similar problems with untreated needs as well as a shortage of dental care providers.

Licensed Washington dental hygienists are already well prepared to provide quality basic restorative services, as this has been legal for decades. With additional education, ADHPs will also be educated in case management, health care policy and working with diverse populations and collaboratively with other health care professionals. The limited professional workforce available to staff community health centers remains a critical concern in Washington. Statistics document that only 2% of the nation's dentists work in health centers, with rural health centers particularly vulnerable.[26] Health centers are ideal settings for ADHPs to practice, and ADHPs should be cost effective for the health centers.

Washington ADHPs will receive training in rural areas and treat diverse populations close to where they live and work. ADHPs will develop research and scientific backgrounds to allow them to make evidence-based decisions and provide oral health care within their defined scope of practice. While tribal partnerships will be vital, the ADHP will also collaborate with the entire health care team, oral health coalitions, public health districts and various community-based safety-net organizations. EWU faculty and dentists do not view this program as re-defining the scope of dental hygiene practice. Rather, it builds on the already successful role of traditional and expanded function dental hygienists. The choice to pursue the ADHP master's degree would be up to the dental hygienist, much as a dentist chooses to specialize.

Documented Effectiveness of Practitioners Similar to the ADHP

Globally, the idea of a mid-level practitioner is not a new concept. New Zealand led the world in 1921 with the preparation and implementation of dental nurses (now known as dental therapists).[28] While many countries have termed their practitioners "dental therapists," the roles and responsibilities assigned to them are similar to those proposed by ADHA for the ADHP. In addition, while most dental therapists began by treating only children, their value soon expanded to include adult care as well. These 52 countries' dental therapists share goals with the ADHPs, i.e., improved dental care access, cost reduction and oral health for all.[27] Similarly, the effectiveness and safety of dental therapists have been documented in other countries by the extent to which they perform quality care and satisfy patients.[27] Furthermore, New Zealand dental therapists have been highly valued by the public for over 80 years.[27] Care must be taken to avoid preparing new dental workforce personnel that are not employable or that would be poorly un-

derstood by the public and other health professionals. Recognition and employability are clear advantages favoring the ADHP over other models that have been proposed.

Working collaboratively with a dentist does not mean substituting the ADHP for a dentist – both have defined and different scopes of practice. Like any mid-level practitioner, the intent of the ADHP is to increase efficiency in the oral care delivery system and availability of primary care and referral for persons not served in the existing system. Collaboration with other health care and dental providers is key for providing access to quality care, with improved health indicators, cost containment and patient satisfaction as additional desirable outcomes.

In multiple settings, quality of care provided by mid-level practitioners has been more than satisfactory. For example, in Australia, more restorations placed by dentists were defective than those placed by dental therapists. Also, diagnosis and treatment planning decisions were comparable between the 2 provider entities.[27] A study of Canadian dental therapists revealed that the quality of their restorations was better, on average, than those by dentists, and stainless steel crowns were comparable in quality. Canada has also documented that the use of dental therapists is cost-effective.[27]

In the United States, dental health aide therapists (DHATs) in Alaska have been performing preventive and restorative therapies on inhabitants of rural Alaskan villages since 2005. DHATs work using a tele-medicine cart connected via secured internet to the hub clinics and their supervising dentists.[28] A quality assessment of DHATs and chart audits found DHATs to be performing safely, performing functioning within the scope of training and meeting the standard of care of the dental profession.[29] Currently, DHATs are only allowed to practice in clinics of the Native Alaska Tribal Health consortium in Alaska. In both California and Iowa, the quality of care rendered and the safety of care provided by expanded function dental hygienists in nontraditional settings has been documented.[30,31]

Conclusion

Oral health is essential for whole body health. Limitations to professional dental hygiene services and other primary dental services compromise the health of people who have been disenfranchised by the current system of dental care delivery. The 2009 U.S. Oral Health Workforce Summary states more than one third of the United States population lacks dental coverage. In the early 2000s, there were less than 2,000 dental health professional shortage areas. In 2008, there were over 4,000 dental health professional shortage areas.[32] If the evidence and mechanism for implementation are known, society cannot ignore the people who look to dental professionals for leadership, expertise and humanity.

As learned in Minnesota, a strong professional organization and support of other stakeholders can be a powerful influence on public policy, increasing interest of third party stakeholders in oral health policy issues. Dictated by codes of ethics, advocacy requires active involvement and ongoing commitment to the health of all people. Through ADHA and its partners, a collaborative network will continue a unified voice on behalf of the uninsured and underinsured individuals until access to oral health care and other health care policy changes occur. The end point of advocacy is the health and welfare of the public.[33]

Any new model of care will create anxiety and opposition from those who are satisfied with, and benefit from, the existing model. ADHPs supplement rather than compete with dentists, as they will be treating patients unlikely to seek care in a private dental practice.[28] As learned in medicine, no single program or oral health provider can do it all. To resolve the access to care crises, a team must include dentists, dental hygienists, educators, nutritionists, nurses, physicians and other health care professionals who work together to identify and meet the needs of populations. As leaders, rather than continuing to promote the status quo, we must design and test new ways to improve oral health outcomes in a manner that does not discriminate. The ADHP, building upon the already established roles of licensed dental hygienists, can collaborate with dentists and other health professionals to reduce existing health disparities. Moving beyond traditional modes of practice will enable improved quality of life for all.

It is likely that the ADHP provider will save critical health care dollars by making care accessible for those who currently receive no care or, when in pain, seek costly emergency room care. Further cost savings are obvious when considering the preventive, educational and primary care procedures provided by ADHPs that could lead to fewer complex dental problems, reductions in the use of sick days and increased workforce productivity. More importantly, preventive oral health care for children can lead to improved nutrition, positive self image and greater success in school.

In the age of health reform, the dental hygiene profession, in conjunction with dentistry, is well poised to deliver cost-effective, quality, primary care that will aid the United States taxpayer now and in the future. In addition to Minnesota and Washington, other states and higher educational institutions are planning ADHP graduate programs, e.g., Connecticut, New Hampshire, Idaho and New Mexico.

Rebecca Stolberg, RDH, MSDH, is Department Chair of Dental Hygiene at Eastern Washington University. Colleen M. Brickle is Dean of Health Sciences at Normandale Community College. Michele Leonardi Darby, BSDH, MS, Eminent Scholar, is University Professor and Chairman, Gene W Hirschfeld School of Dental Hygiene, Old Dominion University, Norfolk, VA.

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Appendix I

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

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

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

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).

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.

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.

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.

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.

Assessments of how well they care for particular populations

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.
- 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.

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, 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.

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.

Attitude of dentists

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

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.

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.

Appendix J

DH curriculum – minimum of 2 academic years in a CODA accredited institution.
The following subject areas must be included:

2-8 The curriculum must include content in the following four areas: general education, biomedical sciences, dental sciences and dental hygiene science....

2-9 General education content must include oral and written communications, psychology, and sociology

2-10 Biomedical science content must include content in anatomy, physiology, chemistry, biochemistry, microbiology, immunology, general pathology and/or pathophysiology, nutrition and pharmacology.

2-11 Dental sciences content must include tooth morphology, head, neck and oral anatomy, oral embryology and histology, oral pathology, radiography, periodontology, pain management, and dental materials.

2-12 Dental hygiene science content must include oral health education and preventive counseling, health promotion, patient management, clinical dental hygiene, provision of services for and management of patients with special needs, community dental/oral health, medical and dental emergencies, legal and ethical aspects of dental hygiene practice, infection and hazard control management, and the provision of oral health care services to patients with bloodborne infectious diseases.

2-13 The basic clinical education aspect of the curriculum must include a formal course sequence in scientific principles of dental hygiene practice, which extends throughout the curriculum and is coordinated and integrated with clinical experience in providing dental hygiene services.

2-14 The number of hours of clinical practice scheduled must ensure that students attain clinical competence and develop appropriate judgment. Clinical practice must be distributed throughout the curriculum. .....*The preclinical course should have at least six hours of clinical practice per week. As the first-year students begin providing dental hygiene services for patients, each student should be scheduled for at least eight to twelve hours of clinical practice time per week. In the final prelicensure year of the curriculum, each second-year student should be scheduled for at least twelve to sixteen hours of practice with patients per week in the dental hygiene clinic.*

Example of 2 year ASDH curriculum at a CODA accredited program in Connecticut.
Tuition approximately $30,000/year

DHYG 123 Oral Anatomy and Embryology I 4 credits
DHYG 124 Radiology 3
DHYG 127 Pharmacology for the Dental Hygienist 2
DHYG 129 Clinical Practice I 4
DHYG 130 Clinical Practice II 4
DHYG 140 Introduction to Periodontology 1
DHYG 227 Clinical Practice III 5
DHYG 228 Clinical Practice IV 5
DHYG 230 Local Anesthesia for the Dental Hygienist 1
DHYG 232 Community Dental Health 4
DHYG 233 General and Oral Histo-Pathology 3
DHYG 241 Periodontology 2
DHYG 250 Dental Materials 3
BIOL 106 Elementary Microbiology 4
NUTR 204 Nutritional Biochemistry 3

Total Hours Program Requirements 48

General Education Requirements

BIOL 113 Anatomy and Physiology I 4
BIOL 114 Anatomy and Physiology II 4
ENGL C101 Composition & Rhetoric 3
FYS 101 First Year Seminar 3
MATH 105 Intermediate Algebra 3
SoSc C201 Social Science 3
Soc 101 Principles of Sociology 3

Total Hours for General Education 23

Total Semester Hours 71

Example 4 year BSDH* curriculum at a CODA accredited program in Connecticut.
Tuition varies: four year vs. degree completion program – up to $32,000/year or $15,000 to complete degree through degree completion program.

Students earning a bachelor of science degree in dental hygiene must complete 126–128 credits. Courses include the university core requirements for bachelor's degree students and the required courses listed below. Once students are enrolled in the dental hygiene clinical course sequence (DH 220, 240, 330, 350, 460), they must be enrolled full time.

CH 105	Introduction to General and Organic Chemistry with Laboratory
CS 107	Computers and their Applications
DH 105-110	Introduction to Dental Hygiene I and II
E 105	Composition
E 110	Composition and Literature
HS 101 orHS 102	Foundations of the Western World *or* Western World in Modern Times
M 109 or M 127	Intermediate Algebra or Finite Math
P 111	Introduction to Psychology
SO 113	Sociology
BI 121	General and Human Biology with Laboratory I
DI 215	Principles of Nutrition
DH 214	Oral Facial Structures
DH 215	Radiology
DH 220	Dental Hygiene Concepts I
E 230 or CO 100	Public Speaking and Group Discussion or Human Communication
DH 240	Dental Hygiene Concepts II
BI 259/260	Vertebrate Anatomy and Physiology I and II with Laboratory
BI 261	Introduction to Biochemistry
BI 301	Microbiology with Laboratory
PA 308	Health Care Delivery Systems
DH 320	Pharmacology and Pain Management
DH 325	General and Oral Pathology
DH 327	Periodontology

DH 330	Dental Hygiene Concepts III
DH 342	Dental Materials
DH 350	Dental Hygiene Concepts IV
DH 360	Local Anesthesia
DH 423	Instructional Planning and Media
DH 438	Dental Hygiene Research
DH 455	Dental Hygiene Public Health
DH 460	Advanced Dental Hygiene Practice
DH 461	Oral Medicine
DH 462	Dental Hygiene Internship
DH 468	Dental Hygiene Senior Project

Plus one Social Interactive and Global Perspective elective, one Aesthetic Response elective (art, music, theatre), and one Analysis and Problem Solving elective.

Plus two electives

Reasoning 3
DHYG 500 Leadership in Dental Hygiene 3
DHYG 502 Evidence Based Research 3
DHYG 507 Dental Health Services Administration 3
DHYG 510 Foundations of Managed Health Care 3
DHYG 512 Grant and Contract Writing 2
DHYG 516 Concentrated Practicum 3
DHYG 520 Master's Thesis 4

Core Requirements = 24 credits

And one of the following Components = 12 credits

Dental Hygiene Education
- DHYG 503 Clinical and Didactic Educational Concepts 3
- DHYG 504 Clinical/Laboratory Teaching 3
- DHYG 505 Didactic Student Teaching 3
- DHYG 508 Curriculum Development and Management 3

OR

Dental Public Health
- DHYG 509 Dental Public Health 3
- DHYG 511 Epidemiology 3
- NUTR 560H Developmental Nutrition 3
- DHYG 513 Seminar in Public Health Issues 3

*Clinical education is completed in two years.

Example of MSDH curriculum in Connecticut. Tuition varies: 37 credits completed for approximately $26,000.

DHYG 400 Statistical

Proposed MSDH curriculum leading to Advanced Dental Hygiene Practioner.

See proposed curriculum – below are the comparison hours given in last years testimony.

The American Dental Association biennially publishes a report devoted to the instruction, laboratory, and patient care activities at all 56 Unites States dental schools. Utilizing data obtained from the most recent 2007 Survey of Dental Education, the following comparisons between dental school and ADHP clock hours is noted.

Average Clock Hours	Dental School	ADHP	Difference from ADHP
Dental Clinical Sciences	3,557	3,237	-320
Community Based Patient Care	132	400	+268
General and Oral Pathology	198	201	+3
Periodontics	301	314	+13
Pharmacology	85	102	+17
Oral Diagnosis and Treatment Planning	202	111	-91
Dental Public Health and Special Needs	121	253	+132
Dental Emergencies	70	62	-8
Anesthesiology/Pain Control	57	54	-3

As can be seen, the difference between the two curricula is minimal based on each professional's scope of practice. The ADHP curriculum fully prepares the practitioner to perform what is required of the position. This comparison of educational clock hours demonstrates that the practitioner is fully educated in didactic, laboratory, and clinical sciences required to achieve the appropriate competency level.

Appendix K

	Advanced Dental Hygiene Practitioner (ADHP)	Alaskan Dental Health Aide Therapist (DHAT)
Developed by	American Dental Hygienists' Association www.adha.org/adhp	Alaska Native Tribal Health Consortium (ANTHC) –Community Health Aide Program www.anthc.org
Stage of Development	ADHP educational competencies were finalized in 2008. The first educational program based on ADHP competencies began in Fall 2009. http://www.dentalboard.state.mn.us/Licensing/ProcessingandApplications/DentalTherapist/tabid/1165/Default.aspx	DHAT practice began in Alaska in 2004. The first graduates from the U.S.-based DENTEX program began practice in 2008. http://depts.washington.edu/dentexak/mission.html
Education/Training	Master's level education at accredited institution; open to individuals currently licensed as dental hygienists who have a Bachelors degree	24 month undergraduate program administered by ANTHC in partnership with the University of Washington DENTEX program http://www.anthc.org/chs/chap/dhs/
Program Enrollment Requirements	Licensed dental hygienist with Bachelor's degree	High school graduate or GED equivalent
Proposed Supervision	Collaborative arrangement envisioned with strong communication and referral networks; presence of a dentist not required; use of teledentistry.	Remote/general supervision of a dentist; presence of a dentist not required; use of teledentistry
Preventive Scope	- Oral health and nutrition education - Full range of dental hygiene preventive services, including complete prophylaxis, sealant placement, fluoride treatments, caries risk assessment, oral cancer screenings - Expose radiographs - Advanced disease prevention and management therapies (e.g. chemotherapeutics)	- Oral health and nutrition education - Sealant placement - Fluoride treatments - Coronal polishing - Prophylaxis - Expose radiographs
Periodontal Scope	-Provide non-surgical periodontal therapy.	-Provide non-surgical periodontal therapy.
Restorative Scope	- Preparation and restoration of primary and permanent teeth -Placement of temporary restorations - Placement of pre-formed crowns -Temporary recementation of restorations -Pulp capping in primary and permanent teeth -Pulpotomies on primary teeth - Uncomplicated extractions of primary and permanent teeth -Place and remove sutures -Provide simple repairs and adjustments on removable prosthetic appliances	- Restorations of primary and permanent teeth - Placement of pre-formed crowns - Pulpotomies - Non-surgical extractions of primary and permanent teeth

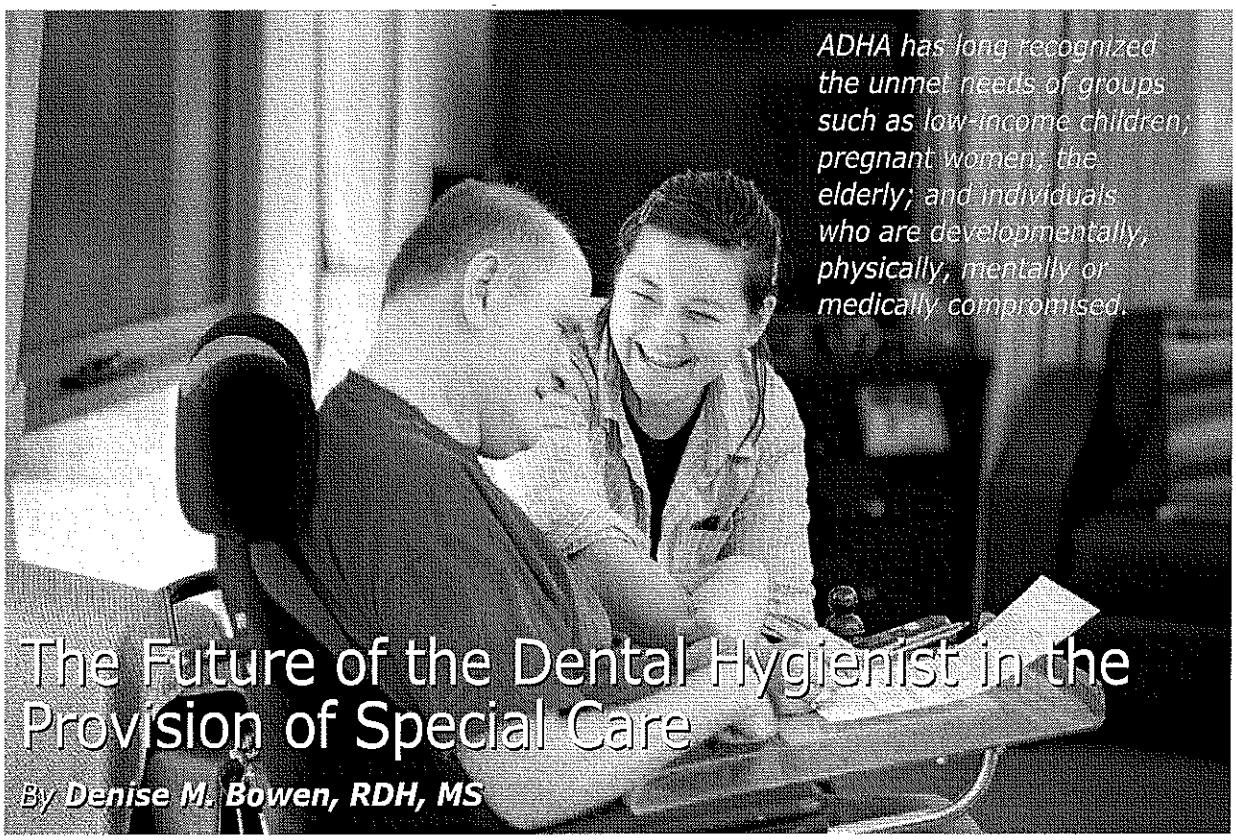
Additional Competencies	- Local anesthesia and nitrous oxide administration - Diagnosis within scope of practice - Limited prescriptive authority (for prevention, infection control and pain management) - Triage - Case management - Healthcare policy and advocacy -Health promotion for individuals, families, communities - Patient referral	- Local anesthesia administration - Patient referral

Chart details: references inserted & http://www.adha.org/downloads/docs/Acc0111Lead.pdf

Midlevel Provider models comparison – a notable difference is the educational level for the providers. The educational level of the proposed Advanced Dental Hygiene Practitioner is at the Master's level, entry restricted to dental hygienists possessing a Bachelor's degree. The Alaskan Dental Health Aide Therapist education is at the undergraduate college level, entry limited to high school graduates or GED.

Marcia H. Lorentzen, RDH, MSEd, Ed.D., 1/7/2012

Appendix L



ADHA has long recognized the unmet needs of groups such as low-income children; pregnant women; the elderly; and individuals who are developmentally, physically, mentally or medically compromised.

The Future of the Dental Hygienist in the Provision of Special Care

By **Denise M. Bowen, RDH, MS**

What does "mid-level provider" mean? The term is often applied to medical care, where a mid-level provider, or a "mid-level," is sometimes characterized as a clinical professional who provides patient care including examination, diagnosis, treatment and follow up under the supervision of a physician. One example is a physician assistant. Nurse practitioners (NP) are also sometimes called mid-levels.[1] Although mid-level is frequently used to describe health care providers "in between" physicians and allied professionals, in fact, no clear definition of the term exists in medicine.

Today, a number of proposals seek to recreate the successes of medical mid-levels in increasing care opportunities within the realm of oral medicine by creating oral health mid-levels. There are examples of practitioners in other countries to draw upon as well. Dental therapists in New Zealand have served children through school-based programs since 1921. Advanced dental care systems in Great Britain, The Netherlands, Australia, New Zealand and, to a degree, in Canada, have recognized these oral health care providers.[2]

A recent study found that nearly 94.6 percent of restorations performed by dental therapists were successful, and patients were satisfied.[3] These findings verified earlier U.S. studies that documented cost-effectiveness, patient acceptance and quality of work by dental therapists or expanded functions dental hygienists.[4,5] In 2007, the National Academy for State Health Policy (NASHP) published a health policy paper, Improving Oral Health Care for Young Children. NASHP asserted that: 1) since access problems are acute, and shortages of dentists are occurring in more regions and states, momentum to develop a new dental mid-level professional has recurred in the U. S., and 2) dental therapists can improve children's oral health, especially in areas without proper dental coverage.[6]

Currently, there are two examples of mid-levels authorized by law. These are the dental health aide therapists (DHATs) who began to serve Native American communities in Alaska in 2006, and the first dental therapist and advanced dental therapist (DT/ADT) practitioners currently completing their education in Minnesota. Proposals on the table include the advanced dental hygiene practitioner (ADHP) proposed by the American Dental Hygienists' Association (ADHA) and the dental therapist as envisioned by the W.K. Kellogg Foundation and the Josiah Macy, Jr. Foundation in partnership with the American Association of Public Health Dentistry (AAPHD). The Kellogg Foundation has partnered with AAPHD to create a two-year postsecondary training and curriculum. The curriculum is expected to be released in spring 2011.

In Alaska, a DHAT's scope of practice is based on demonstrated clinical skills and tribal location needs. Services provided by DHAT's may include radiographs, treatment of caries, nonsurgical primary and permanent tooth extractions, emergency relief of pain and infection, local anesthesia, recognition and referral of conditions needing space maintenance, and community oral health services, as well as preventive services.[7] The preventive services include "oral prophylaxis" consisting of coronal scaling and polishing but not subgingival scaling, pit and fissure sealants, and fluoride application. The DHAT is a dependent practitioner working in a satellite clinic under a type of supervision by a licensed dentist at a distant regional clinic that is called "general" but in fact resembles that of collaborative practice involving a protocol and consultation.

As mid-level oral health care providers in Minnesota, both DTs and ADTs will provide needed restorative services and emergency palliative treatment in addition to limited preventive services that do not include performing examinations, formulating dental hygiene treatment plans, scaling and root planing, or making referrals. The DT will work under the indirect supervision of a dentist, and the ADT will work under general supervision pursuant to a collaborative management agreement with a dentist. In addition to the DT scope, the ADT is permitted to formulate individualized treatment plans

based on the ADT's evaluation and assessment in collaboration with a dentist. The ADT also can provide limited prescriptions and can nonsurgically extract permanent teeth.[8] This ADT parallels the existing NP and is similar to the proposed ADHP model.

The ADHP model is proposed by ADHA as a mid-level oral health care provider that will leverage the existing dental hygiene workforce to have an even greater impact on the delivery of care.[9] The ADHP would be educated at the master's level and practice collaboratively with a dentist. The ADHP scope would include the full dental hygiene scope, plus a restorative scope similar to the Alaska DHAT. It is envisioned that ADHPs will primarily practice in settings designed to meet the needs of the unserved/underserved. See www.adha.org/adhp/index.html for more details.

The American Dental Association (ADA) has proposed the Community Dental Health Coordinator (CDHC) as their approach to increase access to care. The CDHC will provide oral health guidance and specific clinical dental services, such as dental screenings and fluoride treatments, under supervision of a dentist. The ADA does not characterize the CDHC as a mid-level provider.

Using Mid-Levels to Serve Populations with Special Needs

According to the Kellogg Foundation report, "The primary goal of instituting dental therapists and hygienist-therapists in the U.S. is to expand the availability of basic dental services to socially disadvantaged subpopulations that are now inadequately served."[2] ADHA has long recognized the unmet needs of groups such as low-income children; pregnant women; the elderly; and individuals who are developmentally, physically, mentally or medically compromised. ADHA also advocates for the inclusion of oral health content in existing programs to prevent disease, promote health and solve health problems among these populations.[10]

Recognizing the barriers these populations experience in accessing oral health care, 32 states have enacted policy that allows dental hygienists to provide preventive oral health care in settings outside of the traditional private dental office. While the scope of practice and eligibility requirements for "direct access" dental hygienists differ state by state, direct access dental hygienists can provide dental hygiene services without the prior examination or presence of a dentist. Direct access exists in many forms across the country. Dental hygienists in Washington, Colorado, Connecticut and Maine may practice unsupervised in some settings, while in South Carolina, they may practice under a form of direct supervision that does not require a prior examination by a dentist. Some direct access arrangements include collaborative practice, limited-access permit, extended-care permit, registered dental hygienist in alternative practice, and public health supervision. Alternative sites serving patients with special needs include hospitals, residential care homes, nursing and rest homes, home care agency sites, institutions, group homes, and health care facilities for people with disabilities.[11]

Dental hygienists have employed creative and entrepreneurial efforts to meet the needs of the underserved. Clare Van Sant, RDH, BS, owns/operates ResiDental LLC, a unique organization serving the needs of long-term care facilities and geriatric residents of nursing homes in South Carolina. When asked about the benefit of a mid-level provider, such as an ADHP or dental therapist designation, Van Sant responded, "Because I am the only dental hygienist in South Carolina providing these types of services, I wonder if offering mid-level training wouldn't help other hygienists feel more confident about undertaking work like this." She also encouraged other dental hygienists to pursue it and said, "It is the most rewarding work I have ever done, though it is the hardest."

Jacqueline Freudenthal, RDH, MEd, assistant professor and community health coordinator at Idaho State University, verifies the need to provide training for oral health professionals working with patients with special needs. "Studies show that many dental care providers feel inadequately trained to treat patients with developmental and intellectual disabilities," she said. "Conversely, practitioners with education and experience demonstrate increased knowledge, skills and confidence."

Mae Chin, RDH, MEd, clinical associate professor at the University of Washington, works with students and practitioners to meet the oral health needs of patients with developmental disabilities, specifically intellectually challenged people and medically compromised elderly. She provides direct patient care and training programs in the Dental Education in Care of Persons with Disabilities Program (DECOD) clinical facilities as well as to outreach areas with mobile dental equipment. Chin encourages all dental hygiene practitioners to seek additional training to support them in working with developmentally disabled patients. Individuals in group homes and long-term care facilities, those who are homebound, and other people with disabilities frequently have serious dental problems and have difficulty accessing dental services.

Alternative sites serving patients with special needs include hospitals, residential care homes, nursing and rest homes, home care agency sites, institutions, group homes, and health care facilities for people with disabilities.

DECOD is a special program that treats patients with severe disabilities and prepares dental professionals to meet their special oral health needs. "There is a Distance Learning Unit available online with modules and DVDs for people unable to travel to the school," Chin explained. She also recommends participation in organizations like the Special Care in Dentistry Association, an international organization of oral health professionals and other individuals who are dedicated to promoting oral health and well being for people with special needs. "We all need to work together to meet this increasing need," Chin said.

Jennifer Hew, RDH, MSHCM, assistant professor at Louisiana State University, has spent her career working in hospital settings, serving patients with special needs in an HIV clinic, oncology center, and maxillofacial surgery facilities, and with dental residents in various aspects of hospital-based oral health care. Although Louisiana has no special legislation enabling mid-level dental hygiene practice other than general supervision requirements, she suggests focusing training and education in public health and hospital dental hygiene. Hew highly recommends public health/hospital/community dental hygiene work, and said, "Although the salary is not high, it is very self-rewarding to care for an underserved population that truly appreciates dental hygiene services. I wish more people could do so. It is worth trying to make a difference if you can." Hew is a member of Special Care Advocates in Dentistry, formerly Southern Association of Institutional Dentists, an organization of dental professionals serving institutionalized and community-based clients. She encourages any dental hygienist working with individuals with special needs to visit the Web site and access the free online modules. Each module deals with a unique population and provides suggestions for dental hygiene care.

In many states, licensed dental hygienists can work in these settings under general dental supervision to provide care for some of the most medically and intellectually challenged patients. "Because hygienists often are underutilized or have that streak of independence, many have started to be creative and determined ways to provide care to underserved populations," Chin said. When asked what could be changed to enhance the ability to serve the needs of the developmentally disabled, she replied, "It would be nice to have direct access to dental hygiene care, so these people could come and see dental hygienists as needed or desired." Many states allow direct access to dental hygiene care in alternative settings only.

Other concerns for the success of oral health programs geared towards patients with special needs include whether the state will directly reimburse dental hygienists or mid-levels under the Medicaid program, and the availability of Medicaid funds in challenging economic conditions. In many cases, statutory and regulatory

Oral Health Care Workforce – Current and Proposed Providers

	Advanced Dental Hygiene Practitioner (ADHP)	Alaskan Dental Health Aide Therapist (DHAT)
Developed by	American Dental Hygienists' Association www.adha.org/adhp	Alaska Native Tribal Health Consortium (ANTHC) – Community Heal th Aide Program www.anthc.org
Stage of Development	ADHP educational competencies were finalized in 2008. The first educational program based on ADHP competencies began in Fall 2009.	DHAT practice began in Alaska in 2004. The first graduates from the U.S.-based DENTEX program began practice in 2008.
Education/ Training	Master's level education at accredited institution; open to individuals currently licensed as dental hygienists who have a Bachelor's degree	24-month program administered by ANTHC in partnership with the University of Washington DENTEX program
Regulation/ Licensure	Providers are already state licensed dental hygienists. ADHP is envisioned to be state licensed and regulated.	Providers are certified and regulated by Indian Health Service's Community Health Aide Program.
Proposed Settings	Community and public health settings, possibly private practice	Remote Alaskan villages
Proposed Supervision	Collaborative arrangement envisioned with strong communication and referral networks; presence of a dentist not required; use of teledentistry.	Remote/general supervision of a dentist; presence of a dentist not required; use of teledentistry
Other Relevant Information	ADHA convened an ADHP Task Force, an ADHP Advisory Committee, and sought input from approximately 200 stakeholder groups in developing ADHP competencies. Several national stakeholders, including the National Rural Health Association and National Rural Education Association, support the ADHP model. Language in the report accompanying the FY 2006 Labor/HHS Appropriations encourages federal agency support of the ADHP. Metropolitan State University is the first education program to begin guided by ADHP competencies. Eastern Washington University and the University of Bridgeport Fones School of Dental Hygiene have formal commitments to begin ADHP programs.	Formal evaluations of DHAT practice have demonstrated that irreversible dental procedures can be safely and effectively delivered by non-dentists. Dental therapist models are prevalent in more than 50 counties internationally. DHAT providers are often Alaskan Natives who reside or grew up in the remote villages they serve. The Kellogg Foundation began a comprehensive two-year study to evaluate effectiveness in 2008.
Preventive Scope	• Oral health and nutrition education • Full range of dental hygiene preventive services, including complete prophylaxis, sealant placement, fluoride treatments, caries risk assessment, oral cancer screenings • Expose radiographs • Advanced disease prevention and management therapies (e.g. chemotherapeutics)	• Oral health and nutrition education • Sealant placement • Fluoride treatments • Coronal polishing • Prophylaxis • Expose radiographs
Periodontal Scope	Provide nonsurgical periodontal therapy.	Provide nonsurgical periodontal therapy.
Restorative Scope	• Preparation and restoration of primary and permanent teeth • Placement of temporary restorations • Placement of pre-formed crowns • Temporary recementation of restorations • Pulp capping in primary and permanent teeth • Pulpotomies on primary teeth • Uncomplicated extractions of primary and permanent teeth • Place and remove sutures • Provide simple repairs and adjustments on removable prosthetic appliances	• Restorations of primary and permanent teeth • Placement of pre-formed crowns • Pulpotomies • Nonsurgical extractions of primary and permanent teeth
Additional Competencies	• Local anesthesia and nitrous oxide administration • Diagnosis within scope of practice • Limited prescriptive authority (for prevention, infection control and pain management) • Triage • Case management • Health care policy and advocacy • Health promotion for individuals, families, communities • Patient referral	• Local anesthesia administration • Patient referral

Minnesota Dental Therapist /Advanced Dental Therapist (DT/ADT)	Community Dental Health Coordinator (CDHC)
Minnesota State Statute and Rules www.dentalboard.state.mn.us	American Dental Association www.ada.org
Educational programs for the DT (at the University of Minnesota School of Dentistry) and ADT (at Metropolitan State University) began in Fall 2009.	Curriculum complete and initial educational pilot program began in Winter 2009.
Educational programs for the DT (at the University of Minnesota School of Dentistry) and ADT (at Metropolitan State University) began in Fall 2009.	Completion of 18 months of training.
Providers required to hold state license; can be dually licensed as a dental hygienist and administer dental hygiene scope.	Providers envisioned to be certificated; no formal state licensure
Settings that serve low-income and underserved patients, or are located in designated dental health professional shortage areas.	Community and public health settings
DT – General or indirect supervision depending on service ADT – Collaborative management agreement with dentist, presence of a dentist not required for most services	Onsite or general supervision, depending on service
Minnesota is the first state to legislate new, mid-level oral health providers, the DT and ADT. A thirteen-member workgroup, comprised of various stakeholders, made recommendations on scope, supervision and education. The ADT education program at Metropolitan State University is guided by the ADHP competencies, competencies for the New General Dentist, and requires students to be licensed and actively practicing as a dental hygienist. The DT program at the University of Minnesota does not require an oral health-based baccalaureate degree or licensure as a dental hygienist for admission to the program. Initial graduates of DT/ADT programs are anticipated to enter the workforce in mid-2011.	The ADA convened an internal workgroup to develop CDHC curriculum. The ADA and ADA Foundation have committed nearly $7 million to fully fund CDHC pilot programs over five years. The University of Oklahoma, UCLA (in conjunction with Salish Kootenai College in Montana) and Temple University in Philadelphia are CDHC pilot sites. CDHC trainees are recruited from the communities the provider is intended to serve.
• Oral health and nutrition education • Sealant placement • Fluoride varnishes • Coronal polishing • Oral cancer screenings • Caries risk assessment • Expose radiographs	• Oral health and nutrition education • Sealant placement • Fluoride treatments • Coronal polishing • Scaling for Type I Periodontal patients • Collection of diagnostic data
N/A	N/A
• Restorations of primary and permanent teeth • Placement of pre-formed crowns • Placement of temporary crowns • Extractions of primary teeth • Nonsurgical extractions of permanent teeth (ADT only) • Direct /Indirect Pulp Capping • Pulpotomies on primary teeth • Atraumatic restorative therapy	• Palliative temporization (with hand instrumentation only) • Placement of temporary restorations
• Local anesthesia nitrous oxide administration • Dispense analgesics, anti-inflammatories, and antibiotics • Provide, dispense, administer analgesics, anti-inflammatories, and antibiotics (ADT only) • Assessment and treatment planning as authorized by collaborating dentist (ADT only) • Repair of defective prosthetic devices • Placement and removal of space maintainers • Stabilization of reimplanted teeth	• Development and implementation of community-based oral health programs • Case coordination • Administrative/office management procedures • Triage

language needs to be modified to allow this. States that have made some changes to allow Medicaid programs to directly reimburse are Arizona, California, Colorado, Connecticut, Maine, Massachusetts, Minnesota, Missouri, Nebraska, New Mexico, Nevada, Oregon, Washington and Wisconsin.[12]

Why a Mid-Level Oral Health Care Provider for Special Care?

While allowing dental hygienists to provide preventive oral health care directly to the public has helped improve access to care for the underserved, establishing a mid-level oral health care provider who could provide an expanded scope of practice in various practice settings would improve access to care for those with special needs. The Minnesota Dental Therapy (DT) model will provide basic preventive services, limited restorative services, and extractions of primary teeth. Dental therapists will administer a number of preventive services without the dentist on site (i.e., radiog raphs, fluoride, sealants), but all restorative services, extractions and other, more involved services would require the presence of a dentist. The DT must be a graduate of an approved bachelor's program and work under a collaborative management agreement with a dentist. The Advanced Dental Therapist (ADT) requires a master's degree and will be first licensed as a DT and certified as an ADT after 2,000 hours and passing a certification examination to practice as an advanced dental therapist, allowing for a more advanced scope of practice under general supervision and allowing them to see underserved patients in a variety of nontraditional settings. These mid-level providers will practice pursuant to a collaborative management agreement with a dentist, without the requirement for onsite supervision.[8]

Although there is no statutory requirement for dental hygiene education prior to entering a DT or ADT educational program, the Metropolitan State University and Normandale Community College joint program combines DT and ADT requirements, requiring each applicant must be a licensed dental hygienist. The result will be a new practitioner with dual licensure who may provide both dental hygiene and dental therapy scope of practice under general supervision with a collaborating dentist.

While neither the ADT nor the ADHP is currently licensed (currently, no state has established the ADHP provider), the experience and evaluation of the DHAT model strongly suggest that these emerging providers will add new members to the oral health care team and provide an additional point of entry into the oral health care system for those who are underserved by the current system. A survey conducted by the National Association of Community Health Centers found that restorative and preventive services were the top two oral health needs identified by the Federally Qualified Health Centers (FQHCs) surveyed.[13]

Populations with Special Needs and ADT Students

Metropolitan State University and Normandale Community College jointly offer a baccalaureate dental hygiene degree completion program, a post-baccalaureate certificate program and a master's program, with the degrees granted by the university. This type of partnership between institutions is important to the development of future educational programs for mid-level providers in dental hygiene, as most programs are offered at associate degree granting institutions. Other than a master's degree, no specific coursework is required by statute for licensure as an ADT; however, the existing graduate program, a Master of Science Oral Health Care Practitioner, designed to prepare candidates for ADT licensure includes, for example, Epidemiology, Theories and Explorations in Community-Based Intercultural Communication, five courses in Community-Based Primary Oral Health, Management of Dental Emergencies and Urgent Care, and an Advanced Community Specialty Internship.. Students enrolled in joint programs will benefit from their existing licensure as a dental hygienist (a prerequisite for admission); completion of the required coursework for licensure as a DT; and, after graduation and completion of 2,000 hours of work as a DT, eligibility for certification as an ADT. This dual licensure will allow graduates to work in settings with special populations and provide preventive, basic restorative and emergency care to individuals who may not otherwise have access to these much-needed services.

Speaking specifically about the ADT students' clinic experience during the summer of 2010—from mid-July through mid-August, working 2.5 days a week at Normandale's Dental Clinic—Colleen M. Brickle, RDH, RF, EdD, dean of health sciences at Normandale, explained, "They served over 200 patients (and treated over 300 teeth) who were military veterans of the Afghanistan or Iraq war, elderly and pediatric patients, medically compromised patients, displaced workers, and patients from underserved cultures. All patients were without dental insurance and financially impaired. The primary services provided were oral health assessments, individualized therapeutic and preventive patient care plans, preparation and restoration of decayed teeth with direct restorative materials, palliative treatment of dental pain, and referrals for care they are unable to provide under their scope of practice. All care was under supervision of licensed dentists who are Metropolitan State University community faculty."

Currently, the students are rotating through safety net clinics under the supervision of those faculty dentists. One such setting, Apple Tree Dental, is a non-profit organization whose mission is to improve the oral health of people with special dental access needs. Patients include low-income children and families, elderly nursing home residents, people with disabilities, and others who have serious dental needs. Another opportunity to help the underserved is found at Children's Dental Services, an organization dedicated to improving the oral health of children and pregnant women from low-income families by providing treatment and education to a diverse community. At Hennepin County Medical Center, ADT students treated patients with compromising medical, physical, mental and emotional conditions, providing services ranging from preventive to therapeutic, chronic to acute, simple to complex.

The Metropolitan State ADT students' experiences demonstrate that this mid-level oral health care provider will be able to provide care to the underserved—medically compromised, elderly, children, disabled—in a variety of settings. Because the ADT legislation requires practice settings to be at least 50 percent underserved, rural practices are also likely to benefit, as they will be able to accept uninsured patients and offer sliding fees and other accommodations. The ADT provides an avenue to fully utilize the frequently underutilized dental hygienist, especially for those with special needs.

Summary

Solutions to the nation's oral health problems will demand innovation and leadership. Removing barriers and instituting change to expand, and maintain, an adequate oral health workforce is critical, particularly to address the oral health problems of people with special needs.[11] Coalitions can be formed, following Minnesota's example, and opportunities created for mid-level oral health care providers to better serve the needs of the elderly, persons with disabilities, individuals in group homes and long-term care facilities, those who are home-bound, and other people with special needs.

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Denise Bowen, RDH, MS, professor emeritus in dental hygiene at Idaho State University, has served as a consultant to dental industry, as well as government, universities and private organizations. Professor Bowen has presented at meetings of the ADHA, Canadian Dental Hygienists' Association, American Association of Dental Schools, American Public Health Association, North American Conference on Dental Hygiene Research, and International Symposiums on Dental Hygiene in Canada, Russia, China and Costa Rica. She has contributed to several dental hygiene texts and is widely known through her numerous published articles in dental hygiene and her dynamic continuing education programs related to nonsurgical periodontal therapy, preventive oral care, research, and education. ■

Appendix M

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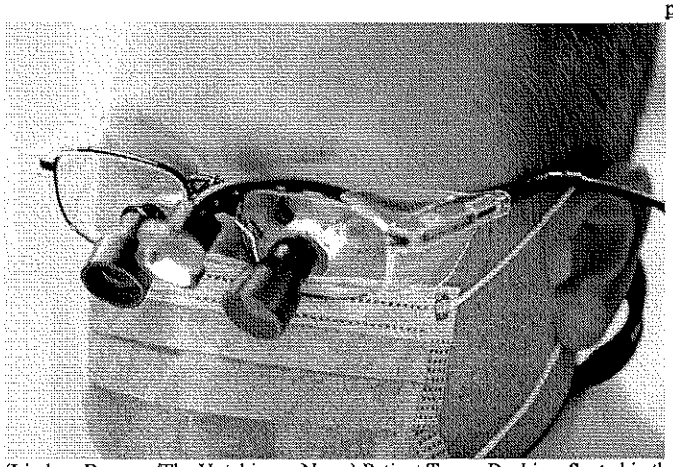
• degrade others on basis of race, gender, class, ethnicity, national origin, religion, sexual orientation, disability or other classification
• are predatory, hateful or intended to attack, intimidate or harass writers or other commenters.
• contain advertising or solicitation
• misrepresent your identity or affiliation
Also:
• Please don't hijack comment threads to controversial topics; keep comments relevant to the topic.
Click here to read the entire policy



(Lindsey Bauman/The Hutchinson News) Patient Teresa Beal is reflected in the glasses of Newton dentist Dr. Brett Roufs during her appointment.

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Minnesota is model for use of dental post

By Edie Ross - The Hutchinson News - eross@hutchnews.com

Much of the proposal for a registered dental practitioner in Kansas is modeled after a similar position in Minnesota that was created in 2009.

Minnesota now recognizes this mid-level position in two designations - a dental therapist and an advanced dental therapist.

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Under the law, dental therapists and advanced dental therapists have the same basic scope of practice, which is very similar to that being proposed in Kansas.

However, in Minnesota, a dental therapist is able to do fewer procedures under the general supervision of an employing dentist than an advanced dental therapist.

For example, the law allows dental therapists to perform cavity preparation and restoration of primary and permanent teeth under "indirect" supervision of a dentist, meaning the dentist is in the same building. An advanced dental therapist, requiring more training and 2,000 hours of practice under direct or indirect supervision, is able to do the same procedure under the general supervision of a dentist, meaning the dentist is not in the same location where the work is being done.

In Minnesota, dental therapist programs are offered at the University of Minnesota's School of Dentistry and at Metropolitan State University.

The seven-semester master's degree program at Metropolitan State University includes the training necessary to pursue the credentialing required to become an advanced dental therapist, prerequisites of which include licensure as a dental therapist and completion of 2,000 hours of practice as a dental therapist, said Christine Milbrath, director of the health science program at Metropolitan State University.

To be eligible for the Metropolitan State program, students must have a bachelor's degree in dental hygiene.

The 28-month program at UMN, which is available in both bachelor's degree and master's degree formats, does not seek to prepare students to pursue that credentialing, said Dr. Karl Self, director of the dental therapy program at UMN's School of Dentistry.

Self explained that UMN does not provide the additional training because it believes that requirements to become an advanced dental therapist should be done sequentially.

"The previous dean of the dental school had a belief that a dental therapist should be out and practicing for a year or two and that we should be able to observe and see how they do and determine at that point what additional education is needed to do these procedures under general supervision," Self said.

While the Minnesota Dental Association raised concerns similar to those raised by the Kansas Dental Association, it supported UMN's dental therapist program, Self said.

Metropolitan State graduated seven students from its Oral Health Care Practitioner program in the summer of 2011 and the University of Minnesota graduated its inaugural class of dental therapy students last month.

The Minnesota state legislature will receive a report from the Minnesota Board of Dentistry in January 2014 regarding the impact of the dental therapist on the delivery of care and access to it.

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Appendix N

Annual EPSDT Participation Report
Form CMS-416
Fiscal Year: 2009
State: Connecticut

Description	Cat	Total	< 1	1-2	3-5	6-9	10-14	15-18	19-20
1. Total Individuals Eligible for EPSDT	CN	299,709	17,961	37,117	48,708	58,683	67,112	52,295	17,833
	MN	1,022	2	2	10	13	18	125	852
	Total	300,731	17,963	37,119	48,718	58,696	67,130	52,420	18,685
2a. State Periodicity Schedule	CN		6	4	3	3	4	4	2
2b. Number of Years in Age Group	MN		1	2	3	4	5	4	2
2c. Annual. State Periodicity Sched.	Total		6.00	2.00	1.00	0.75	0.80	1.00	1.00
3a. Total Months of Eligibility	CN	3,047,148	110,828	388,650	516,376	624,708	715,784	543,416	147,386
	MN	8,506	12	23	100	143	191	1,203	6,834
	Total	3,055,654	110,840	388,673	516,476	624,851	715,975	544,619	154,220
3b. Average Period of Eligibility	CN	0.85	0.51	0.87	0.88	0.89	0.89	0.87	0.69
	MN	0.69	0.50	0.96	0.83	0.92	0.88	0.80	0.67
	Total	0.85	0.51	0.87	0.88	0.89	0.89	0.87	0.69
4. Expected Number of Screenings per Eligible	CN		3.06	1.74	0.88	0.67	0.71	0.87	0.69
	MN		3.00	1.92	0.83	0.69	0.70	0.80	0.67
	Total		3.06	1.74	0.88	0.67	0.71	0.87	0.69
5. Expected Number of Screenings	CN	307,178	54,961	64,584	42,863	39,318	47,650	45,497	12,305
	MN	711	6	4	8	9	13	100	571
	Total	307,889	54,967	64,588	42,871	39,327	47,663	45,597	12,876
6. Total Screens Received	CN	245,769	53,784	73,476	33,853	25,914	32,351	22,343	4,048
	MN	280	6	4	6	6	9	49	200
	Total	246,049	53,790	73,480	33,859	25,920	32,360	22,392	4,248
7. Screening Ratio	CN	0.80	0.98	1.00	0.79	0.66	0.68	0.49	0.33
	MN	0.39	0.98	1.00	0.79	0.66	0.68	0.49	0.35
	Total	0.80	0.98	1.00	0.79	0.66	0.68	0.49	0.33
8. Total Eligibles Who Should Receive at Least One Initial or Periodic Screen	CN	242,711	17,961	37,117	42,863	39,318	47,650	45,497	12,305
	MN	705	2	2	8	9	13	100	571
	Total	243,416	17,963	37,119	42,871	39,327	47,663	45,597	12,876
9. Total Eligibles Receiving at Least One Initial or Periodic Screen	CN	157,595	15,542	30,546	31,232	24,845	31,235	20,594	3,601
	MN	245	2	2	6	6	9	45	177
	Total	157,840	15,544	30,548	31,238	24,851	31,244	20,639	3,778

Annual EPSDT Participation Report
Form CMS-416
Fiscal Year: 2009
State: Connecticut

Description	Cat	Total	< 1	1-2	3-5	6-9	10-14	15-18	19-20
10. Participant Ratio	CN	0.65	0.87	0.82	0.73	0.63	0.66	0.45	0.29
	MN	0.35	0.87	0.82	0.73	0.63	0.66	0.45	0.31
	Total	0.65	0.87	0.82	0.73	0.63	0.66	0.45	0.29
11. Total Eligibles Referred for Corrective Treatment	CN	0	0	0	0	0	0	0	0
	MN	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0
12a. Total Eligibles Receiving Any Dental Services	CN	116,548	230	7,164	21,911	30,506	32,357	20,135	4,245
	MN	233	0	14	44	61	65	40	9
	Total	116,781	230	7,178	21,955	30,567	32,422	20,175	4,254
12b. Total Eligibles Receiving Preventive Dental Services	CN	102,951	80	5,893	20,488	28,611	29,012	16,188	2,679
	MN	205	0	12	41	57	58	32	5
	Total	103,156	80	5,905	20,529	28,668	29,070	16,220	2,684
12c. Total Eligibles Receiving Dental Treatment Services	CN	54,619	6	533	6,837	15,146	16,960	12,339	2,798
	MN	110	0	1	14	30	34	25	6
	Total	54,729	6	534	6,851	15,176	16,994	12,364	2,804
13. Total Eligibles Enrolled in Managed Care	CN	283,421	16,486	35,533	46,571	56,049	63,824	49,373	15,585
	MN	845	2	3	8	12	17	111	692
	Total	284,266	16,488	35,536	46,579	56,061	63,841	49,484	16,277
14. Total Number of Screening Blood Lead Tests	CN	68,263	2,545	41,181	24,537				
	MN	4	0	2	2				
	Total	68,267	2,545	41,183	24,539				