Testimony of Leon A. Assael, DMD Dean, University of Minnesota School of Dentistry

I am writing to express my strong support for the effort of the State of Vermont to enact a state law to improve the oral health of its citizens. I am the Dean of the University of Minnesota School of Dentistry, where we are training Minnesota's dental therapists. We have two programs, one at the University of Minnesota School of Dentistry and one at the Minnesota State Colleges and Universities (MNSCU). Fifty two dental therapy graduates are already in practice providing needed dental care to underserved patients and communities in Minnesota. I am proud of our graduates and am confident that their patients are well-served and receive the highest quality of dental care in a variety of dental practices in our state.

I understand the Vermont law will authorize treatment of patients suffering from dental caries to save teeth subjected to decay by well trained and supervised individuals similar to the dental therapists who have been so successful since their launch in Minnesota six years ago. I understand that your education model will include a means for advanced training in the treatment of tooth decay with the ability to as a part of the dental team perform restorative procedures under the supervision of a dentist.

I know that there are questions about the appropriateness of this program from some in the dental community. Critics question the experimental concept of this program or that the quality services might be inferior. I am writing to assure you that these arguments are not supported by facts, research, or our experiences of Minnesota, Alaska and over 50 countries where mid-level oral health practitioners are practicing today. Our Minnesota dental therapists are well-trained, fully understand the limited but essential scope of services they are authorized to provide, and provide high quality dental services under the supervision of a dentist. Indeed, at the University of Minnesota they are educated in exactly the same courses that educated dentists with regard to these services. They undergo the identical examinations for competency and take the same regional dental board examination for the procedures for which they are licensed. Their devotion to a limited area of practice makes them very effective in that specific area. As pioneers of this field in America, they are particularly devoted to their patients and to the importance of their work.

I firmly believe that before long dental therapists will be well-accepted members of the dental team and will be embraced by dentists, the whole health care team and patients. Our dental health care system must change to address the ravages of untreated disease. Dental caries remains the number one u treated disease in children and destroys an essential organ system, the masticatory system in adults. As in other parts of our health care system, our workforce must continue to evolve to embrace the concept of teams, with each team member working at the level consistent with their education and training. It does not make sense for a dentist, with extensive and expensive training, to perform routine procedures that could be done as well-- and less expensively -- by a mid-level practitioner integrated into the oral health care team. The great success of dental hygiene has proved this for the public and the profession, but that success has been limited to just some of the dental diseases. Your proposal will now address the greatest unmet oral health care need, the treatment of dental caries.

The five year report on dental therapy from the Minnesota department of health indicates that more dental therapists are serving rural and underserved communities by far than new dentists during the same period. The waiting and travel time for patients has been diminished and access to care for working families and those on public assistance has been improved. As a vignette, one of the greatest advocates for dental therapy in 2009 was Children's dental services. Founded a century ago by the

Women's League of Minneapolis, it is devoted to care for urban and rural children in Minnesota for which there is no other access to care. In 2009 with just two dentists, their budget could not accommodate a third dentist at a cost of 200,000 in salary and benefits. Thus very few children could be treated considering the very low family incomes of the communities they serve. Since the law came into effect, they have hired 7 dental therapists. Just as importantly, with so many more children being seen, they now have not just 2, but 4! dentists on their staff. And those four initially reticent dentists have enjoyed the ability to head an oral health care team that makes ever greater progress in the care of their patients. There are now eleven providers where there were just two to care for the essential health care needs of these previously UNSERVED children among the majority of children, 56% who did not see a dentist in 2009.

In this one practice, with eleven oral health professionals to treat their cavities, and prevent the destruction of their mouths by tooth decay, many more Minnesota kids will gain the benefits of good oral health with an ability to be free of pain, disfigurement, and dysfunction. That type of good news is occurring in dozens of settings in Minnesota, public clinics, hospitals, private dental practices, nursing homes, schools, and in physician offices. That is the greatest achievement of the dental therapy law in Minnesota and that is the hope for Vermont that you consider today.

ECONOMICS OF DENTAL THERAPY

The addition of the dental therapist to the oral health care delivery team in the United States, and particularly in Alaska and Minnesota, allows for a greater understanding of the costs for education and care provided by dental therapists as compared to US dentists. As the first state to have dental therapy programs to serve the public, Minnesota has been able to study the costs and economic impact of dental therapists over 7 years.

Those costs can be summarized as the tuition and fees associated with education, the labor costs of dental therapists as compared to dentists once in the workforce, the effectiveness of the oral health care delivery team with the dental therapist, the costs of patients gaining access to dental care, and the unit costs of dental care provided with the dental therapist as part of the team. In Minnesota, legislation passed in 2009 required a five year report of the Minnesota department of health on dental therapy that has helped to inform the discussion about costs in dental therapy.ⁱ In addition the 50 graduated dental therapists in Minnesota are providing constantly updating information on their practice impact.

Regarding the cost of education, the University of Minnesota School of Dentistry dental therapy program is a 7 semester one in Minnesota and it results in a Masters of Dental Therapy. The total tuition and fees for completion of the DT program for Minnesotans are \$76,613 over 3 years. The DDS program is an 11 semester program and the tuition and fees for completion of the DDS program for Minnesotans are \$209,383. Thus the direct costs of educating a dental therapist are about 1/3 the costs of educating a dental.

Regarding the costs of care, from the patient (care recipient perspective) waiting times for urgent appointments have been reduced 30% (from 46% less than a week appointment to 18%) in practices with dental therapists. (1) Travel times to appointments have been reduced for patients on public assistance by 16%.(1) With the direct costs of transportation for patients on public assistance and those with special needs, dental therapists have provided this added advantage. In Alaska, dental therapists are located in villages often nearly isolated for periods in the winter. With telemedicine links, they are able to provide care on site that obviates the need for expensive air evacuation for dental care.

The unit cost of care has been reduced in practices with dental therapists in that more patients on public assistance have been seen. In Minnesota, if a patient on public assistance is added to the practice, the payment for services is 27% of usual and customary rate.ⁱⁱ With such a low payment rate, an oral health care delivery model with the dentist as the sole provider is unable to care for such patients without a loss on every visit. The result has been that for a child in Minnesota with commercial insurance, 2.2 visits to the dentists are obtained on average each year. For the child on public assistance it is .44 visits, just 20% of the visits of the affluent child.(1) This problem is accentuated by the higher disease rates of children in poverty.

Self-employed dentists earn about 100 dollars an hour while employed dentists about \$75. Dental therapists in Minnesota earn between 35-45 dollars an hour.(School of Dentistry) With reduced labor costs, improved access can be obtained for patients. Thus the direct savings to the health care expense side is 73% for each procedure performed in a practice on a public assistance patient by a dental therapist. As dental therapists become more incorporated into dental practices, it afford the opportunity to increase access for self-paying patients as well, as it should provide downward pressure on fees for the 65% of adults who did not see the dentist in the past year.^{III} The most important reason for the decline in demand for dental services is cost. By reducing the cost barrier, more care will be provided at reduced cost.

At the School of Dentistry, dental therapists are educated side by side with dental students and meet exactly the same standards for knowledge and skill within their scope of dental practice as do the dental students for the procedures for which dental therapy is licensed. The sharply reduced cost of education and practice is due to the fact that dental therapists are members of the oral health care team, where diagnosis, treatment planning and more complex clinical procedures and knowledge are applied by the dentist. Dental therapists are able to treat the enormous burden of untreated dental caries, in underserved populations and permit the dentist to be a resource for disease management for this most untreated disease while providing more complex medical and surgical patient care at the top of their license.

CONCLUSION

Change is hard and will be resisted by some, but I urge you to stand for our patients and your constituents. I encourage you to support this effort in your state. Dental therapists will reduce costs of dental care and improve access for underserved communities. Our University of Minnesota and MNSCU dental therapy graduates are living proof of that achievement.

¹ Early Impacts of Dental Therapists in Minnesota, Minnesota Department of Health, Report to the Minnesota Legislature 2014, Health Policy Division, Office of Rural health and Primary Care, St. Paul, MN, February 2014 ⁱⁱ The Oral Health Care System: a state by state analysis, ADA health Policy Institute, the American Dental Association, Chciago, IL, November 2015.

^{III} Vujicic, M., Where have all the dental care visits gone? J Amer Dent Assoc, 146:6, 412-414, 2015