**Dental Therapy Outcomes**

Dental therapists help dentists provide quality oral health care to more patients. They perform the mid-level procedures that are beyond the scope of a dental hygienist (e.g., preparing and filling cavities, performing nonsurgical extractions), which allows dentists to practice at the top of their license. Dental therapists command lower salaries than dentists, so incorporating them into the team can help dentists provide more cost-effective care. Because dental therapists help dentists lower the production costs of providing care, dentists can increase revenue.[[1]](#footnote-1)

Dental therapists work under general supervision so they can be used by private and public practices to extend office hours to evenings and weekends without a dentist required to be on site. They can also work remotely in underserved areas, or in off-site locations such as schools, day care centers, and nursing homes to bring care to those who face challenges travelling to a dental office.

**Dental Therapists are Cost Efficient**

* Main Street Dental Care, a private practice in Minnesota, made an additional $24,000 in profit and served 200 more Medicaid patients in the therapist’s first year (despite Minnesota having the lowest pediatric dental reimbursement rate in the country).[[2]](#footnote-2)
* Similarly, private, for-profit, dental clinics located in designated dental health professional shortage areas in Minnesota significantly increased cost efficiency with the addition of dental therapists.[[3]](#footnote-3) The net benefit for Grand Marais Family Dentistry was 13% of its average monthly revenue, and for Midwest Dental it was 2.4 times the average monthly revenue.[[4]](#footnote-4)
* People’s Center Health Services, a federally qualified health center (FQHC) in Minnesota, found that after the first year (2012) the dental therapist generated more than $30,000 in net revenue. The center hired a second dental therapist in July 2013.[[5]](#footnote-5)
* Apple Tree Dental Clinic, a non-profit organization in Minnesota, sends a dental team, including a dental therapist, to provide on-site care at a nursing home for veterans. The dental therapist provided 8-10 dental visits each day for an average daily production up to $3,122.[[6]](#footnote-6) The average employment costs per day for the dental therapist were $222 less than for a dentist, totaling savings of $52,000/year for Apple Tree.[[7]](#footnote-7)
* A 2012 report in Alaska found that dental therapists produced an estimated $127,000 in net revenue for their dental teams each year when collecting 75 percent of billed services.[[8]](#footnote-8)
* Dental care is not part of Canada’s national health care system. The Government provides coverage to indigenous citizens and some low-income individuals. Battlefords Dental Group, a private practice in North Battleford, Saskatchewan, employed one dental therapist starting in 1980 and hired a second dental therapist in 2009.[[9]](#footnote-9) In 2012, dental therapists accounted for CA$217,000 (approximately US$226,000) in profit after adjusting for commissions and overhead. This includes about 12% of patients receiving Government dental coverage.[[10]](#footnote-10)

**Economic Modeling**

* An analysis using 2014 dental clinic data from the Edward M. Kennedy Community Health Center (EMKCHC) in Massachusetts showed that the dental clinic could bring in an additional $60,000 a year over expenses by hiring a dental therapist.[[11]](#footnote-11)
* A study using 2013 dental data from a private practice in Kansas showed that the practice could bring in an additional $125,000 a year over expenses (including the cost of an additional dental assistant) by hiring a dental therapist, and increase its Medicaid patient population from 3% to 15%. [[12]](#footnote-12)

**Dental Therapists Increase Access**

* Dental therapists have practiced in Alaska since 2004 and have increased access for over 40,000 Native Alaskans living in rural communities.[[13]](#footnote-13)
* An analysis using 2014 dental clinic data from the Edward M. Kennedy Community Health Center in Massachusetts showed that the dental clinic could add an additional 8 appointments/day (1,920/year) with the addition of a dental therapist [[14]](#footnote-14)
* A 2014 report on the early impacts of dental therapy in Minnesota showed that, on average, 84% of new patients seen by the dental therapists were enrolled in public programs.[[15]](#footnote-15) Nearly one-third of patients in practices employing dental therapists experienced reductions in travel and wait times since the start of the dental therapists’ employment, especially in rural areas.[[16]](#footnote-16) The clinics that employed dental therapists reported that hiring dental therapists increased dental team productivity and improved patient satisfaction.[[17]](#footnote-17) Furthermore, the personnel cost savings allowed the clinics to expand capacity and care for more underserved patients.[[18]](#footnote-18)
* In 2017, with 77 dental therapists licensed in Minnesota, dental therapists provided an estimated 107,640 patient visits.[[19]](#footnote-19)

 **Dental Therapists Improve Health and Provide Safe and High Quality Care**

* The Yukon-Kuskokwim Health Corporation (YKHC), a part of the Alaska Tribal Health System, serves 25,000 Alaska Natives representing 58 federally-recognized tribes. A study conducted by the University of Washington (forthcoming in the *Journal of Public health Dentistry*), of patient records from 2006 to 2015 showed that high exposure to dental therapists was associated with reductions in the number of extractions of the front four teeth in children under age 3, increases in preventive care for children under age 18, and fewer extractions and more preventive care in adults.[[20]](#footnote-20)
* According to a 2010 evaluation of Native Alaskan dental therapists conducted by Research Triangle Institute, quality of care provided by the dental therapists was equivalent to that provided by dentists, and patient satisfaction was high.[[21]](#footnote-21) In this evaluation, 125 direct restorations were evaluated; there were 19 deficiencies noted, with the relative proportion of deficient restorations smaller for therapists (12%) than for dentists (22%).[[22]](#footnote-22)
* In 2008, a literature review of 1,100 publications assessed dental therapists’ performance in more than 26 countries.[[23]](#footnote-23) The review concluded that the dental therapists provided various services with safety and quality that were on par with those of dentists.[[24]](#footnote-24)
* A systematic research review was conducted by the American Dental Association Council on Scientific Affairs in 2013, about which J. Timothy Wright stated, *“The results of a variety of studies indicate that appropriately trained midlevel providers are capable of providing high-quality services, including irreversible procedures such as restorative care and dental extractions.”*[[25]](#footnote-25)
* In Saskatchewan, the Saskatchewan Health Dental Plan (SHDP), which trained and employed dental therapists in school-based clinics to provide basic dental care to all children, helped reduce the average number of required fillings by approximately 50% over six years.[[26]](#footnote-26)
1. The Pew Charitable Trusts, “5 Dental Therapy FAQs,” (April 21, 2016), <http://www.pewtrusts.org/en/research-and-analysis/q-and-a/2016/04/5-dental-therapy-faqs>. [↑](#footnote-ref-1)
2. The Pew Charitable Trusts, “Expanding the Dental Team,” (June 2014), <http://www.pewtrusts.org/~/media/assets/2014/06/27/expanding_dental_case_studies_report.pdf>; Kamyar Nasseh, Marko Vujicic, and Cassandra Yarbrough, “A Ten-Year, State-by-State, Analysis of Medicaid Fee-for-Service Reimbursement Rates for Dental Care Services,” The American Dental Association (October 2014), <http://www.ada.org/~/media/ADA/Science%20and%20Research/HPI/Files/HPIBrief_1014_3.ashx>.   [↑](#footnote-ref-2)
3. Wilder Research and Delta Dental of Minnesota, “Grand Marais Family Dentistry: Dental Therapist Case Study,” (May 2017) (<http://www.wilder.org/Wilder-Research/Publications/Studies/Delta%20Dental%20of%20Minnesota/Grand%20Marais%20Family%20Dentistry%20-%20Dental%20Therapist%20Case%20Study.pdf>); Wilder Research and Delta Dental of Minnesota, “Midwest Dental: Dental Therapist Case Study,” (May 2017) (<https://www.wilder.org/Wilder-Research/Publications/Studies/Delta%20Dental%20of%20Minnesota/Midwest%20Dental%20-%20Dental%20Therapist%20Case%20Study.pdf>). [↑](#footnote-ref-3)
4. Ibid. [does ibid cover both cites in note 3?] [↑](#footnote-ref-4)
5. The Pew Charitable Trusts, “Expanding the Dental Team: Increasing Access to Care in Public Settings,” (June 2014), <http://www.pewtrusts.org/~/media/Assets/2014/06/27/Expanding_Dental_Case_Studies_Report.pdf>. [↑](#footnote-ref-5)
6. Apple Tree Dental, “A Dental Therapist in Long-Term Care: A Case Study,” (2017). [↑](#footnote-ref-6)
7. Ibid. [↑](#footnote-ref-7)
8. Mary Kate Scott, “Tribal Health Organization DHAT Survey Results,” (Jan. 11, 2012). This was an analysis commissioned by the Alaska Native Tribal Health Consortium; revenues were based on a 75% collection rate. [↑](#footnote-ref-8)
9. The Pew Charitable Trusts, “Dentists and Dental Therapists in Private Practice: Two case studies” (February 2014) (<http://www.pewtrusts.org/~/media/assets/2014/02/12/dental_therapist_case_studies.pdf>). In 2012, the average exchange rate for converting one Canadian dollar to one U.S. dollar was 1.040 (<https://www.irs.gov/individuals/international-taxpayers/yearly-average-currency-exchange-rates>). [↑](#footnote-ref-9)
10. Ibid. (technically you just need to have the dollar conversion note here, so you could move that down and place it after the “ibid” which would then just go to the Pew report) [↑](#footnote-ref-10)
11. Data obtained via personal email communications and telephone calls with Toni McGuire, President and CEO; Dr. Brian Genna, Vice President of Dental Services, and Paula Green, Vice President of Advancement. The economic model developed and analyzed by The Pew Charitable Trusts included all actual clinic hours, staff and salaries, additional expenses, reimbursement rates, complexity and volume of patient visits, and no-show rates. Dr. Genna indicated that a new operatory would be required, though the cost of this operatory would be accounted for prior to hiring a dental therapist. If the full cost of the operatory were held against the additional cost of hiring a dental therapist in Year One, the net impact would be -$2,280. In Year Two, when the operatory is paid for, the net impact would be +$60,720. [↑](#footnote-ref-11)
12. Americans for Prosperity—Kansas, “The Economic Benefits of Dental Therapists,” (Feb. 13, 2017), <https://v6mx3476r2b25580w4eit4uv-wpengine.netdna-ssl.com/wp-content/uploads/2017/02/DentalTherapist_benefits_AFP_12.23.pdf>; <https://americansforprosperity.org/afp-ks-hiring-dental-therapists-makes-economic-sense-kansas-dentists/>. The economic model included all actual clinic hours, staff and salaries, additional expenses, reimbursement rates, complexity and volume of patient visits, and no-show rates. The model included an additional dental assistant and two new operatories. Costs of new operatories were reflected in the increased rent (price per sq foot), overhead for electricity and other office expenses, and amortized financing over 20 years. (do we need to call out the report was based on Pew analysis?) [↑](#footnote-ref-12)
13. Alaska Native Tribal Consortium, “Alaska Dental Therapy Education Programs,” accessed on Feb. 23, 2017 at https://anthc.org/alaska-dental-therapy-education-programs/ [↑](#footnote-ref-13)
14. Data obtained via personal email communications and telephone calls with Toni McGuire, President and CEO; Dr. Brian Genna, Vice President of Dental Services, and Paula Green, Vice President of Advancement. The economic model developed and analyzed by The Pew Charitable Trusts included all actual clinic hours, staff and salaries, additional expenses, reimbursement rates, complexity and volume of patient visits, and no-show rates. Dr. Genna indicated that a new operatory would be required, though the cost of this operatory would be accounted for prior to hiring a dental therapist. If the full cost of the operatory were held against the additional cost of hiring a dental therapist in Year One, the net impact would be -$2,280. In Year Two, when the operatory is paid for, the net impact would be +$60,720. [↑](#footnote-ref-14)
15. The Minnesota Department of Health and the Minnesota Board of Dentistry, “Early Impacts of Dental Therapists in Minnesota,” (2014), <http://www.health.state.mn.us/divs/orhpc/workforce/dt/dtlegisrpt.pdf>. [↑](#footnote-ref-15)
16. Ibid. [↑](#footnote-ref-16)
17. Ibid. [↑](#footnote-ref-17)
18. Ibid. [↑](#footnote-ref-18)
19. Email communication between Michael Scandrett, President, MS Strategies, Minneapolis, MN and Jane Koppelman, Research Director, Pew Dental Campaign on 12/05/17. [↑](#footnote-ref-19)
20. Donald L. Chi, Dane Lenaker, Lloyd Mancl, Matthew Dunbar, and Michael Babb, “Dental Utilization for Communities Served by Dental Therapists in Alaska’s Yukon Kuskokwim Delta: Findings from an Observational Quantitative Study” (Aug. 11, 2017), <http://faculty.washington.edu/dchi/files/DHATFinalReport.pdf>. [↑](#footnote-ref-20)
21. Scott Wetterhall, James D. Bader, Barri B. Burrus, Jessica Y. Lee, and Daniel A. Shugars, “Evaluation of the dental health aide therapist workforce model in Alaska: final report,” (Research Triangle Park: RTI International, 2010), <http://www.rti.org/sites/default/files/resources/alaskadhatprogramevaluationfinal102510.pdf>. [↑](#footnote-ref-21)
22. Scott Wetterhall, James D. Bader, Barri B. Burrus, Jessica Y. Lee, and Daniel A. Shugars, “Evaluation of the Dental Health Aide Therapist Workforce Model in Alaska,” RTI International (RTI Project Number 0211727.000.001) (October 2010), <http://www.rti.org/sites/default/files/resources/alaskadhatprogramevaluationfinal102510.pdf>. [↑](#footnote-ref-22)
23. David A. Nash et al., “Dental Therapists: A Global Perspective,” International Dental Journal 58 (2008): 61–70. [↑](#footnote-ref-23)
24. Ibid. [↑](#footnote-ref-24)
25. J. Timothy Wright, “Do Midlevel Providers Improve the Population’s Oral Health?” *The Journal of the American Dental Association*  144, no 1 (Jan. 2013), [http://jada.ada.org/article/S0002-8177(14)60574-2/pdf](http://jada.ada.org/article/S0002-8177%2814%2960574-2/pdf). [↑](#footnote-ref-25)
26. Kavita R. Mathu-Muju, Jay W. Friedman, and David A. Nash, “Saskatchewan’s school-based dental program staffed by dental therapists: a retrospective case study,” *Journal of Public Health Dentistry* (2016): 1-8, doi: 10.1111/jphd.12184. [↑](#footnote-ref-26)