



Strengthening the Oral Health System in Rural Minnesota

Findings and recommendations from the Rural Health Advisory Committee
August 2018

The Rural Health Advisory Committee dedicates this report to the memory of Darcy Dungan-Seaver in recognition of her commitment to addressing the health needs of rural Minnesotans and the joy she brought to all of us in our work with her.

December 17, 2018

Ellen De la torre, Chair
Rural Health Advisory Committee
202 Monroe Avenue
North Mankato, MN 56003

Dear Mrs. De la torre,

Thank you for the Rural Health Advisory Committee's report, *Strengthening the Oral Health System in Rural Minnesota*. We commend you, the Rural Oral Health Workgroup and the entire committee for your efforts.

Ensuring that rural Minnesotans have access to oral health care is an important concern. Understanding this issue in rural Minnesota will help identify ways to target resources and support the development of services where they are most needed. The recommendations from this report highlight the need for continued efforts to create sustainable oral health services and the importance of disease prevention for all.

Thank you for the excellent work. The Minnesota Department of Health is committed to finding solutions to ensure that all Minnesotans have access to quality oral health care. This report, with its insightful recommendations, is an important step. We will continue to work with DHS and the legislature to promote a reimbursement system that covers the costs of providing oral health services and encourages providers to accept patients participating in public programs. We will share workforce data with the legislature to encourage programs that succeed in expanding the workforce in rural Minnesota, and we will work with stakeholders and within the provider community to encourage practices that make the best use of oral health teams across the state—to extend the reach of the existing workforce as much as possible as we work to expand it.

I look forward to working together to protect, maintain and improve the health of all Minnesotans.

Sincerely,



Jan Malcolm
Commissioner of Health
PO Box 64975
St. Paul, MN 55154

Rural Health Advisory Committee

November 26, 2018

Jan Malcolm, Commissioner
Minnesota Department of Health
625 North Robert Street
St. Paul, MN 55155

Dear Commissioner Malcolm,

We are pleased to present this report from the Rural Health Advisory Committee:
Strengthening the Oral Health System in Rural Minnesota.

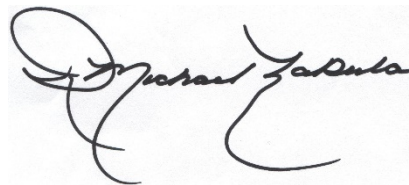
In April 2016, the Rural Health Advisory Committee formed a workgroup to assess oral health outcomes and services in rural Minnesota. Workgroup members included oral health professionals, such as dentists, dental hygienists, and dental therapists, as well as representatives from professional licensing boards and associations, the University of Minnesota School of Dentistry, and rural oral health policy professionals, researchers and stakeholders. The report provides in-depth documentation of the state of oral health in rural Minnesota by describing barriers faced by rural Minnesotans and offering multiple solutions to move toward a sustainable oral health system.

We encourage you to review our findings, continue the effort to call attention to the problem and take action wherever possible to bring about effective solutions that will improve the oral health of rural Minnesotans. Thank you for your support of our work.

Sincerely,



Ellen de la Torre, Chair
Rural Health Advisory Committee



Dr. Michael Zakula, Chair
Rural Oral Health Workgroup

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Executive Summary

Oral health is vital to overall health and wellness for people of all ages, from infancy through older adulthood. New models of providing oral health services, emerging oral health professions and legislative changes that have affected payment rates and the oral health workforce, have improved the oral health landscape in Minnesota. Rural communities have been affected by these changes in positive ways, but persistent gaps and disparities still exist. For example, Minnesota’s oral health outcomes are some of the best in the nation, except in rural communities and for communities of color. Minnesota is also a leader in expanding roles for oral health professionals, but still maintains one of the lowest reimbursement rates in the nation for public insurance. Poor access to oral health services in Minnesota is a silent epidemic in Minnesota’s rural communities.¹

In response to these concerns, the Rural Health Advisory Committee (RHAC) convened a workgroup to assess oral health services in rural Minnesota. Following an in-depth environmental scan, RHAC identified key barriers contributing to disparities that disproportionately affect rural residents, such as access to timely and affordable services, workforce shortages and slow implementation of new practice models in rural areas. In response to their findings, the Rural Health Advisory Committee identified 11 key recommendations in three categories to address barriers prevalent throughout the oral health system in rural Minnesota. Intended for policy makers, state agencies, professional associations and oral health providers, these recommendations propose to:

- **Reform payment to increase access and decrease avoidable costs.** Access to affordable oral health services is a barrier in rural communities. Many private dental practices do not accept patients on public insurance programs, in part because reimbursement rates in Minnesota are lower than most of the nation. As a result, rural residents have difficulty finding oral health services they can afford. RHAC recommends the following changes to improve the underlying financial barriers for rural oral health:
 - Increase public program reimbursement and the number of covered services, while simplifying administrative processes.
 - Position rural oral health providers for participation in alternative payment models that promote better health outcomes rather than number of procedures.
 - Invest in expanded prevention and treatment services for pediatric patients to start them on a path of oral health that will lead to better overall health throughout their lives.
- **Expand and maximize the oral health workforce.** To best leverage the expertise of our oral health professionals, Minnesota must encourage the oral health workforce to practice “at the top of their license.” Carrying out the full array of services they are licensed to provide will help

¹ Teledentistry fights the “silent epidemic” in rural Minnesota November 12, 2014 by [Blandin Foundation](http://blog.blandinfoundation.org/2014/11/teledentistry-fights-the-silent-epidemic-in-rural-minnesota/). Available from: <http://blog.blandinfoundation.org/2014/11/teledentistry-fights-the-silent-epidemic-in-rural-minnesota/>

them bridge the gaps in service availability and workforce expertise that exist in many rural communities. At the same time, Minnesota must identify and spread emerging practices in oral health care to help ensure a full range of services (prevention through treatment) is available in rural communities. RHAC recommends collaborations and innovations that accomplish the following:

- Develop an online service to ‘match’ rural dental practices and professionals.
- Encourage greater use of collaborative agreements between dentists and dental hygienists that allow dental hygienists to practice with more independence and in more community-based locations.
- Expand understanding of how dental therapists can add value to a dental team.
- **Develop new models of rural oral health delivery.** Pilot testing of new models of care delivery will help develop the most efficient and effective ways to provide oral health care in rural areas. New applications and technologies will support existing and incoming providers. RHAC supports actions that:
 - Promote the piloting of hub-and-spoke and/or other multi-site or regional delivery models.
 - Create rural centers for inter-professional training and testing of new models.
 - Expand the use of portable delivery systems and teledentistry.
 - Encourage critical access hospitals to open dental units or collaborate with existing providers.
 - Amend the Rural Health Advisory Committee statute to include a representative from an oral health profession.

Consideration and implementation of these recommendations, more fully described in the following pages, will result in better access, better oral health and better overall health for rural Minnesotans of all ages.

Introduction

The population of rural Minnesota is aging and becoming more diverse, and many questions have arisen over the sustainability and adequacy of the state's oral health delivery system. How will demographic and professional shifts affect oral health care in rural Minnesota? What new practice models or adaptations should rural oral health providers consider to remain viable and accessible, and what corresponding changes will be needed to train, attract and retain an effective oral health workforce for rural communities? What other resources or policy changes will be needed to ensure a strong rural oral health system in the coming years?

The Rural Health Advisory Committee (RHAC), a 15-member committee established in Minnesota Statutes section 144.1481 and appointed by the governor to advise the commissioner of health and other policymakers on rural health issues, convened a workgroup of key stakeholders to explore these increasingly important issues. The workgroup represented a variety of oral health perspectives and roles, including oral health professionals, dental professional associations, oral health educators, safety-net providers, other oral health stakeholders, and RHAC members (Appendix 1 and 2). Dr. Michael Zakula, an RHAC member and retired orthodontist who had a private practice in Hibbing for 34 years, chaired the group with staff support from the Minnesota Department of Health.

The workgroup studied the current landscape of Minnesota's rural oral health system and needs, including:

- Oral health status
- Utilization and access trends
- Oral health workforce
- Practice models
- Emerging professions

The final recommendations reflect the workgroup's consensus on priority issues and promising means to address them, all of which were approved by RHAC as a whole.

Background

Rural Minnesota communities face a variety of challenges in health care access that are even more difficult for oral health care. Most Minnesotans enjoy good oral health, but significant disparities exist, particularly in rural Minnesota. Two populations facing challenges in access to oral health – those with low incomes and those over age 65 – live in higher proportions in rural compared to urban Minnesota.² Moreover, many of these issues will intensify over the next 20 years as the population of older adults grows.

Residents of rural areas generally have lower dental care utilization and worse health outcomes than those in urban areas. They face a variety of barriers to accessing dental care, including geographic isolation, lack of adequate transportation, increased poverty and age, and increased difficulty finding providers willing to treat Medicaid patients.³

To be adequate for a community and an individual, oral health services should be geographically near, affordable, timely and adequately staffed in a way that accommodates all patients. Inadequate access, due to a variety of these factors, contributes to the oral health disparities affecting rural Minnesotans.⁴ Compared to their urban counterparts, rural Minnesotans have lower rates of dental insurance and slightly higher rates of foregone care; isolated rural areas have the worst rates of both.⁵ Workforce trends also indicate concerns for the availability of oral health professionals in rural areas.

As part of its charge to assess the current and future landscape of oral health in rural Minnesota, RHAC identified the following key issues as areas where they could make recommendations that would have the most impact in rural communities:

- Cost of dental services
- Oral health workforce
- Practice models and emerging professions

² Minnesota Demographic Center. “Greater Minnesota Refined and Revisited.” 2017. Available from: <https://mn.gov/admin/demography/reports-resources/greater-mn-refined-and-revisited.jsp>

³ Bayne A, Knutson A, Garg A, Kassahun M. “Promising Practices to Improve Access to Oral Health Care in Rural Communities.” Rural Evaluation Brief, NORC Walsh Center for Rural Health Analysis and the University of Minnesota Rural Health Research Center. February 2013.

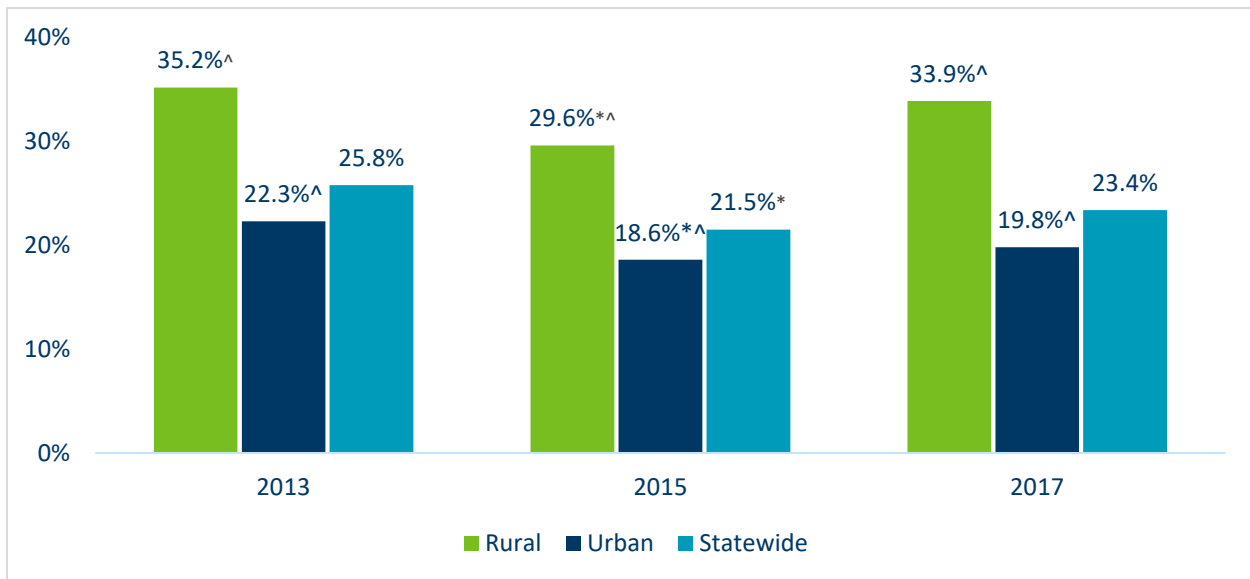
⁴ Minnesota Department of Health (MDH). “The Status of Oral Health in Minnesota.” St. Paul: MDH; September 2013. Available from: <http://www.health.state.mn.us/oralhealth/pdfs/MNOralHealthStatus2013.pdf>

⁵ Minnesota Department of Health (MDH), “Minnesota Health Access Survey Results.” 2013. Available at: <https://pqc.health.state.mn.us/mnha/Welcome.action>

Cost of dental services

Rural residents experience many barriers when accessing affordable oral health services, including lack of adequate dental insurance coverage or reimbursement, low reimbursement from public programs for dental care, a shortage of providers willing to see patients using public insurance programs, and other barriers influenced by geographic isolation.⁶ Low-income, uninsured or underinsured adults face significant barriers to accessing oral health care, and dental uninsurance rates are consistently higher among rural than urban parts of Minnesota.⁷ Those who live in rural communities are less likely than their urban counterparts to seek oral health care because of the cost of services.⁸

Figure 1. Dental uninsurance rates for nonelderly Minnesotans (under age 65), 2013, 2015 & 2017



**Indicates statistically significant difference from previous year shown at the 95% level.*

[^]Indicates statistically significant difference from statewide at the 95% level.

Note: Urban and rural are defined based on Rural Urban Commuting Area (RUCA) zip code approximations. Urban includes primary codes one through three and rural includes primary codes four through ten. Source: Minnesota Health Access Survey, 2013, 2015 and 2017.

⁶ Skillman, S.M., Doescher, M.P., Mouradian, W.E. and Brunson, D.K. (2010) The Challenge to Delivering Oral Health Services in Rural America. *Journal of Public Health Dentistry*, 70, S49-S57 <http://onlinelibrary.wiley.com/doi/10.1111/j.1752-7325.2010.00178.x/full>.

[National Advisory Committee on Rural Health and Human Services](#) (2004).

⁷ Nasseh, Kamyar, "The effect of growing income disparities on U.S. adults' dental care utilization." *Journal of the American Dental Association*, May, 2014: 145 (5). Available from: [http://jada.ada.org/article/S0002-8177\(14\)60036-2/fulltext](http://jada.ada.org/article/S0002-8177(14)60036-2/fulltext)

MDH, Health Economics Program, Minnesota Health Access Survey, 2011-2013; 2013-2015.

⁸ MDH, Health Economics Program, Minnesota Health Access Survey, 2011 to 2013.

Rural Urban Commuting Areas (RUCA) codes define rural and urban. Here rural is a combination of RUCA codes 7-10, that group the isolated rural and small town locations together. Urban areas are equivalent to codes 1-3 and large town 4-6.

More rural residents are enrolled in public insurance programs such as Medical Assistance (MA) or Minnesota Care. In Minnesota, Medical Assistance is one of the programs included in Minnesota Health Care Programs (MHCP).⁹ By early 2016, over one in four rural Minnesotans were enrolled in either Medical Assistance or MinnesotaCare, compared to one in five in urban areas.¹⁰ Minnesota has **some of the lowest Medicaid dental reimbursement rates in the United States**. Low reimbursement rates result in:¹¹

- **Fewer providers accepting patients on public insurance programs;** in 2015, 62 percent of MA enrollees overall reported having been told that a dentist was not taking new MA patients.¹²
- **Fewer patients receiving preventive dental care;** in 2015, only 37 percent of Minnesota children enrolled in MA received any preventive dental care, which is lower than the national rate of 46 percent.

Oral health workforce

As of January 2018, the Minnesota Board of Dentistry licensed 17,281 active dental professionals. The number and type of oral health professionals available in a community affects the type of services available. MDH tracks and identifies trends in the healthcare workforce, including the oral health professions, to help in planning for an adequate workforce that will ensure timely access to services. Current overall workforce trends include an increasing proportion of older professionals, many of whom are planning to retire within five years, and a tighter job market, especially impacting professions on the lower end of the wage scale¹³. Oral health workforce data trends, together with overall workforce trends, indicate concern for rural areas in oral health professional availability.

The oral health workforce includes several professions, which can be deployed in different combinations depending on community need.¹⁴

⁹ The Minnesota Health Care Programs includes Medical Assistance (MA), MinnesotaCare, Minnesota Family Planning Program, Home and community-based waiver programs and Medicare Savings Programs.

¹⁰ Minnesota Department of Health Office of Rural Health and Primary Care. "Public and Individual Insurance in Rural Minnesota, 2010-2016". Available from: <http://www.health.state.mn.us/divs/orhpc/pubs/2017enroll.pdf>

¹¹ Gupta N, Yarbrough C, Vujicic M, Blatz A, Harrison B. "Medicaid fee-for-service reimbursement rates for child and adult dental care services for all states, 2016". American Dental Association Health Policy Institute. Available at: http://www.ada.org/~media/ADA/Science%20and%20Research/HPI/Files/HPIBrief_0417_1.pdf

¹² Department of Health and Human Services Centers for Medicare and Medicaid (CMS), "Letter from CMS Director Anne Marie Costello." CMS, April 26, 2017. Available at: <https://www.mndental.org/files/Letter-from-CMS-Director-Anne-Marie-Costello.pdf>

¹³ Minnesota Employment and Economic Development, Job Vacancy Survey 2017.

¹⁴ Unless otherwise cited, all Oral Health Workforce data is part of the Minnesota Department of Health, Health Workforce Analysis Unit with data from the MDH Health Workforce Survey. Oral health provider data and reports are available at <http://www.health.state.mn.us/divs/orhpc/workforce/index.html>.

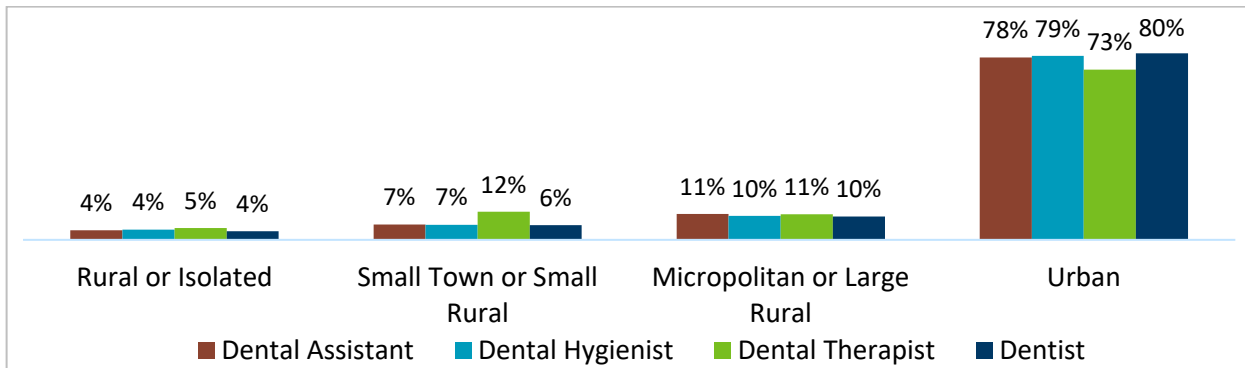
- **Dentists** are oral health doctors charged with preventing, diagnosing and treating oral diseases. They are most often the leaders of oral health teams. In 2018, there were 4,140 licensed dentists in Minnesota (24 percent of the oral health workforce.)
- **Dental therapists** are licensed oral health practitioners that work under the direction of a dentist. They provide evaluative, preventive, restorative and minor surgical dental care within a defined scope of practice. Minnesota statute requires dental therapists to practice in settings that primarily serve low-income, uninsured and underserved patients, or in areas designated as Health Professional Shortage Areas (HPSAs). Dental therapy is considered an emerging profession and is still being integrated into the oral health workforce. In 2018, there were 86 dental therapists licensed to practice in Minnesota (0.5 percent of the oral health workforce.)
- **Dental hygienists** are licensed professionals trained in the prevention and treatment of oral health diseases. Traditionally, dental hygienists worked along with dentists to provide prevention and treatment services in dental practice settings. Additionally, in 2001, Minnesota Statutes, Section 150A.10 authorized dental hygienists to enter into a collaborative agreement with a dentist and to serve patients in community settings, without the presence of or prior examination by a dentist. There were 5,689 dental hygienists (33 percent of the oral health workforce) in Minnesota in 2018.
- **Dental assistants** are licensed professionals that provide a wide range of services to a dental team. They assist with preparing instruments and equipment, treatment and procedures. They also provide patient communication following an oral health visit. As of August 2017, they can also work with a collaborative practice dental hygienist in certain community settings where they are able to place dental sealants, apply fluoride varnish and perform other preventative measures as stated in Minnesota Statutes, Section 150A.10. In 2018, there were 7,366 dental assistants (43 percent of the total dental workforce.)

Minnesota’s oral health professions generally mirror the population density of the state, but with slightly higher concentrations in urban areas than the population in general. **Significantly more providers practice in urban areas than rural, with the exception of dental therapists** (Figure 2). Seventy-eight to 80 percent of dentists, dental hygienists, and dental assistants practice in metropolitan areas compared to 73 percent of Minnesota’s population¹⁵.

The **dental therapy** workforce location is shifting from an urban focus to being located throughout the state. Clinics in the Minneapolis/St. Paul metropolitan area were the early adopters of these new professionals. In 2013, 73 percent of dental therapists worked in the Twin Cities and by 2017, that was reduced to 59 percent, as more rural practices hired licensed dental therapists.

Figure 2. Percentage of oral health professionals practicing by Minnesota region (primary location)

¹⁵ Minnesota State Demographic Center, 2017.

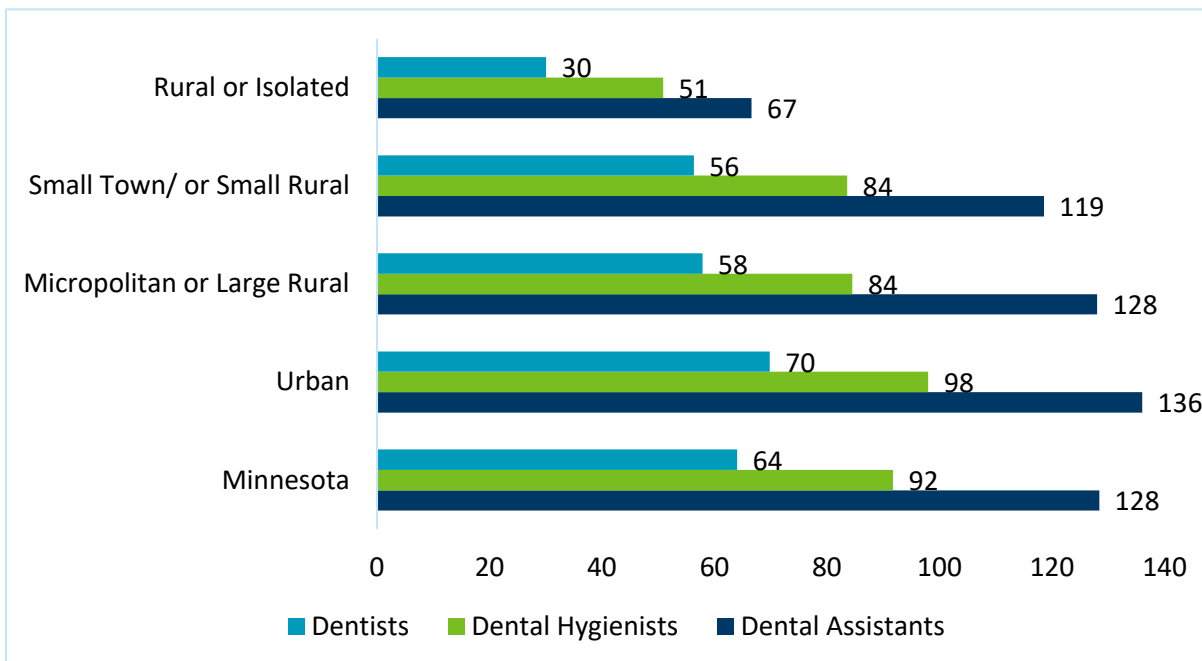


Source: Minnesota Department of Health (MDH) geocoding and analysis of: Dentists, June 2018 Minnesota Board of Dentistry address data. Percentages above are based on 3,508 valid Minnesota addresses; Dental Hygienists, December 2018 Minnesota Board of Dentistry address data. Percentages above are based on 4,999 valid Minnesota addresses; Dental Therapists - MDH Dental Therapist Workforce survey, 2017. Percentages above are based on geocoding of 72 valid Minnesota addresses. Dental Assistants, 2018 Minnesota Board Dentistry address data. Percentages above are based on 6,998 valid Minnesota addresses.

Reviewing the number of oral health professionals by population paints the disparities between rural and urban availability more starkly. Rural and isolated areas have the fewest professionals per 100,000 population of all the oral health professionals. Nationally, there were 61 dentists per 100,000 population in 2017; this ranged from 40 in Alabama to 104 in the District of Columbia.¹⁶

¹⁶ American Dental Association. "Supply of Dentists in the U.S.: 2001-2017" Available from: <https://www.ada.org/en/science-research/health-policy-institute/data-center/supply-and-profile-of-dentists>

Figure 3. Providers by 100,000 population for Dentists, Dental Hygienists and Dental Assistants*



Source: Minnesota Department of Health (MDH) geocoding and analysis of: Dentists, June 2018 Minnesota Board of Dentistry address data. Percentages above are based on 3,508 valid Minnesota addresses; Dental Hygienists, December, 2018 Minnesota Board of Dentistry address data. Percentages above are based on 4,999 valid Minnesota addresses; Dental Assistants, 2018 Minnesota Board Dentistry address data. Percentages above are based on 6,998 valid Minnesota addresses.

Demographics and future plans

Not only is the population of rural Minnesota comparatively older than in the urban areas of the state, the oral health workforce is also older.¹⁷ Age is an important indicator when projecting future job market conditions, especially in rural locations where it is already more difficult to recruit providers. Figure 4 shows the variations in age distribution across the state.

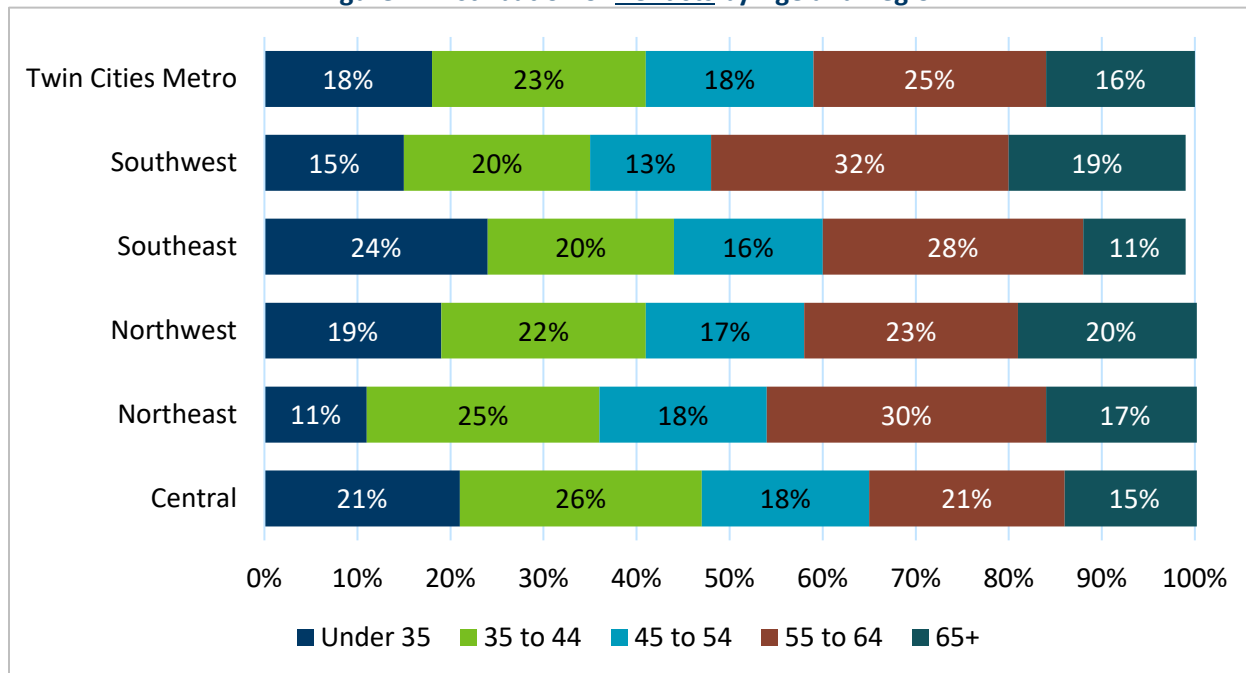
- **Dentists are the oldest group of oral health professionals.** With an average age of 49, nearly half of the dentists practicing in Minnesota (42 percent) are 55 or older, which mirrors national trends.¹⁸
- In some areas of the state, there are likely **not enough younger dentists** to replace dentists after pending retirements.

¹⁷ Minnesota Demographic Center. "Greater Minnesota Refined and Revisited." 2017. Available from: <https://mn.gov/admin/demography/reports-resources/greater-mn-refined-and-revisited.jsp>

¹⁸ American Dental Association, "The Dentist Workforce-Key Facts." Available from: https://www.ada.org/~media/ADA/Science%20and%20Research/HPI/Files/HPIgraphic_0716_1.pdf?la=en

- **Dental hygienists, dental therapists and dental assistants are all significantly younger than dentists.** Dental therapists are the youngest of the four, with two-thirds aged 34 or younger.

Figure 4. Distribution of Dentists by Age and Region



Source: Minnesota Department of Health (MDH) geocoding and analysis of: Dentists, Survey and June 2018 Minnesota Board of Dentistry address data. Percentages above are based on 3,508 valid Minnesota addresses;

Understanding the career and retirement plans of the oral health workforce can help with long-term planning. Within five years: ¹⁹

- Nineteen percent of dentists in Minnesota plan to retire.
- Only five percent of dental therapists plan to leave the field entirely; most indicate they intend to seek additional training.
- Fourteen percent of dental hygienists plan to leave the field, mostly to retire. Rural dental hygienists plan to practice for longer than those in more urban areas, with 72 percent of those in rural and isolated areas planning to work for 10 years or more compared to 64 percent in urban areas.
- Eleven percent of dental assistants plan to leave the field. Of these, 58 percent of them will retire and 25 percent plan to change professions, which points to a potential retention issue to be addressed.

The oral health workforce is predominantly female, and practice location and longevity vary by gender, especially for dentists. The majority of Minnesota’s dentists (65 percent) are male, but an

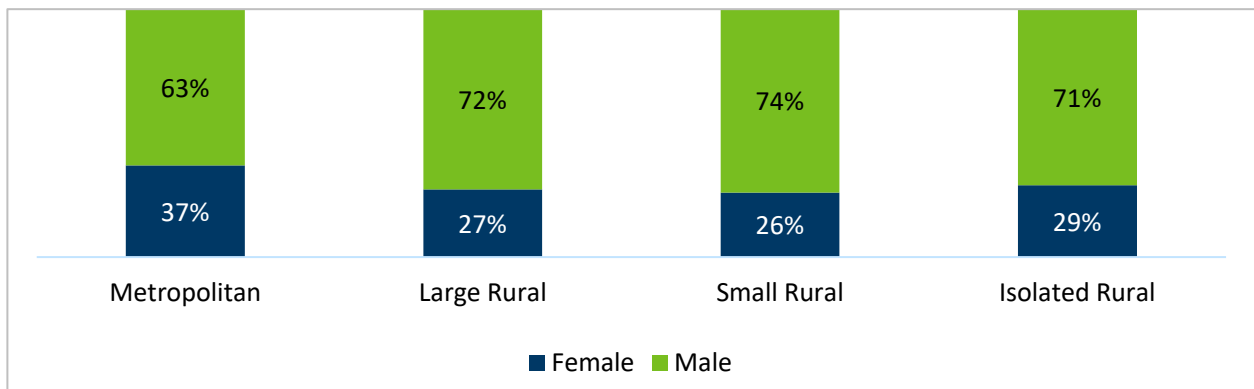
¹⁹ Minnesota Department of Health, Health Workforce Analysis Unit. Health Workforce Analysis Survey 2016-2017.

increasing number of women are entering the profession. **Female dentists indicate they are more likely to continue to practice for more than 10 years**, a reflection of their relative youth. Most notably:

- Roughly half of the state’s dentists under the age of 44 are female.
- Over 95 percent of dental hygienists and dental assistants are female.
- Eighty-seven percent of dental therapists are female.

Female dentists are more likely to practice in urban areas (Figure 5).

Figure 5. Dentists, share of gender by rural-urban location, 2016-2017



Source: Minnesota Department of Health (MDH) geocoding and analysis of: Dentists, Survey and June 2018 Minnesota Board of Dentistry address data. Percentages above are based on 3,508 valid Minnesota addresses.

Race and ethnicity

Rural Minnesota is becoming racially and ethnically more diverse,²⁰ while Minnesota’s dental workforce is predominately white. Black and Hispanic/Latino Minnesotans are especially underrepresented in the dental workforce compared to the state’s population. Dental therapists are the most diverse of the oral health professions in Minnesota, with 12 percent Asian, three percent Hispanic, two percent American Indian, and nine percent of multiple races.²¹

Education

The current dental education-to-workforce pipeline operates primarily as an in-state labor market. Sixty-eight percent of practicing Minnesota dentists earned their dental degree from the University of

²⁰ Minnesota Employment and Economic Development. “Fun with Statistics.” 2018. Available from: <https://mn.gov/deed/newscenter/publications/review/may-2018/fun-with-statistics.jsp>

²¹ Minnesota Department of Health, Health Workforce Analysis. “Early Impacts of Dental Therapists in Minnesota.” 2014.

Minnesota; 100 percent of dental therapists, 85 percent of dental hygienists, and 98 percent of dental assistants were educated in Minnesota.

Despite having a strong pipeline, projections indicate a shortage of over 250 dentists by 2025.^{22,23} Given current trends, it is important to understand how education and demographic characteristics – such as a rural upbringing, influence career and employment choices. Consideration of these factors will help in developing programs and long-term plans that will ensure access to oral health services in rural, underserved communities.²⁴

Practice models and emerging professions

New practice models and emerging professions are influencing the makeup of the oral health workforce and the way that dental practices operate, and having an effect on the need for oral health services in rural communities.

- **Changing practice locations:** Nationally, dental school graduates are three times more likely to seek employment in a large group practice than they were 10 years ago.²⁵
 - Statewide, 64 percent of dentists own or co-own their dental practices; in rural and small town areas of Minnesota, almost 80 percent of dentists own or co-own their own practice.
 - In Minnesota, younger dentists and female dentists are less likely to own or co-own a private practice, indicating potential difficulties in finding dentists to take over rural practices.
- **Dental therapists:** With a mandate to increase oral health access for underserved populations, dental therapists are more likely to work in community-based settings than other oral health professions. Dental therapists also work with mobile programs in underserved areas.
- **Collaborative practice dental hygienists (CPDH):** Dental hygienists with a collaborative agreement with a dentist can provide preventive and therapeutic services more independently and outside a standard dental clinic setting, defined by Minnesota Statutes, Section 150A.10. No additional training or experience is required for a dental hygienist to enter into a collaborative practice dental hygiene setting.

²² U.S. Department of Health and Human Services, Health Resources and Services Administration, National Center for Health Workforce Analysis, “National and State-Level Projections of Dentists and Dental Hygienists in the U.S., 2012-2025.”

²³ The American Dental Association disputes these shortages at the national level.

²⁴ Wanchek, Tanya et al. “Educational debt and intended employment choice among dental school seniors.” *The Journal of the American Dental Association*: 145(5); 428 – 434.

²⁵ American Dental Education Association, “ADEA Deans’ Briefing Book. 2014-2015.” Washington, DC. Available from: <http://www.adea.org>

Dental hygienists with a collaborative agreement frequently work in community settings, providing easier access for people who often have challenges accessing services at a standard dental clinic. While they have the capacity to provide services within their full scope of practice, their collaborative agreement may restrict the services they can provide.²⁶

- While 75 percent of dentists employ dental hygienists, only three percent of them report they have a collaborative agreement with a dental hygienist.
- In rural or isolated areas, however, six percent of dentists have collaborative agreements with dental hygienists.
- While 11 percent of dental hygienists report having a collaborative agreement with a dentist, only six percent report using it frequently or all the time and 72 percent never use it.²⁷
- **Delegation of restorative procedures to a dental hygienist or a dental assistant:** With additional training, dental hygienists and dental assistants can perform restorative procedures such as placing amalgam, glass ionomer, resin-based composite and stainless steel crowns. Training courses must be board approved and a dental therapist or dentist, who are also available in clinic at the time of the procedure, must authorize the procedures.²⁸ However, only four percent of dentists report delegating these duties to dental hygienists, and only eight percent of dental hygienists and 10 percent of dental assistants report they have been delegated by a dentist to do restorative procedures.

²⁶ Minnesota 21st Century Dental Team: Toward Access for All. Normandale Community College.
<http://www.normandale.edu/mndentalteam>

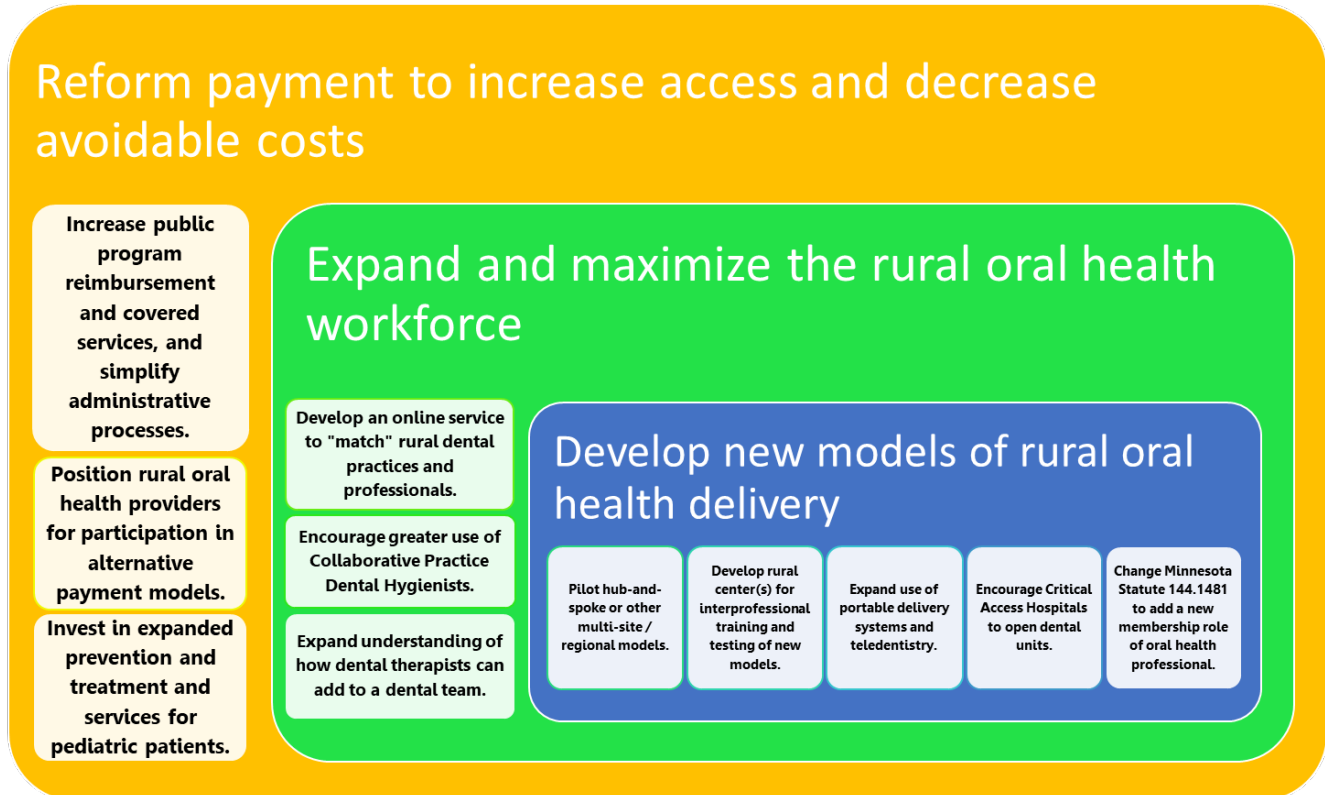
²⁷ Minnesota Department of Health, Health Workforce Analysis Unit. Health Workforce Analysis Survey 2016-2017.

²⁸ Minnesota Statutes 150A.10, subd 4.

Recommendations

RHAC produced 11 recommendations for policymakers and other stakeholders to consider. Figure 6 summarizes these within three overall areas needing attention.

Figure 6. Overview of proposed recommendations



The recommendations are listed here, and more detail on each of these recommendations is included in the following pages. Each recommendation explains the rationale for taking action, as well as the key stakeholders needed to implement each proposal. Wherever possible, the RHAC also included promising practices.

List of Recommendations:

1. [Reform payment to increase access and decrease avoidable costs.](#)
 - 1.1. Increase public program reimbursement and covered services, while simplifying administrative processes.
 - 1.2. Position rural oral health providers for participation in alternative payment models that promote better health outcomes rather than number of procedures.
 - 1.3. Invest in expanded pediatric prevention and treatment to start children on a path of oral health that will lead to better overall health throughout their lives.
2. [Expand and maximize the oral health workforce.](#)
 - 2.1. Develop an online service to 'match' rural dental practices and professionals.

- 2.2. Encourage greater use of collaborative agreements between dentists and dental hygienists that allow dental hygienists to practice with more independence and in more community-based locations.
- 2.3. Expand understanding of how dental therapists can add value to a dental team.
3. Develop new models of rural oral health delivery.
 - 3.1. Promote the piloting of hub-and-spoke and/or other multi-site or regional delivery models.
 - 3.2. Create rural centers for inter-professional training and testing of new models.
 - 3.3. Expand use of portable delivery systems and teledentistry.
 - 3.4. Encourage critical access hospitals to open dental units or collaborate with existing providers.
 - 3.5. Amend the Rural Health Advisory Committee statute to include a representative from an oral health profession.

Implementation of these recommendations, which are more fully described in the following pages, would go a long way toward improving access and ensuring oral health, leading to better overall health for rural Minnesotans of all ages.

Recommendation Set 1

Reform payment to increase access and decrease avoidable costs.

Financial issues underlie many of the state’s rural oral health challenges. RHAC recommends that policymakers prioritize three areas of payment reform that could dramatically improve oral health care access and outcomes in rural Minnesota: (1) payment rates under public insurance programs; (2) children’s oral health services; and (3) alternative payment models. RHAC urges policymakers and other stakeholders to consider the following payment reform measures.

Recommendations	Key stakeholders
<p>1.1 Increase public program reimbursement rates and covered services, and simplify public program processes.</p> <ul style="list-style-type: none"> ● Raise Minnesota Health Care Programs (MHCP) base payment rates. ● Provide timely payment with reduced administrative burden for providers, including rapid credentialing, and improve administrative transparency. ● Educate rural dental providers, especially those in private practice, on how participating in MHCP can be an opportunity to build a client base. ● Use ICD-10 billing codes that allow for more integrated care and reimbursement. ● Work toward adequate dental coverage and reimbursement across the age spectrum, including additions of coverage for dental services under Medicare. 	<ul style="list-style-type: none"> ● Minnesota Legislature ● Minnesota Department of Human Services ● Dental professional associations ● Centers for Medicare and Medicaid Services
<p>1.2 Position rural oral health providers for participation in alternative payment models (<i>developmental recommendation</i>) that promote better health outcomes rather than number of procedures.</p> <ul style="list-style-type: none"> ● Develop new financial models of rural oral health care based on purchasing value and increasing access; include risk adjustments for rural patient-population characteristics. ● Add dental to the Total Cost of Care formulations used in the state’s Integrated Health Partnerships demonstration. 	<ul style="list-style-type: none"> ● Minnesota Legislature ● Department of Human Services ● Centers for Medicare and Medicaid
<p>1.3 Invest in expanded pediatric oral disease prevention and treatment to start children on a path of oral health that will lead to better overall health through their lives.</p> <ul style="list-style-type: none"> ● Support “Healthy Teeth. Healthy Baby” (Minnesota Early Dental Disease Prevention Initiative). ● Implement prevention programs that use all members of the dental team, including connectors/navigators who can help with communication and education of parents, referral, and follow-up. ● Require early childhood oral screening prior to school enrollment. 	<ul style="list-style-type: none"> ● Minnesota Legislature ● Philanthropy ● Dental educators

Recommendations	Key stakeholders
<ul style="list-style-type: none"> ● Engage dental hygienists in conducting oral health screenings based on the Caries Risk Assessment and Management (CAMBRA) model and the Basic Screening Survey (BSS) criteria developed by the Association of State & Territorial Dental Directors (ASTDD). ● Increase support for oral health education in rural schools and other community settings that parents and children frequent. 	

1.1 Increase public program reimbursement rates and covered services, and simplify public program processes.

History

Oral health providers have long sought public program rate increases, with safety-net providers and advocates increasingly joining those calls for legislative action. Even for established nonprofit providers, insufficient reimbursement from the state is causing mounting financial strain that, in some cases, threaten the overall viability of their organizations. Recent studies by the Minnesota Office of the Legislative Auditor, the Minnesota Department of Human Services, and the 2015 Health Care Financing Task Force have all echoed the need for oral health payment reform and proposed specific policy changes, including rate increases and state payment program changes designed to incent dentists to see more public programs patients; and a simplified administrative structure.^{29,30,31}

Payment rates to dental providers serving Minnesotans enrolled in public insurance programs (collectively known as Minnesota Health Care Programs, or MHCP) are among the lowest in the United States, and cover only a fraction of a provider’s usual and customary charges for the services needed. In addition, the types of services covered by MHCP are limited, especially for adults. For example, treatment of periodontal disease is not covered for adults, and adults are not covered for a periodic exam more than once per year.³² In addition, the administrative burden can be significant; according to one workgroup member who’s nonprofit sees many MHCP patients, “a dentist interested in working at a community access site, even just periodically, must fill out large amounts of

²⁹ Minnesota Department of Human Services. “Recommendations for Improving Oral Health Services Delivery System.” February, 2014.

³⁰ Minnesota Department of Human Services. “Delivery System for Oral Health.” February, 2015.

³¹ Minnesota Office of the Legislative Auditor, “Medical Assistance Payment Rates for Dental Services.” March, 2013 Available from: <http://www.auditor.leg.state.mn.us/ped/2013/madentalratessum.htm>

³² Minnesota Department of Human Services. “Provider Manual, Dental Services, Non-Pregnant Adults, Covered Services.” Revised May 26, 2017. Available from: http://www.dhs.state.mn.us/main/idcplg?IdcService=GET_DYNAMIC_CONVERSION&RevisionSelectionMethod=LatestReleased&dDocName=dhs16_148070#cs

paperwork with multiple signature pages. There can be a long wait for approval from the different payers that is also required before he/she can see patients.”

In addition to the Minnesota Health Care Programs, Medicare benefits for oral health are insufficient to ensure oral health for its recipients. Traditional Medicare plans do not cover oral health services. Adults who would like coverage for oral health services must purchase supplemental insurance plans such as Medicare Advantage or individual dental plans.³³ Oral health benefits have long been excluded from Medicare due to rules written into the Social Security Act (Section 1862(a)(12)) that limit both traditional Medicare and supplemental plans from adding oral health benefits for their enrollees.³⁴

Recommendations

Recommendation 1.1 details	Key stakeholders
<ul style="list-style-type: none"> ● Raise Minnesota Health Care Programs (MHCP) base payment rates significantly, and in a way that increases the state’s <i>overall investment</i> in oral health to reflect actual costs, incentivizes private dentists and sustains the dental safety net. ● Improve administrative transparency and provide timely payment with reduced administrative burden for providers, including rapid credentialing. ● Educate rural dental providers, especially those in private practice, on how participating in MHCP can be an opportunity to build a client base. Educate providers on how to maximize MHCP reimbursement management, perhaps through a Rural Practice Toolkit that builds on the recommendations below relating to dental therapists and collaborative practice dental hygienists. ● Allow the use of ICD10 billing codes to allow for more integrated care and reimbursement (e.g., for dental professionals providing medical care such as screening, diagnosing and helping manage disease, or providing preventive health services, and vice versa). ● Work toward ensuring adequate dental coverage and reimbursement across the age spectrum, for the child and adult population enrolled in Minnesota Health Care Programs, as well as the older adult population served by Medicare. 	<ul style="list-style-type: none"> ● Minnesota Legislature ● Minnesota Department of Human Services ● Minnesota and national dental associations ● Centers for Medicare and Medicaid Services

³³ Families USA, “An oral health benefit in Medicare Part B: It’s time to include oral health in health care.” 2018. Available from: https://familiesusa.org/sites/default/files/product_documents/Medicare_Dental_White_Paper.pdf

³⁴ Families USA, “An oral health benefit in Medicare Part B: It’s time to include oral health in health care.” 2018. Available from: https://familiesusa.org/sites/default/files/product_documents/Medicare_Dental_White_Paper.pdf

Rationale

Many dentists and the Minnesota Dental Association believe this history explains why so few rural providers serve significant numbers of MHCP enrollees; they say it is simply financially prohibitive. In this view, low reimbursement and low access are inextricably linked, and **insufficient reimbursement rates are the single most important reason for the state’s rural dental access problem**. The Minnesota Legislature has enacted several increases to rates, with slightly higher rates for “critical access,” nonprofit and rural providers.³⁵ Most recently, the 2017 legislature increased rates for children’s dental services by 23.8 percent under Medical Assistance and 54 percent under MinnesotaCare.³⁶ RHAC concluded that **reimbursement rates remain insufficient**, however, as these payments continue to cover only part of a provider’s costs for those services and are unlikely to increase access substantially. To address the issue, RHAC recommends:

- **Raise Minnesota Health Care Programs (MHCP) base payment rates significantly.**

Raising payment rates in a way that increases the state’s *overall investment* in oral health to reflect actual costs will incentivize private dentists to participate in public programs and sustain the dental safety net.

In addition, the administrative work required to participate in the programs can be complicated and time-consuming, particularly for the smaller private dental operations common to rural Minnesota. Multiple recent studies have concluded the current system puts too great an administrative burden on dental providers.^{37,38} In a survey of Minnesota dentists conducted by the Office of the Legislative Auditor, nearly a quarter of respondents cited the administrative work required to serve Medical Assistance (MA) patients as a reason they do not treat such patients.³⁹

RHAC also concluded that **payment reform should be combined with program innovation strategies**. Evidence from other states has demonstrated that dental rate increases have the most impact – on

³⁵ Reimbursement rates for the critical access dental providers [increased by 37.5 percent](#) above the MHCP rate for Medical Assistance in 2016 and [increased by 20 percent](#) above the MHCP rate for Minnesota care in 2017. FQHC, RHC and Indian Health Services also receive critical access payments for [MinnesotaCare dental services not otherwise covered](#).

³⁶ Minnesota Department of Human Services. “Overview of changes affecting human services. Fast Facts: 2017 Legislative Session.” Available from: <https://edocs.dhs.state.mn.us/lfserver/Public/DHS-7430-ENG>.

³⁷ Minnesota Department of Human Services, Health Care Administration. “Legislative Report: Delivery System for Oral Health.” February 2015. Available at: <https://www.leg.state.mn.us/docs/2015/mandated/150418.pdf>.

Minnesota Department of Human Services, “Health Care Administration Recommendations for Improving Oral Health Services Delivery System.” February, 2014. Available at: <https://www.leg.state.mn.us/docs/2014/mandated/140261.pdf>.

³⁸ Minnesota Department of Human Services, “Health Care Administration Recommendations for Improving Oral Health Services Delivery System.” February, 2014. Available at: <https://www.leg.state.mn.us/docs/2014/mandated/140261.pdf>.

³⁹ Minnesota Office of the Legislative Auditor, “Medical Assistance Payment Rates for Dental Services.” March, 2013 Available from: <http://www.auditor.leg.state.mn.us/ped/2013/madentalratessum.htm>.

both provider participation and patient access, particularly for publicly insured children – when done in concert with program innovations that improve “enabling conditions,” such as:^{40,41}

- **Streamlined administration**, such as easier credentialing.
- **Expanded incentives** in underserved areas, such as loan forgiveness programs and enhanced rates for clinics serving those communities.
- **Outreach and education for oral health providers and practice managers.** As one workgroup member put it, “We need to shift the mentality of MHCPs as a consistent revenue-losing proposition to viewing them as guaranteed payment: Even though reimbursements are low, they are at least predictable and assured.” In her experience, traditional practice managers may initially be overwhelmed with MHCP administrative requirements, including the pre-authorization and appeal process, she found that, generally, once they learned the processes, their practice’s scheduling and claims administration improved.
- **Assistance with patient communication, education and support** via patient navigators, community health workers, case coordinators or case managers who can assist those who experience limited oral health literacy and other barriers, such as cultural and language differences, transportation and child care needs. At this time, the contribution of Community Health Workers may be limited because only prescribed and approved oral health education services are reimbursed by Minnesota Health Care Programs. However, as one workgroup member observed, “Transportation assistance, treatment coordination, help with organizing appointments and addressing other barriers would be tremendously helpful in rural patient navigation,” And Community Health Workers could assist with those services.
- **Ensuring coverage for oral health services at all ages**, addressing reimbursement rates for Minnesota’s public insurance programs (MHCP) and pressing for inclusion of coverage for oral health services for the Medicare eligible population.

⁴⁰ Nasseh K, Vujicic M, and Yarbrough C. “A ten-year, state-by-state, analysis of Medicaid fee-for-service reimbursement rates for dental care services.” Health Policy Institute Research Brief. American Dental Association. October, 2014. Available from: http://www.ada.org/~media/ADA/Science%20and%20Research/HPI/Files/HPIBrief_1014_3.ashx.

⁴¹ Borchgrevink A, Snyder A, Gheshan S. “The effects of Medicaid reimbursement rates on access to dental care.” National Academy for State Health Policy. March 2008.

1.2 Position rural oral health providers for participation in alternative payment models that promote better health outcomes rather than number of procedures. (*Developmental recommendation*).

History

Recent health reform has touched nearly every aspect of medical care in the United States. Insurance coverage has received the most attention, but equally significant, have been changes to how providers are paid, specifically, a major shift to new approaches based on health outcomes and cost savings. In these new approaches, payment is based not on how many procedures are done but on the health of a particular patient population. Because many factors affect the ability to be healthy – including mental health, access to healthy food, transportation and more – these value-based models typically involve a partnership among different types of providers, called “Accountable Care Organizations” (ACOs).

ACOs take different forms but generally share a common foundation: The ACO and its providers agree to a set payment to serve their group (or population) of patients – regardless of how much treatment is provided - and must show they are improving that population’s health according to certain measures. ACO’s have an incentive to:

- Serve patients more comprehensively (because they are responsible for all costs, not just a procedure or single episode);
- Focus more on prevention (to avoid the higher costs of treatment once a health problem has set in);
- Coordinate patients’ care among their other providers; and
- Offer other services that help patients maintain or improve health outcomes, reducing the total cost of care and thereby increasing the ACO’s savings.

Because oral health and physical health are interconnected, oral disease at any age can have direct impacts on a person’s overall health – including on the measures for which many ACOs are accountable, such as diabetes

Hennepin Health

In Minnesota, most ACO arrangements are still hospital- and physician-focused, though increasingly include long-term care, behavioral health, non-clinical and community-based service providers located outside the hospital. A notable exception is Hennepin Health, a county-based ACO/IHP that combines four organizations – a safety-net hospital and clinics, a county-operated insurer, and the county’s human services and public health departments – serving more than 10,500 low-income adults. Hennepin Health has made dental services a primary part of its care model, after identifying oral health issues as a major reason for avoidable costs in its emergency room. It is important to note, however, that it is both urban and large, able to tap numerous dentists employed by its Federally Qualified Health Center (FQHC) and a clinic located in its hospital. Still, it shows the impact oral health services can have for an ACO – the partnership saw a nine percent decrease in ED visits in one early year. Furthermore, certain features of the model, such as the use of an affiliated network of dentists in addition to those in the hospital and clinic, could potentially be applied in ACOs serving rural areas.

control and cardiovascular health.⁴² Oral health problems can greatly increase total medical costs, and lead to costly emergency room visits and hospitalizations that could be avoided with good dental care and prevention. Nationally, dental-related emergency room (ER) visits are estimated to account for an average of \$1 billion annually, and an average of \$33.5 million annually in Minnesota.⁴³ Such costs are likely higher in rural areas, where the level of dental access is comparatively lower and the use of emergency rooms is higher.⁴⁴

When oral and physical health care are coordinated or integrated, health spending can be reduced. One major health insurance company saw annual health costs among its diabetic patients reduced by nearly 30 percent when those individuals received consistent periodontal treatment. Other studies have shown similar savings for patients with chronic conditions.⁴⁵

Minnesota has been a leader in developing, testing and refining alternative payment models. By late 2015, half of the hospitals, clinics and physicians in Minnesota and 40 percent of the commercially insured population were associated with an ACO. Minnesota also has a growing number of Integrated Health Partnerships (IHPs), which are ACOs serving the Medicaid population and providing more intensive and integrated primary care services. Minnesota’s IHPs have demonstrated major savings in their comprehensive approach and as of 2017, the 21 partnerships collectively have saved nearly \$213 million in public dollars.⁴⁶

Recommendations

Recommendation 1.2 details	Key stakeholders
<ul style="list-style-type: none"> Develop new financial models of rural oral health care based on purchasing value (vs. paying for volume) and increasing access, and include risk adjustment for rural patient-population characteristics that may independently affect results of a given measure and are not equally distributed across all providers. Building blocks could include: 	<ul style="list-style-type: none"> Minnesota Legislature Minnesota Department of Human Services

⁴² Mayberry M. “Accountable Care Organizations and Oral Health Accountability.” American Journal of Public Health 2017; 107(S1):S61-S64. Available from: <http://ajph.aphapublications.org/doi/10.2105/AJPH.2017.303833>.

⁴³ Calculated by the Minnesota Hospital Association, 2018. Three-year average for hospital-based outpatient emergency department charges for 2015-2017. Values for 2017 are an estimate of cost-based on charges for the first half of the year times two.

⁴⁴ Allareddy V, Rampa S, Lee MK, Allareddy V, Nalliah RP. “Hospital-based emergency department visits involving dental conditions: profile and predictors of poor outcomes and resource utilization.” J Am Dent Assoc. 2014; 145(4):331–337.

⁴⁵ Mayberry M. “Accountable Care Organizations and Oral Health Accountability.” American Journal of Public Health 107, no. S1: pp. S61-S64. June 1, 2017. Available from: <http://ajph.aphapublications.org/doi/10.2105/AJPH.2017.303833>.

⁴⁶ Rural Health Value Project. “State Innovation Model Testing Awards from the Center for Medicare & Medicaid Innovation: Highlighting Rural Focus.” July 2017. Available from: <https://cph.uiowa.edu/ruralhealthvalue/files/RHV-SIM-Profiles.pdf>. Minnesota Department of Human Services. “State official commends Wilderness Health for enhancing care, saving money.” August 10, 2017. Available from: <https://mn.gov/dhs/media/news/?id=1053-307649>.

Recommendation 1.2 details	Key stakeholders
<ul style="list-style-type: none"> ▪ Prevention and disease management as main focus (vs restorative or acute care as primary focus) ▪ Risk-adjusted quality goals and metrics ▪ Team-based care ▪ Population health management ▪ Whole-person, continuous care through coordination or even integration with health and other services (vs episodic, fragmented care) <p>Add dental to the Total Cost of Care formulations used in the state’s Integrated Health Partnerships demonstration.</p>	<ul style="list-style-type: none"> • Centers for Medicare and Medicaid Services

Rationale

With the exception of Hennepin Health, oral health has been largely missing from ACOs.⁴⁷ RHAC concluded that **incorporating oral health into Minnesota’s ACOs would have wide-ranging benefits**, not only to these organizations and their patients in rural areas, but toward the broader need for better integration of the state’s overall physical and oral health care systems. It also recognized, however, that oral health providers will need to develop key capabilities for this to happen, including a more pronounced emphasis on quality measurement and improvement (comparable to medicine’s approach), and more involvement in patient outcomes, follow-up and care coordination. They will also need to develop greater familiarity with, and the ability to participate in payment arrangements that are different from the fee-for-service model commonly found in dentistry.

This is a developmental recommendation, a first step in positioning dental providers to participate in alternative payment models and incorporate oral health into ACO networks. The medical and dental

⁴⁷ A recent study found 29-36 percent of ACOs included dental services, depending on the type of ACO. Colla CH, Stachowski C, Kundu S, Harris B, Kennedy G, Vujicic M. “Dental care within accountable care organizations: challenges and opportunities. Health Policy Institute Research Brief.” American Dental Association in partnership with The Dartmouth Institute for Health Policy & Clinical Practice. March 2016. Available from:

http://www.ada.org/~media/ADA/Science%20and%20Research/HPI/Files/HPIBrief_0316_2.pdf.

Minnesota Department of Human Services and Department of Health, SIM Minnesota. “Factsheet: ACO Baseline Assessment.” August 2015.

http://www.dhs.state.mn.us/main/idcplg?IdcService=GET_FILE&RevisionSelectionMethod=LatestReleased&Rendition=Primary&allowInterrupt=1&noSaveAs=1&dDocName=dhs16_197637.

Leavitt Partners, Health Policy Institute, American Dental Association, Pediatric Oral Health Research & Policy Center, and the American Academy of Pediatric Dentistry. “Dental Care in Accountable Care Organizations: Insights from 5 Case Studies.” June 9, 2015. Available at:

http://www.ada.org/~media/ADA/Science%20and%20Research/HPI/Files/HPIBrief_0615_1.ashx.

systems have long been disconnected, and many of the building blocks of ACOs - such as risk-adjusted quality goals and metrics, team-based care, population health management and care coordination – will be new to many dental practices. Dental and medical providers also use different health information (HIT) systems, a major barrier to ACO participation, and the most common reason cited by existing ACOs for not including dental care, since the ability to track, share and coordinate information on the same patient, across provider types, is key to effective ACO operation and coordination. Other barriers cited by ACOs include difficulty in recruiting dental providers and the lack of dental insurance among patients.⁴⁸

RHAC also concluded that **a powerful way to accelerate dental care into ACOs would be to include the service in the Total Cost of Care formulation used in the state’s Integrated Health Partnerships**, the Medicaid ACO demonstration described above. Beginning in 2018, the IHP initiative has included the importance of “non-medical health factors” as a core principle of its model, and noted the need to provide incentives for partnerships between medical and non-medical providers.⁴⁹

Work is still needed to determine the best way to incorporate oral health services and avoid unintended consequences that create a disincentive to provide dental care. Options to consider include a carve-out or other adjustments to account for a short-term increase in costs that would likely come as attributed patients begin using oral health services, some, perhaps, for the first time. The financial benefits to the IHP – from avoided visits to the ER, or better chronic disease outcomes – while eventually substantial, likely will not emerge immediately. Lessons from Oregon and other states participating in Medicaid demonstrations could inform this work.⁵⁰

⁴⁸ Colla CH. “How Are Accountable Care Organizations Approaching Dental Care Services?” Webinar hosted by the Health Policy Institute, American Dental Association. March 2016. Available from: <http://www.ada.org/en/science-research/health-policy-institute/publications/webinars/how-are-accountable-care-organizations-acos-approaching-dental-care-services>.

⁴⁹ Minnesota Department of Human Services. “Integrated Health Partnerships: 2017 Request for Proposal Overview.” June 29, 2017. Available from: https://mn.gov/dhs/assets/2017-ihp-rfp-presentation_tcm1053-302586.pdf.

⁵⁰ Center for Health Law and Policy Innovation, Harvard Law School. “Innovations and Insights in Medicaid Managed Care.” March 2016. Available from: <http://www.chlpi.org/wp-content/uploads/2014/01/PATHS-Innovations-and-Insights-in-Medicaid-Managed-Care-3.21.16.pdf>.

1.3 Invest in expanded pediatric oral disease prevention and treatment.

History

Oral health disparities among children are one of the largest causes of unmet health needs in the United States, and rural children fare worse than urban children for prevention and oral health outcomes.⁵¹ In Minnesota, third graders in rural public schools are 1.3 times more likely to experience dental caries than third graders in urban schools.⁵² In addition to rural-urban disparities, there are also significant disparities by socioeconomic status and race/ethnicity.⁵³ Many of the most successful efforts to improve oral health access and positive outcomes focus on children, and RHAC agreed this should be a priority area for state spending. RHAC members agreed with the American Academy of Pediatric Dentistry that, “**tooth decay is one of the most common chronic childhood diseases.** It is five times more common than asthma and it has a significant impact on the well-being of children.”⁵⁴ There are significant financial costs associated with early childhood dental caries, as well as the costs of long-term disease burden: oral disease in children can affect speech, nutrition, learning, playing, and overall quality of life into adulthood.⁵⁵ Oral disease prevention and treatment services for children of all ages, including infants and very young children, offer individual and population-level benefits, such as:

- Disease prevention through education and early development of good health habits;
- Identification of high-risk children;
- Catching oral disease early, before it causes greater issues;
- Help in reaching parents and caregivers to also receive prevention and treatment services; and
- Avoidance of preventable costs, such as emergency room care for dental problems.

Poor rates of reimbursement for services directly impacts the ability of oral health practitioners to provide quality care. Between 2010 and 2015, utilization of dental care within a one-year period decreased in Minnesota for children who are beneficiaries of Medicaid (or CHIP) and private dental

⁵¹ Martin E., Probst J., and Jones K. “Chartbook: Trends in Rural Children’s Oral Health and Access to Care.” Findings Brief. Aug 2017. Available from: http://sc.edu/study/colleges_schools/public_health/research/research_centers/sc_rural_health_research_center/documents/1521oralhealth2017.pdf.

⁵² Minnesota Department of Health, Oral Health Program. “Dental Sealant Programs: cost-effective cavity prevention.” February, 2017. Available from: <http://www.health.state.mn.us/divs/healthimprovement/content/documents-oralhealth/03062017SealantFactSheet.pdf>

⁵³ Mertz E. “The Dental-Medical Divide.” Health Affairs. Dec 2016, vol 35, no 12: 2168-2175.

⁵⁴ Early Childhood Caries (ECC). Available from: <http://www.mychildrensteeth.org/assets/2/7/ECCstats.pdf>.

⁵⁵ Early Childhood Caries (ECC). Available from: <http://www.mychildrensteeth.org/assets/2/7/ECCstats.pdf>.

insurances.⁵⁶ In April 2017, CMS Medicaid officials warned Minnesota that it is at risk of noncompliance with pediatric oral health standards;⁵⁷ the legislature's most recent dental rate increase focused specifically on payment for pediatric services.

These factors have led to numerous child-focused initiatives, both public and private, that largely focus on prevention and promotion strategies.

- The federal Early, Periodic Screening, Diagnosis and Treatment Program (EPSDT), Bright Futures, is a 2016 federal guideline for preventive services (including well-child check-ups) for children enrolled in Medicaid.⁵⁸ Minnesota's version of Bright Futures is Child and Teen Checkups (C&TC), a Medicaid covered service that determines standards for a broad array of health services to children.
- In 2016, Minnesota added a requirement within the Child and Teen Checkups program for fluoride varnish for children through age five who were enrolled in Minnesota Health Care Programs. For children, ages six to 20, fluoride varnishes are recommended, but not mandated. These recommended fluoride varnishes are available during Child and Teen Checkups appointment and at other physician appointments. MHCP will reimburse physician-based fluoride varnish applications up to four times per year. This is in addition to fluoride varnish application from a dental provider.⁵⁹ MHCP is attempting to provide preventive services whenever possible to improve Minnesota's poor dental utilization rates.
- In 2015, the Minnesota Legislature appropriated funding to MDH to develop an Early Dental Disease Prevention Initiative to include a campaign called "Healthy Teeth, Healthy Baby." This community-centered initiative focuses on dental disease prevention in the first three years of a child's life. The goal of the initiative is to educate parents and caregivers of underserved children about oral hygiene, including: understanding the value of prenatal oral health; checking and cleaning baby's teeth and gums, as well as their own teeth and gums; protecting the teeth with

⁵⁶ Health Policy Institute and the American Dental Association, "Dental Care Use Among Children". Available from: https://www.ada.org/~media/ADA/Science%20and%20Research/HPI/Files/HPIgraphic_0317_5.pdf?la=en

⁵⁷ Department of Health and Human Services Centers for Medicare and Medicaid (CMS), "Letter from CMS Director Anne Marie Costello." CMS, April 26, 2017. Available at: <https://www.mndental.org/files/Letter-from-CMS-Director-Anne-Marie-Costello.pdf>

⁵⁸ Minnesota Department of Health. "Oral Health Screening Online Module." Available from: <http://www.health.state.mn.us/divs/fh/mch/webcourse/dental/mod1.cfm>.

⁵⁹ Minnesota Department of Health and Minnesota Department of Human Services. "Minnesota Child and Teen Checkups (C&TC) schedule of age-related screening standards." Available from: <https://edocs.dhs.state.mn.us/lfsrver/Public/DHS-3379-ENG>

A child MHCP recipient is allowed four fluoride varnishes per year billed under the medical code CPT 99188 and 2 billed under the dental code of CDT 1206.

fluoride; feeding healthy food; and taking the baby to a doctor or a dentist when the first tooth appears (or no later than the child’s first birthday).⁶⁰

- The Oral Health Program supports *SEAL Minnesota*, a statewide coordinated school-based dental sealant program. Research shows that dental sealants applied by an oral health professional demonstrate evidence of preventing tooth decay in children.⁶¹ School-based oral health programs are a potential way to reach underserved children, decrease the prevalence of dental disease, and reduce the hours a child is out of school and a parent is away from work to meet appointments.⁶²

Recommendations

Recommendation 1.3 details	Key stakeholders
<ul style="list-style-type: none"> ● Support “Healthy Teeth, Healthy Baby” (Minnesota Early Dental Disease Prevention Initiative), which originated in 2016. ● Require early childhood oral screening prior to school enrollment, akin to school enrollment screening requirements for immunizations, vision and hearing. ● Implement prevention programs that use all members of the dental team, including connectors or navigators such as community health workers who can help with communication and education of parents, referral, and follow-up. ● Engage dental hygienists in conducting oral health screenings based on the Caries Risk Assessment and Management (CAMBRA) model and the Basic Screening Survey (BSS) criteria developed by the Association of State & Territorial Dental Directors (ASTDD). ● Increase support for oral health education in rural schools and other community settings that parents and children frequent. 	<ul style="list-style-type: none"> ● Minnesota Legislature ● Minnesota Department of Health ● Philanthropy ● Dental educators ● Oral health providers

⁶⁰ Minnesota Department of Health. “Healthy Teeth, Healthy Baby.” Available from: <http://www.health.state.mn.us/divs/healthimprovement/programs-initiatives/in-communities/healthyteeth-healthybaby.html>.

⁶¹ Anneli Ahovuo-Saloranta, Helena Forss, Tanya Walsh, Anne Nordblad, Marjukka Makela, Helen Worthington. “Pit and fissure sealants for preventing dental decay in permanent teeth.” Cochrane Database of Systematic Reviews. Available from: <https://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0011213/>

⁶² Minnesota Department of Health. “Dental Sealant Program.” Available from: <http://www.health.state.mn.us/divs/healthimprovement/programs-initiatives/in-schools/dentalsealant.html>

Rationale

RHAC concluded that pediatric-focused efforts are essential in rural areas, in particular, where scarce dental services for low-income families make early disease prevention, education and risk management especially important, but provided at insufficient levels. These services need to reach more rural children earlier, and in settings where parents and caregivers are also be present and directly engaged in education and follow-up. To achieve this, RHAC recommends:

- **Continued support of Healthy Teeth, Healthy Baby and the Child & Teen Checkups.** The benefits associated with Child and Teen Checkups provide a key step in improving Minnesota's low rate of screening and dental care for publicly insured children. Healthy Teeth, Healthy Baby ensures that infants and caregivers receive proper education at an early stage of tooth development.

Private funders such as Delta Dental of Minnesota Foundation, United Way and the Healthier Minnesota Community Clinic Fund, among others, have invested heavily in these services, including support for organizations that provide oral health services to children in clinics and school-based programs. These programs, in addition to federal funding to MDH, provide oral disease prevention education, sealants, preventive and restorative care for many uninsured and underinsured children across rural Minnesota.

Seeing the success of school-based screening programs for immunizations, hearing and vision, RHAC further recommends that Minnesota:

- **Require oral health screenings as part of school enrollment and provide reimbursement for the cost of services** to provide an opportunity for check-ups, fluoride varnishes and education for the child and caregiver prior to kindergarten.⁶³

RHAC also recommends **strategies to maximize the existing oral health workforce serving rural children**, including strategies such as:

- **Approach preventive care with a team-based model.** Engage all members of a dental team, include community health workers and other professions in educating and following-up with parents and caregivers, and encourage and authorize all members of the dental team to practice at the top of their license.

Dental hygienists represent a more robust workforce in rural Minnesota than dentists, but most are currently underutilized as a profession that is capable of providing screenings, outreach,

⁶³ Minnesota Statutes. 121A.17 School Board Responsibilities. Available from: <https://www.revisor.mn.gov/statutes/cite/121A.17>

education, and dental services.⁶⁴ New models of care incorporate the skills of dental hygienists in reaching underserved populations. Working with dentists through a collaborative agreement, dental hygienists can independently provide preventive and therapeutic services, such as screenings or application of sealants. Many CPDHs (collaborative practice dental hygienist) work in community settings and schools to provide services to those who experience challenges in accessing oral health services.⁶⁵ RHAC found that the oral health professionals working under collaborative agreements with dentists often reach out to non-traditional locations. There is, however, still little understanding of the agreements and how to best to use them. See Recommendation Two for more information on how Collaborative Practice Dental Hygienists can expand and maximize the oral health workforce.

- **Engage dental hygienists in conducting screenings based on the Caries Management by Risk Assessment model and the oral screening using the Basic Screening Survey.** These models are considered best practice approaches to early screening and prevention of dental caries.
- **Provide oral health education in schools and community settings.**

Create more opportunities to reach children and educate families about the need for prevention and screening, using the skills of dental hygienists, dental hygienists working under a collaborative practice agreement, and other allied health professionals and community health educators.

⁶⁴ Pew Charitable Trust. “When regulations block access to oral health care, children at risk suffer. The school dental sealant program dilemma” Issue Brief. August, 2018. Available at: <http://www.pewtrusts.org/en/research-and-analysis/issue-briefs/2018/08/when-regulations-block-access-to-oral-health-care-children-at-risk-suffer#0-overview>

⁶⁵ Minnesota 21st Century Dental Team: Toward Access for All. Normandale Community College. <http://www.normandale.edu/mndentalteam>

Recommendation Set 2

Expand and maximize the rural oral health workforce.

The rural oral health system faces difficulty across the age spectrum for dentists. Problems exist in:

- Recruiting and retaining a sufficient number of young dentists, and
- Transitioning the practices of retiring dentists to new providers in order to sustain oral health services in their communities.

Dentists can extend their ability to meet the need for oral health services in rural areas through collaboration with other oral health professionals educated in preventive and basic restorative care. While some of the challenges in attracting young oral health professionals to practice in rural areas, may be difficult to overcome, RHAC concluded that many issues could be significantly addressed by:

- Developing partnerships among professions;
- Creating a sustainable funding stream for services; and
- Planning new ways to educate, develop and use oral health professionals, such as dental therapists and collaborative practice dental hygienists.

To ensure a sufficient and sustainable oral health workforce for rural Minnesota, RHAC urges policymakers and other stakeholders to consider the following measures.

Recommendations	Key stakeholders
<p>2.1 Develop a central online service for the state’s oral health workforce.</p> <ul style="list-style-type: none"> ● Connect/match oral health professionals with communities and practice opportunities in rural MN. <ul style="list-style-type: none"> ▪ Provide information about each community ▪ Provide tools for communities and employers to build and promote incentives ▪ Provide support for transitions. ▪ Provide information and opportunities for younger students (high school, etc.) interested in oral health. 	<ul style="list-style-type: none"> ● Minnesota Legislature ● Funders ● Dental schools, associations, nonprofit(s) ● Dental hygiene and dental assisting education programs
<p>2.2 Encourage greater use of Collaborative Practice Dental Hygienists (CPDH).</p> <ul style="list-style-type: none"> ● Refine MN Statute 150A.10 to clarify and simplify use of the Collaborative Practice Dental Hygiene model. ● Simplify billing and reimbursement processes. Make rates, type and frequencies of billable services more consistent, including MHCP reimbursement for screening and assessment, and methods for tracking provider and location of service. ● Conduct outreach and education with dental providers on how CPDHs can be used as an extension of practice in a variety of settings. ● Refine DH workforce survey administered by the Department of Health during license renewal process to capture information about use of collaborative practice agreements. 	<ul style="list-style-type: none"> ● Minnesota Legislature ● Rulemaking bodies ● Minnesota Department of Human Services ● Minnesota Department of Health ● American Dental Association ● Minnesota Dental Association
<p>2.3 Expand awareness and understanding of how dental therapists can be incorporated into rural practices.</p> <ul style="list-style-type: none"> ● Conduct concerted efforts to educate dentists on how dental therapists could be used more in rural Minnesota. ● Help disseminate and expand on MDH’s new Dental Therapy Toolkit. ● Convene an annual symposium where rural dentists employing dental therapists share their experiences. ● Incorporate and support the “lunch and learn” sessions the MN Dental Therapy Association (MDTA) will be conducting. 	<ul style="list-style-type: none"> ● MN Dental therapy Association ● Minnesota Dental Association ● Minnesota Dental Hygienists’ Association ● Dental schools ● Dentists, other oral health professions

2.1 Develop a central online service for the state’s oral health workforce.

Note: The Minnesota Dental Association has begun work to update its online [Career Center and Job Board](#) to incorporate at least some of these features.

History

Students graduating from dental school face increasingly large debt from their student loans; in 2015, the average debt load for a dental graduate was \$225,567.⁶⁶ High debt loads upon graduation is further complicated by declining dental salaries.⁶⁷ A key recruitment and retention strategy has been loan forgiveness or loan repayment programs. Minnesota is fortunate to have **public and private programs focused on introducing and attracting dental professionals to rural practice**, including loan forgiveness and dental education programs in rural communities. These efforts have brought oral health professionals to rural Minnesota, and MDH workforce surveys confirm they are effective strategies for rural recruitment and retention.

RHAC has concluded, however, that more is needed to address rural oral health workforce gaps.

Specifically, it found the following:

- Traditional methods of **advertising – or finding – practice opportunities**, such as advertising in industry magazines, on job boards and through recruiters, don’t work as well for filling rural job openings and completing dental practice sales.
- Rural practice often entails **advantages** that might not be immediately apparent, such as local amenities or eligibility for programs that

Loan Forgiveness & Loan Repayment

The Office of Rural Health and Primary Care (ORHPC) at the Minnesota Department of Health offers [loan forgiveness programs](#) for oral health professions including dentists, dental therapists and advanced dental therapists. Dentists must be either students, residents in dental programs or licensed dentists that serve 3-4 years and have 25 percent of their patient visits that are public programs (and/or a sliding fee scale). Dental therapists must also plan to work for 3-4 years in a rural area. Amounts are based on a percent of the average educational debt in a profession.

The ORHPC also offers **loan repayment programs** for dentists and dental hygienists who work in a federally designated Health Professional Shortage Area (HPSA). This program’s goal, funded from both the state and federal government, is to improve retention of oral health providers in underserved communities. Private organizations such as **Delta Dental of Minnesota** offer additional **loan repayment** options for dentists in rural areas serving patients enrolled in public programs.

⁶⁶ American Dental Education Association (ADEA), “Survey of Dental School Scholars, 2015 Graduating Class.”

⁶⁷ American Dental Association Health Policy Institute and Bureau of Economic Analysis, US Census Bureau, “Current Population Survey.” 2015.

are available when a community is in a Dental Health Professional Shortage Area (DPSA).⁶⁸

- Rural communities may need to become more involved in helping to attract oral health professionals by offering **additional incentives**, such as employment opportunities for spouses, office space, tax incentives, and dentist-to-community partnerships to help ensure success of a practice. RHAC recognizes that communities may need support in learning how to engage in these practices.
- Oral health professionals just entering – or leaving – rural practice could use assistance in navigating these **transitions**, including resources about creative approaches that go beyond the traditional scenario of a retiring dentist simply selling his/her practice to a young dentist who begins practicing and running a business on his/her own. [See: [new models of oral health delivery](#)]
- **Collaborative Practice Dental Hygienists and Dental Therapists** and the practices that are interested in working with them often have difficulty finding each other; this is especially true when such positions are new to the practices. In addition, more information is needed among the oral health community about the requirements for collaborative agreements with dental hygienists, as well as how to engage and collaborate with emerging professions, such as dental therapists.

Recommendations

Recommendation 2.1 details	Key stakeholders
<ul style="list-style-type: none"> ● Connect or match oral health professionals with communities and practice opportunities in rural Minnesota. ● Provide information about each community (e.g., whether in a designated Dental Professional Shortage Area, what incentives are available, amenities, and more). ● Provide tools for communities and employers to build and promote incentives (e.g., expanded loan forgiveness, available office space or buildings, tax incentives, start-up funds, etc.). ● Provide support for transitions. <ul style="list-style-type: none"> ▪ Technical assistance for dentists leaving practice. 	<ul style="list-style-type: none"> ● Minnesota Legislature ● Funders ● Dental schools, associations, nonprofit(s) ● Dental hygiene and dental assisting education programs

⁶⁸ Dental Health Professional Shortage Area (DPSA) is a federal designation that indicates an area as having a shortage of dentists. Shortage areas are designated by the Health Resources and Services Administration (HRSA) Bureau of Health Workforce (BHW). Minnesota Department of Health, Office of Rural Health and Primary Care. Dental Health Professional Shortage Areas. Collected by the Minnesota Oral Health Statistics System, Minnesota Department of Health, Oral Health Program, June 2014.

Recommendation 2.1 details	Key stakeholders
<ul style="list-style-type: none"> ▪ Connections to practice support (e.g., shared technology, administrative functions). ▪ Support for OH professionals entering practice (e.g., information about running a practice, mentors). ● Provide information and opportunities for younger students (high school, etc.) interested in oral health. 	

Rationale

RHAC concluded that a **centralized, online resource** (workgroup members dubbed it a kind of “Match.com”) for connecting oral health professionals, practices and communities could help address these gaps. States like Iowa, that offer some of these features, could serve as partial models on the way to developing the fuller capabilities recommended by RHAC.

RHAC recommends that an online resource tool include services designed to:

- Provide helpful information about a community;
- Provide transitional support services; and
- Provide information about opportunities for younger students.

The Minnesota Dental Association, which operates a Career Center and Job Board, has already begun to implement some of the recommended changes, including, notably, a rural recruitment section designed to connect providers with rural communities. Maintaining this job board, along with efforts such as that of the Minnesota Dental Hygienists Association to use social media, will help sustain efforts to recruit oral health professionals to rural Minnesota.

2.2 Encourage greater use of Collaborative Practice Dental Hygienists.

History

Dentists alone will be unable to meet the needs of rural Minnesota, particularly in the more geographically isolated areas and among non-mobile populations, such as residents of long-term care facilities. Minnesota has been working to establish expanded roles for allied oral health professionals (dental therapists, dental hygienists, dental assistants, health educators, etc.), who work under the supervision of dentists. RHAC found that allied oral health professionals are currently underutilized in rural Minnesota, but hold great potential for helping increase access and providing more comprehensive care.⁶⁹

Dental hygienists represent a comparatively more **robust workforce** in rural Minnesota:

- Dental hygienists and dental assistants tend to be younger than dentists and plan to practice for a longer time. There is a greater proportion of dental hygienists under age 45 in small rural and isolated areas than in other parts of the state.⁷⁰
- Dental hygienists are better distributed in rural areas of greatest need. There are 51 dental hygienists per 100,000 people in rural areas, compared to just 30 dentists.
- Planning data indicates a potential surplus of dental hygienists in the coming years.⁷¹

Collaborative practice dental hygienists (CPDH) provide preventive and therapeutic services independently and often work outside the traditional dental clinic setting.⁷² They can provide services within the full scope of practice under a dental hygiene license and work under the terms agreed to by their collaborating dentist. A dental assistant can also work with a CPDH in a non-clinic setting. With their ability to practice both within and outside a traditional dental practice, collaborative practice dental hygienists can bring oral health services, such as oral health education, screenings and preventive care, to numerous rural settings, including long-term care and nursing facilities, schools, hospitals and primary care clinics. They have the potential to expand access to a significant degree.

⁶⁹ Allied health professionals are oral health professionals that support oral health programs and provide health services such as identification, evaluation and prevention of diseases and disorders.

<https://www.ruralhealthinfo.org/toolkits/oral-health/2/allied-health-model>

⁷⁰ Minnesota Department of Health, Health Workforce Analysis Unit. Health Workforce Analysis Survey 2016-2017.

⁷¹ Health Resources and Services Administration, Bureau of Health Workforce, "National and state-level projections of dentists and dental hygienists in the US, 2012-2025" February, 2015. Available from:

<https://bhw.hrsa.gov/sites/default/files/bhw/nchwa/projections/nationalstatelevelprojectionsdentists.pdf>

⁷² Minnesota 21st Century Dental Team: Toward Access for All. Normandale Community College.

<http://www.normandale.edu/mndentalteam>

Recommendations

Recommendation 2.2 details	Key stakeholders
<ul style="list-style-type: none"> ● Conduct outreach and education with dental providers on how CPDHs can be used as an extension of practice in a variety of settings, including primary care and hospitals, and explore how hygienists could be used more extensively in such settings. ● Simplify billing and reimbursement processes, and make rates, type and frequencies of billable services more consistent, including MHCP reimbursement for screening and assessment, and methods for tracking provider and location of service. ● Refine MN Statute 150A.10 to clarify and simplify use of the model, including streamlining referral systems, removing duplication already mandated elsewhere, and allowing dental assistants to provide preventive services (within their current scope of practice and through a collaborative agreement with a dentist) in community-based settings while working with a dental hygienist. ● Refine DH workforce survey administered by the Department of Health during license renewal process to capture information about use of collaborative practice agreements. 	<ul style="list-style-type: none"> ● Legislature ● Rulemaking bodies ● Department of Human Services ● Minnesota Department of Health ● American Dental Association ● Minnesota Dental Association ● Minnesota Dental Hygienists' Association

Rationale

Collaborative practice dental hygiene is, in the words of one workgroup member, “**woefully underutilized.**” As of 2017, only 11 percent of the state’s dental hygienists have a collaborative agreement, and few make use it. Very few dentists have a collaborative agreement with a dental hygienist to provide patient care, though dentists in small and large rural areas are slightly more likely than those in urban areas to have collaborative agreements.⁷³

RHAC’s recommendations aligned with similar proposals developed by the Collaborative Dental Hygiene Practice Advisory Committee in 2016.⁷⁴ Following the completion of RHAC’s deliberations, many of the proposals recommended by the Collaborative Practice Dental Hygiene Advisory Committee passed into law during the 2017 legislative session. The subsequent updates included:

⁷³ Minnesota Department of Health, Health Workforce Analysis Unit. Health Workforce Analysis Survey 2016-2017.

⁷⁴ The Collaborative Dental Hygiene Practice Advisory Committee is funded by the Health Resources and Services Administration.

- **Reform of the state’s current law (150A.10) governing collaborative practice.** In August 2017, Minnesota expanded collaborative practice to include dental assistants for certain services and circumstances.⁷⁵
- **Better tracking and research with the Department of Health’s workforce analysis survey.** In 2016, the Minnesota Department of Health added and updated questions in the oral health workforce surveys to better understand and track collaborative practice dental hygienists. In 2018, additional modifications were made to track dental assistants. The surveys are integrated with the online license renewal process to help increase the response rate and provide more extensive data.

⁷⁵ See [House Research Bill Summary for H.F. 1712, dated March 13, 2017](#), for more detail on these changes.

2.3 Expand awareness and understanding of how dental therapists can be incorporated into rural practices.

History

Dental therapists (DTs) were first authorized in Minnesota in 2009, and the first dental therapist was licensed in 2011. Dental therapists provide restorative and preventive services under varying levels of supervision of a collaborating dentist. DTs are required to primarily serve low-income, uninsured and underserved patients, which includes a high percentage of Medicaid recipients. Dental therapists with a master's degree can become an Advanced Dental Therapist (ADT) after completing 2,000 hours of practice and passing a Minnesota Board of Dentistry certification exam. ADTs have an expanded scope of practice and work under general supervision.⁷⁶ Sixty-one percent of dental therapists are ADTs with another 23 percent in the process of becoming an ADT. Fifty-three percent of ADTs spend half or more of their time on tasks specific to advanced dental therapy.⁷⁷

Like collaborative dental hygiene practice, dental therapy can expand oral health access by extending the reach and impact of dentists and providing basic care within and outside traditional dental practices.

- Dental therapists' numbers are slowly increasing, and as their profession evolves they are locating in more settings and areas of the state.
- Like dental hygiene, dental therapy is a relatively young and stable profession. Eighty-four percent of dental therapists plan to remain in the field for more than 10 years, and only 5 percent plan to leave the field within five years.⁷⁸
- Although the largest group employing dental therapists is private dental practices, dental therapists are more likely to work in a community-based or non-profit setting or clinic than any other dental profession.⁷⁹

RHAC found that there has been more acceptance of the profession as job availability for dental therapists has grown – 93 percent of the state's dental therapists were employed in 2016, up from 86

⁷⁶ Minnesota Department of Health, "Dental Therapy Toolkit: A Resource for potential employers." Available from: <http://www.health.state.mn.us/divs/orhpc/workforce/emerging/dt/2017dttool.pdf>

The Board of Dentistry defines different types of supervision (Minnesota Rule 3100.0100, subpart 21). "General supervision" means the supervision of tasks or procedures that do not require the presence of the dentist in the office or on the premises at the time the tasks or procedures are being performed but require the tasks be performed with the prior knowledge and consent of the dentist.

⁷⁷ Minnesota Department of Health Workforce Analysis Unit, 2018 and Minnesota Board of Dentistry.

⁷⁸ Minnesota Department of Health, Health Workforce Analysis Unit, 2018.

⁷⁹ Minnesota Department of Health, Health Workforce Analysis Unit, 2018.

percent in 2015 and 74 percent in 2014⁸⁰. Many dentists, however, are still hesitant about the profession and have yet to adopt dental therapy into their practices. RHAC found several reasons for this:

- **Lack of awareness about the benefits of dental therapy services**, which include increasing rural access as well as other advantages to a practice, such as increasing productivity and maximizing profits.
- **Misunderstanding over legal requirements.** “There’s a lot of misinformation out there about dental therapy,” noted one member. “For example, a dental therapist may work in a dental shortage area *or* in a practice setting where they will see at least 50 percent Medicaid patients, but most dentists are under the impression they need to meet both criteria. That type of thing scares dentists off the idea altogether.”
- **Lack of knowledge about how to incorporate a dental therapist into their practice**, including how to operationalize workflow and other processes related to providing patient care.

Recommendations

Recommendation 2.3 details	Key stakeholders
<ul style="list-style-type: none"> ● Conduct concerted efforts to educate dentists on how dental therapists could be used more in rural Minnesota. Ideally, this would involve the MDA, the MN Dental Therapy Association and the dental school. ● Help disseminate and expand on MDH’s new Dental Therapy Toolkit, which was released in February 2017 and lays out steps and components needed. ● Convene an annual symposium where rural dentists employing dental therapists share their experiences, including the barriers and benefits they experienced. ● Incorporate and support the “lunch and learn” sessions the MN Dental Therapy Association (MDTA) will be conducting in the 371 clinics across Minnesota that are in HPSAs. The MDTA will also be developing a website to support education and outreach. 	<ul style="list-style-type: none"> ● Minnesota Dental Therapy Association ● Minnesota Dental Association ● Dental schools ● Dentists, other oral health professions

Rationale

Dental therapy, similar to collaborative practice dental hygienists, has potential to increase access to oral health services in rural communities. Support is needed from oral health practitioners,

⁸⁰ Minnesota Department of Health, Health Workforce Analysis Unit, 2018.

professional associations and educational programs to build knowledge and disseminate accurate information about the new professions. RHAC recommends:

- **Educating stakeholders about the practice benefits of dental therapy and sharing specific examples of how it has been incorporated into rural operations.**

A comprehensive **Dental Therapist Toolkit** for prospective dental therapist employers was issued by the Minnesota Department of Health in 2017.⁸¹ The Minnesota Dental Therapist Research Stakeholder Group, led by Minnesota Department of Health staff, compiled a formal list of Minnesota-focused dental therapy research studies, which, by early 2018, included 35 different projects.⁸² RHAC concluded, however, that a more concerted effort is needed and recommends:

- **Actively disseminate the resources available in the dental therapy toolkit**, particularly among rural Minnesota’s smaller dental practices.

Ideally, information sharing will occur peer-to-peer by rural dentists and staff with direct experience. This informal sharing is important, however, RHAC recommends formal opportunities to educate and share information about dental therapy.

- **Support lunch-and-learn events in rural Minnesota.** Dentists, dental therapists and their respective professional associations have been conducting events and educational sessions around Minnesota to inform the oral health field.
- **Convene an annual symposium.** Symposiums and similar events are a more formal way of bringing partners and stakeholders together to share best practices and resources with a wider audience.

Dental Therapist Toolkit

Dental therapy is a relatively new profession that has existed in Minnesota since 2009.

Dental Therapists and Advanced Dental Therapists play a key role in increasing access to dental care and preventing emergency room visits for dental-related problems.

In order to assist oral health professionals in understanding the scope of practice, supervision, reimbursement and potential for this profession, the Office of Rural Health and Primary Care created a Dental Therapy Toolkit.

[Dental Therapy Toolkit](#)

⁸¹ Minnesota Department of Health, “Dental Therapy Toolkit: A Resource for Potential Employers”. St. Paul, 2017. Available from: <http://www.health.state.mn.us/divs/orhpc/workforce/emerging/dt/2017dttool.pdf>

⁸² Minnesota Department of Health, “Research on Implementing Dental Therapists in Minnesota.” St. Paul, 2018.

Recommendation Set 3: Develop new models of rural oral health delivery.

RHAC recommends building new oral health models to meet current and future needs for oral health services in rural Minnesota. To expand access to rural oral health services – in private practices and among safety-net organizations, RHAC urges policymakers and other stakeholders to consider the following models of oral health service delivery.

Recommendations	Key stakeholders
<p>3.1 Pilot test hub-and-spoke or other regional model(s) for multi-site dental practices.</p> <ul style="list-style-type: none"> ● To demonstrate how oral health services might be “regionalized” or at least combined into multi-site practices with extended geographic reach and shared administrative or other services. 	<ul style="list-style-type: none"> ● Rural private dental practices ● Regional dental providers ● Minnesota Dental Association
<p>3.2 Pilot test regional Center(s) for Rural Oral Health.</p> <ul style="list-style-type: none"> ● Serve as base for clinics in rural areas with inter-professional teams. ● Coordinate with the Minnesota Collaborative Rural Oral Health Project (MN-CROHP) and other oral health education programs. ● Demonstrate and test innovative rural models. ● Provide care and resources for underserved communities. ● Provide continuing education resources. ● Serve as a neutral gathering place for different sectors and partners of oral health. ● Pilot sites should build on and collaborate with the existing network of rural dental providers and dental education programs. ● 	<ul style="list-style-type: none"> ● Oral health education and training programs ● Private dental practices ● Federally qualified health centers and other safety net dental providers ● Minnesota Dental Association ● Minnesota Dental Therapy Association ● Minnesota Dental Hygienists’ Association

Recommendation	Key stakeholders
<p>3.3 Facilitate use and expansion of portable delivery systems and teledentistry.</p> <ul style="list-style-type: none"> ● To allow a greater geographical reach, connect community-based and clinical settings, and help dentists to work more frequently with dental therapists, advanced dental therapists and collaborative practice dental hygienists. ● Include teledentistry as part of regional pilot(s) recommended above. ● Provide funding for purchase of needed equipment in rural settings. ● Disseminate new DHS guidelines for attestation and billing of teledental services. 	<ul style="list-style-type: none"> ● Public and private funders ● Minnesota Department of Human Services ● Minnesota Administrative Uniformity Committee
<p>3.4 Encourage Critical Access Hospitals (CAHs) to open dental units.</p> <ul style="list-style-type: none"> ● Provide incentives, possibly via higher reimbursement levels made possible through emergency room savings, for CAHs that operate or house such services. ● Partner with the Minnesota Hospital Association, the Minnesota Dental Association and others to bring CAHs and dental experts together to learn from hospitals that operate dental clinics and examine how such partnerships might expand in rural Minnesota. Build on the relationship between oral health and overall health, including the potential to drive down costs for chronic diseases and ED use. 	<ul style="list-style-type: none"> ● Critical Access Hospital and other rural health administrators ● Oral health practitioners
<p>3.5 Add an oral health member to the Rural Health Advisory Committee.</p> <ul style="list-style-type: none"> ● Amend Minnesota Statutes 144.1481 to add a new membership category of “oral health professional,” to allow permanent voice for oral health on the committee. 	<ul style="list-style-type: none"> ● Legislators ● Minnesota Department of Health ● Rural Health Advisory Committee

3.1 & 3.2 Pilot test new models of oral health delivery

History

The dominant model for rural dental services has long been a private, for-profit practice owned and operated by one or two dentists and supported with allied dental staff. This traditional model, while effective for much of the population and for the many dentists interested in private practice cannot meet all the need in rural Minnesota. Over the last 30 years, nonprofit organizations and volunteers have emerged as another source of oral health services in parts of rural Minnesota. Typically, they have stepped in to fill gaps and address barriers to care faced by uninsured patients and those covered by publicly-funded insurance. Other models of oral health care in some communities include: clinics staffed by dental students, with support from the University of Minnesota, Minnesota State and other dental education programs; hospitals with dental services; public health dental programs, such as school sealant programs; and very limited oral health services provided in primary care clinics. Despite this assortment of providers, access to oral health services in most parts of rural Minnesota is increasingly inadequate, and even more so in isolated areas and among those without dental insurance or the means to pay for services on their own. Innovations are needed to be able to:

- Reach across **greater geographic distances**, and bring services to **nontraditional settings**, including community sites where social, educational and general health services are provided.
- Deploy **allied dental professionals at the top of their licenses**, in as many ways as possible, and in environments that provide access to more patients, including isolated and domiciled rural elderly, families with young children, and patients in medical and mental health settings.
- **Maximize dentists' expertise and skills** by reserving their time for more complex procedures and consultation with allied professionals (dental assistants, dental hygienists, or dental therapists) doing initial assessments, preventive services, and basic restoration.
- **Emphasize prevention, screening and early treatment** to minimize the need for – and costs of – restorative and specialty services.
- Integrate – or at least coordinate – oral health care with **medical and other services** (such as through an ACO.)
- Use **interdisciplinary teams** that can help break down the non-dental barriers to oral health, such as community health workers, collaborative practice dental hygienists or health educators.
- Provide ways for dentists and other dental professionals to **work in group practices**, in part to share the risk and costs that can dissuade young professionals from rural practice.

These strategies represent fundamental change for rural dental practices, and there is no single model or answer for how best to implement them. While innovations and new models are beginning to emerge and even transform oral health delivery, many of these models are based on urban and suburban experience. More *rural-specific* development and experience is needed. While this will take time, experimentation, and in some cases funding, innovators regularly demonstrate that rural

providers and communities can be excellent “labs.” Creativity and agility are key attributes for viability in small, rural settings, where financial and workforce resources are often minimal. Creative models emerging from rural settings include new approaches to team-based care, collaborative dental hygiene practice and innovative uses of telehealth.⁸³

RHAC concluded that to meet these growing needs and ensure long-term access to sustainable services, rural Minnesota requires new models of delivering oral health care. RHAC urges policymakers to **support two types of pilot programs**, including:

- Models for multi-site dental practices that support services across long distances.
- Regional centers to address workforce, access and sustainability.

3.1 Practice models such as hub-and-spoke or other regional model(s) that support multi-site dental practices.

Recommendation 3.1 details	Key stakeholders
<ul style="list-style-type: none"> ● Demonstrate how oral health services might be “regionalized” or at least combined into multi-site practices with extended geographic reach and shared administrative or other services. ● Secure funding to help with start-up capital, perhaps via loan. ● Models might include: <ul style="list-style-type: none"> ▪ Group practices that combine individual ownership/operation with shared administrative or practice management functions ▪ Nonprofit models ▪ Health system-based models ▪ “Hybrid” models that combine elements of the above features ▪ Teledentistry 	<ul style="list-style-type: none"> ● Rural private dental practices ● Regional dental providers such as Rice Regional Dental Clinic ● Minnesota Dental Association

Regional or multi-site practice pilots would help demonstrate how oral health services might **extend geographic reach**. These projects, ideally supported with **start-up capital via a grant or loan program**, could test and further develop models such as the following:

⁸³ Zelmer J. “Learning from Rural Health Innovation.” *Healthcare Policy*. 2013; 8(3):8.

- **Group private practices that combine individual ownership/operation with shared administrative or practice management functions**, including state-of-the-art technology and equipment that might otherwise be out of financial reach for solo practitioners or nonprofits.
- **Regional operations with satellite sites**, perhaps through hub-and-spoke structures, could be linked and staffed creatively and comprehensively, including dental therapists and dental hygienists that could provide assessments and make referrals to a network of dentists, including specialists.
- **Geographically distributed oral health teams**, perhaps rotating through multiple communities; this would be particularly useful in communities and areas that are not large enough to support a permanent practice.
- **New uses of technology**, such as telehealth and health information technology, to link accessible care locations so patient care is seamlessly connected between community-based and clinical settings. (See recommendation 3.3 for more detailed recommendations for telehealth.)
- **Local government or nonprofit purchase of dental practices** that were previously owned by private practice dentists.
- **Affiliations or shared facilities** with hospitals, other health providers and other community-based resources, such as elder care facilities and schools.

Pilot programs could build on emerging models that incorporate some of these elements, including those of some existing programs, such as the regional approach used by Apple Tree Dental in rural Minnesota, a multi-site practice out of Slayton using dental therapists, and by a hybrid group practice with 38 dentists spread across a rural region of Iowa and Nebraska. Examples of oral health services affiliated or integrated with medical services in rural areas are also emerging in Minnesota and elsewhere. Planning for the pilots must take into account the practice management implications of multi-site models, such as scale, additional clinical

Hybrid Group Practice in Rural Nebraska and Iowa

Family First Dental owns and operates 35 dental offices across rural Iowa and Nebraska. Family First purchases dental practices – when invited – on behalf of the local dentist. Then, over the course of three years, help to renovate and develop a business model so the practicing dentist can purchase their practice back from the organization. Dentists have the option to purchase their practice back or they can stay with Family First.

The goal of this model is to allow local dentists to focus on their practice and not on their business, helping to keep dental services within local communities.

[Not so isolated: Company supports dentists in rural settings](#)

support, and mentorship opportunities, as well as challenges, such as lack of Internet capabilities or other barriers to shared databases and other IT systems.

3.2 Regional center(s) for rural oral health to address workforce, access and infrastructure.

Recommendation 3.2 details	Key stakeholders
<ul style="list-style-type: none"> ● Serve as base for training/service clinics in rural areas with inter-professional teams, training for DTs, opportunities for DHs and DAs to intern in non-traditional rural settings, collaboration with health care providers and CHWs ● Coordinate with the Minnesota Collaborative Rural Oral Health Project (MN-CROHP) and other oral health education programs, and other health professional training, as well as pipeline programs. ● Demonstrate and test innovative rural models, including: <ul style="list-style-type: none"> ▪ Technology-supported remote collaboration and supervision, including dentists, dental hygienists and other professionals working in community-based locations (mobile clinics, long-term care facilities, isolated and homebound rural elderly, patients in hospitals, and settings where parents and children are both present, such as WIC, walk-in clinics). ▪ Integration of oral health with medical and/or mental health care. ▪ Innovative approaches to provide prevention and treatment services to children. ● Provide care and resources for underserved communities, including help in finding dental practices that accept public insurance and offer affordable care to the uninsured. ● Provide continuing education resources, including around innovations and inter-professional practice. ● Serve as a neutral gathering place for different sectors and partners of oral health – both for-profit and nonprofit - to develop shared guidelines, discuss emerging models, etc. ● Pilot sites should build on and collaborate with the existing network of rural dental providers and dental education programs – including the University of Minnesota and Minnesota State Colleges and Universities – and increase rural training capacity in areas of the state where treatment capacity is low (e.g., shortage areas). 	<ul style="list-style-type: none"> ● Oral health education and training programs. ● Private dental practices ● Federally qualified health centers and other safety net dental providers ● Minnesota Dental Association ● Minnesota Dental Therapy Association ● Minnesota Dental Hygienists’ Association

RHAC also recommends a pilot program to develop and test one or more regional Centers for Rural Oral Health that would be situated in Greater Minnesota and based on the Eastern Kentucky Regional Dental Program. While the pilot programs recommended above would focus on dental practice models, this program would help address the workforce, access and infrastructure issues identified by RHAC, including the need for:

- **Increased rural training capacity.**

Minnesota is fortunate to have strong dental education programs through both Minnesota State and the University of Minnesota. Many of these programs include rural components, whether through their location in rural communities or by offering training and mentoring opportunities in Greater Minnesota, and/or by recruiting students from rural areas. These programs yield a number of oral health professionals each year who go on to practice in rural areas. RHAC concluded, however, that **more is needed to strengthen this pipeline** to ensure an adequate number of oral health professionals interested in practicing in rural Minnesota. More opportunities are needed for hands-on training and experience that is rural-specific and that positions students and graduates for new models of practice and other innovations. Many of the existing dental programs in the state attempt to address these needs, but find it difficult to reach significant levels given the size and distance barriers that exist between rural programs and training sites.

RHAC concluded that establishing one or more **permanent rural “hubs” for oral health training and service** would build on the state’s existing network of dental education programs and **could strengthen and expand Minnesota’s rural health education capacity and produce a greater number of practitioners prepared for and committed to rural practice.** Ideally, such a hub would exist in collaboration with other health education programs, local communities and established dental practitioners. It could serve as

Eastern Kentucky’s First Regional Dental Program

The University of Kentucky achieved success in treating tooth decay among children in the Appalachian counties of eastern Kentucky. This model includes a fixed dental clinic attached to the University of Kentucky’s Center for Rural Health – a center that already housed a family medicine residency program, clinic and State Office of Rural health – and a Ronald McDonald House Charities mobile dental unit. The fixed dental clinic provides services to both adults and children. Dental residents and medical residents work together to provide multi-disciplinary care. The mobile clinic travels to Head Start programs, daycare centers and public schools. Children receive dental exams, cleanings, fluoride varnish, and education and sealants when appropriate. Since the program started, childhood tooth decay has decreased (23 percent for elementary school children, 22 percent for preschool aged children). The program has also demonstrated reduction in the rates of urban dental needs.

a more accessible location for continuing education for rural dental professionals, and for partners of oral health – both for-profit and nonprofit, to collaborate and share information.

- **Research, testing and demonstration of innovative methods and models in rural settings.**

A Center for Rural Oral Health could demonstrate and test new approaches at greater scale and speed, particularly if operated in collaboration with dental education institutions and others interested in rural health research and evaluation. Such a center could also serve as an effective, central entity for securing funding and other resources that could be leveraged across multiple partners and projects.

Partnering with existing research efforts, such as the Dental Therapy Research Stakeholder group and others could help expand efforts related to dental therapists.⁸⁴

- **Expanded rural access to state-of-the-art oral health services and technology.**

A Center for Rural Oral Health would benefit bring additional providers, resources and expertise into rural Minnesota, including portable services capable of reaching isolated settings and serving those unable to afford or otherwise access existing sites of dental care.

RHAC recommends support for **pilot programs** to demonstrate how such facilities might operate and to determine which resources would be needed for long-term sustainability and effectiveness. Even in their testing phase, such pilots would expand oral health services in rural Minnesota.

⁸⁴ The Dental Therapy Research Stakeholder group is funded by a Health Resources and Services Administration Grant (HRSA) of the U.S. Department of Health and Human Services (HHS) under award 6 T12HP30311-01-01 Grants to States to Support Oral Health Workforce Activities through August of 2019.

3.3 Facilitate use and expansion of teledentistry and portable delivery systems.

History

Studies show that teledentistry is an effective way to conduct oral health assessments, determine treatment needs, educate patients about treatment options, and make referrals. In some cases, teledentistry allows patients to stay in their local communities for basic dental care, and conserves scarce specialized oral health resources for patients who truly need it. Research has found that patients and providers are satisfied with the quality and outcomes of teledental consultations, with patients appreciating shorter wait times, and providers valuing its efficiency, timeliness and cost effectiveness.⁸⁵

These benefits have led to growing use and acceptance of teledentistry, including recognition of its value by the American Dental Association.⁸⁶ Since 2016, Minnesota has created a supportive policy environment, addressing regulatory and reimbursement barriers and establishing workforce policy that makes it possible to deploy collaborative dental hygienists and dental therapists across distance and a variety of settings.⁸⁷ On-the-ground experience with teledentistry in the state has also grown. In 2018, the American Dental Association (for the first time) included teledentistry codes in its *Code on Dental Procedures and Nomenclature* (also known as the CDT Code), which dental providers use for insurance claim submissions and dental records.⁸⁸

Mobile oral health services range from portable equipment brought into community settings to mobile vans equipped with dental suites and the ability also to offer health care and other services. A

⁸⁵ Langelier M, Rodat C, and Moore J. "Case Studies of 6 Teledentistry Programs: Strategies to Increase Access to General and Specialty Dental Services." Rensselaer, NY: Oral Health Workforce Research Center, Center for Health Workforce Studies, School of Public Health, SUNY Albany; December 2016. Available from: http://www.chwsny.org/wp-content/uploads/2017/01/OHWRC_Case_Studies_of_6_Teledentistry_Programs_2016.pdf.

MN Department of Human Services. "Recommendations for improving oral health services delivery system." St. Paul, MN: Minnesota Department of Human Services Legislative report. 2014. Available from: <https://www.leg.state.mn.us/docs/2014/mandated/140261.pdf>.

⁸⁶ The American Dental Association (ADA) defines teledentistry as the use of telehealth systems and methodologies for both patient care and education, including through live video, store-and-forward systems, remote patient monitoring and mobile health. ADA News. "House passes guidelines on teledentistry." December 7 2015. Available at: <http://www.ada.org/en/publications/ada-news/2015-archive/december/house-passes-guidelines-on-teledentistry>.

⁸⁷ Minnesota Health Care Plans reimburse teledentistry both for live video and store-and-forward formats. Minnesota Statute 62A.672 Coverage of Telemedicine Services requires parity between teledentistry and in-person services – a health plan must pay for a covered service if it is provided through telehealth and not in-person – and reimbursement for teledentistry services at the same rate as in-person services.

⁸⁸ American Dental Association. "D9995 and D9996 – ADA Guide to Understanding and Documenting Teledentistry Events." Version 1, July 17 2017. Available from: http://www.ada.org/en/~media/ADA/Publications/Files/D9995andD9996_ADAGuidetoUnderstandingandDocumentingTeledentistryEvents_v1_2017Jul17.

number of nonprofit organizations in Minnesota provide mobile delivery of oral health services in rural communities. Most began using these systems as a way to fill gaps in oral health access. Many rely on collaborative practice agreements where a hygienist or dental therapist is a key service provider.

Mobile dentistry shares some of the challenges and potential of teledentistry. It allows providers to bring preventive and basic restorative services into a wide variety of community and institutional settings, overcoming barriers to care for patients in long-term care facilities and schools, and those with limited transportation options or special needs. By helping treat oral health issues early, before they progress into more serious dental issues or emergencies, mobile units effectively increase capacity in fixed dental clinics and private practices for patients with more complex needs. Most mobile oral health providers work to ensure referrals to and follow-up care with local providers where possible, although this can be a challenge in areas with limited capacity and access.⁸⁹

Although mobile operations can be less capital-intensive than traditional dental clinics, the cost of outfitting and maintaining mobile units exceeds revenue generated from services to the underserved, who are typically uninsured or covered by public insurance programs.

Recommendations

Recommendation 3.3 details	Key stakeholders
<ul style="list-style-type: none"> ● To allow a greater geographical reach, connect community-based and clinical settings, and help dentists to work more frequently with dental therapists, advanced dental therapists and collaborative practice dental hygienists. ● Include teledentistry as part of regional pilot(s) recommended above. ● Disseminate DHS guidelines for attestation and billing of teledental services. ● Provide funding for purchase of needed equipment in rural settings. 	<ul style="list-style-type: none"> ● Public and private funders ● Minnesota Department of Human Services ● Minnesota Administrative Uniformity Committee

⁸⁹ Langelier M, Moore J, Carter R, Boyd L, Rodat C. “An Assessment of Mobile and Portable Oral Dentistry Programs to Improve Population Oral Health.” Rensselaer, NY: Oral Health Workforce Research Center, Center for Health Workforce Studies, School of Public Health, SUNY Albany; August 2017. Available from: http://www.oralhealthworkforce.org/wp-content/uploads/2017/11/OHWRC_Mobile_and_Portable_Dentistry_Programs_2017.pdf.

3.3a Rationale

Minnesota is well-positioned to expand teledental and mobile services. RHAC concluded that current efforts should be supported and expanded in rural Minnesota, particularly through the use of **geographically or regionally distributed, telehealth-connected teams**. Use of this team approach can broaden outreach when collaborative practice dental hygienists and/or dental therapists work in community settings with dentists in office or hub locations providing supervision, expertise and follow-up care, where possible.

These arrangements hold promise for increased access as well as a business model that could work in rural private practice. While some of the services provided in the field by allied dental professionals – including basic diagnostics, prevention and early intervention services – are often considered “loss leaders” when provided outside of traditional dental offices, their services are needed and their costs are much lower than dentist costs. At least one teledental expert argues that such an approach can even be profitable for dentists.⁹⁰ Such arrangements might also encourage more dentists to accept public program recipients, as lower operating costs might make public reimbursement more workable.

To bring the full potential of teledentistry to rural Minnesota, RHAC’s recommendations build on the existing foundation, calling for more:

- Funding opportunities for needed equipment in rural settings, dissemination of guidelines, and the inclusion of teledentistry in the regional pilots discussed above.

RHAC concluded that **mobile dentistry has great potential for helping meet rural Minnesota’s oral health needs**.

Specifically, RHAC recommends that state policymakers:

Safety Net Clinics Using Teledentistry

Apple Tree Dental provides services to a wide range of low-income, high-need individuals – implemented a store-and-forward teledentistry program to expand services. Their program is specific to children aged 3-5, enrolled in rural Head Start programs. Local dental hygienists with collaborative practice certification and agreement with a dentist examine a child, clean their teeth, apply fluoride varnish, oral health education and send digital images to a dentist for further evaluation. The hygienists return for recall to provide appropriate preventive follow-up care based on the dentist’s recommendations.

Children’s Dental Services provides dental services to children and pregnant women in Minnesota and– uses teledentistry to reach rural children. Their teledentistry allows them to view and send images electronically between dentists in remote locations. This has helped expand access to restorative dental care in Northeastern Minnesota. CDS is using teledentistry to improve oral health outcomes.

⁹⁰ Rabinowitz E., quoting Dr. Paul Glassman. “Teledentistry making waves across the country.” Dentist’s Money Digest, July 18 2016. Available from: <http://www.dmdtoday.com/news/teledentistry-making-waves-across-the-country>.

- **Provide funding** for needed equipment and maintenance to support such mobile operations.
- **Facilitate** greater use of those professionals, as described in Recommendation 2.2 above.
- **Include mobile dentistry** in the pilot projects proposed in Recommendations 3.1 and 3.2.

Mobile Services in MN

[Open Door Health Center](#) provides mobile dental care in Austin, Garden City and Worthington, MN to individuals with a variety of public and private insurance types including school-based sealant programs in [local schools](#). The mobile dental clinic provides cleanings, exams, fluoride treatments, and restorative services.

[Apple Tree Dental](#) operates a mobile clinic that provides site-specific dental care. Their team of dental care providers travels to nursing homes, group homes, Head start programs and other locations. Their mobile clinic is delivered the day before schedule services, unpacked and set up inside the community location. This way, dental teams can provide exams to individuals in a familiar place.

[UCare Mobile Dental Clinic](#) works with the University of Minnesota - School of Dentistry to provide dental care to public program patients. The mobile clinic uses a dental team comprised of dental, dental therapy and dental hygiene students. To increase efficiency and see the largest number of patients possible, the mobile clinic utilizes dental assistants. The mobile clinic sees 1,095 patients per year across 16 mobile sites in Minnesota, in addition to [community-based dental clinics](#).

[Just Kids Dental, Inc.](#) is a pediatric dental practice co-located in the Essentia Health Pediatric Services building in Duluth. They have a team of dental hygienists who provide children with an oral health assessment, fluoride varnish and referrals at the clinic. Their hygienists also travel to local schools - to include dental sealants – as well as community-based presentations on oral health and hygiene.

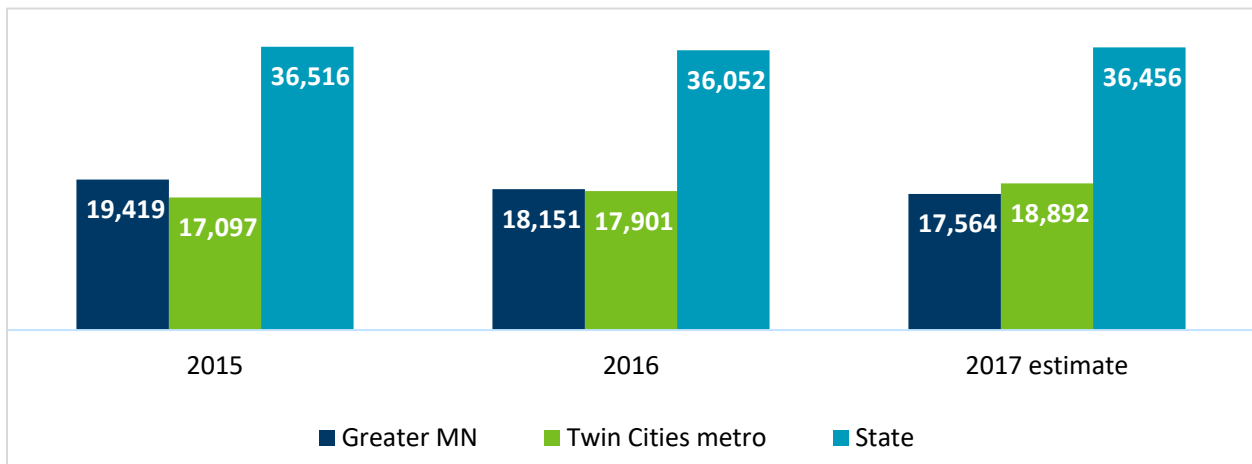
[Operation Grace Minnesota](#) runs free clinics providing preventive and restorative care to underserved communities across Minnesota. They operate a mobile dental RV and three portable units. Operation Grace is a non-profit and volunteer driven organization, including all dental providers.

3.4 Encourage Critical Access Hospitals to open oral health units.

History

It is well-documented that individuals without access to regular dental care utilize Emergency Departments for oral health emergencies. The American Dental Association found that the majority of individuals who seek dental care in the ER – where the cost of services is significantly higher than in a dental clinic, are suffering from preventable oral health disease.⁹¹ Rural Minnesotans visit emergency rooms for oral health conditions at disproportionate rates.

Figure 7. Emergency Room Dental Visits in Minnesota 2015-2017⁹²



Source: Minnesota Hospital Association, 2017.

Treating oral health disease in the emergency room is more expensive than treatment through an oral health provider, and can also be a financial strain for the rural hospitals that must provide it. In addition, emergency room treatment for oral health issues rarely addresses the underlying oral health problem, resulting in multiple visits for the same health concern.⁹³

⁹¹ American Dental Association. "From the Emergency room to the dental chair." Available from: <https://www.ada.org/en/public-programs/action-for-dental-health/er-referral>
Star Tribune, "Emergency-room use helps explain wide swings in Minnesota medical spending". November, 2017. Available from: <http://www.startribune.com/er-usage-helps-explain-wide-swings-in-minnesota-medical-spending/460889283/>

⁹² This data accounts for 26 hospitals in the Twin Cities metro and 104 hospitals in Greater Minnesota. Data from 2017 is an estimate based on data from the first half of the year multiplied by two.

⁹³ American Dental Association. "From the Emergency room to the dental chair." Available from: <https://www.ada.org/en/public-programs/action-for-dental-health/er-referral>

Recommendations

Recommendation 3.4 details	Key stakeholders
<ul style="list-style-type: none"> ● Provide incentives, possibly via higher reimbursement levels made possible through emergency room savings, for CAHs that operate or house such services. ● Partner with the Minnesota Hospital Association, the Minnesota Dental Association and others to bring CAHs and dental experts together to learn from hospitals that operate dental clinics and examine how such partnerships might expand in rural Minnesota. Build on the relationship between oral health and overall health, including the potential to drive down costs for chronic diseases and ED use. 	<ul style="list-style-type: none"> ● Critical Access Hospital and other rural health administrators ● Oral health practitioners ● Minnesota Hospital Association ● Minnesota Dental Association ● Minnesota Dental Hygienists' Association ● Other oral health provider groups

Rationale

Partnerships between hospitals and oral health providers are an innovative way to address the rates of emergency room care and implement new models of delivery and collaborative practice. Minnesota's 78 critical access hospitals (CAHs) act as essential resources and safety-net providers in the rural communities they serve, ensuring access to hospital services and serving as a central hub for a wide range of additional services, including primary and specialty care (Figure 8).

A number of critical access hospitals in Minnesota have integrated oral health into the services they offer or partnered with oral health providers to offer dental care to their local communities.

- **CHI St. Joseph's Hospital** in Park Rapids operates a community dental clinic that provides preventive and diagnostic dental care for people with state insurance plans. The staff at Community Dental Clinic also provide outreach and education to local schools.
- **Bigfork Valley Hospital** and **Cook Hospital**. The dentists from Scenic Rivers Health Services – a local federally qualified health center – provide dental services to the local communities.
- **Madelia Community Hospital and Clinic** rents space to Apple Tree Dental. Apple Tree Dental is located next to the hospital and provides affordable care to the surrounding population including local schools.

Figure 8. Critical Access Hospitals in Minnesota



Critical Access Hospitals are federally designated facilities that receive cost-based Medicare reimbursement. A CAH must be a licensed non-profit facility, participate in Medicare, and be located in a rural area at least 35 miles from another hospital.

Non-profit hospitals are required to conduct a community health needs assessment every three years. This assessment helps identify top community health needs that can be addressed by the hospital in concert with the community. Some hospitals in other states have addressed oral health services through their community benefit programs to create innovative solutions to improving oral health.

- Funding dental equipment in community health centers;
- Funding mobile dental clinics that travel to a range of community sites;
- Helping to provide transportation to children to dental care;
- Providing vouchers that cover full or partial costs of dental care;

- Funding oral health coalitions.⁹⁴

RHAC concluded that hospitals, oral health providers and their respective associations could better align to fill gaps in oral health care in Minnesota. RHAC recommends:

- **Finding ways to encourage rural and critical access hospitals** to address oral health by building partnerships with a variety of oral health and hospital stakeholders and providing hospitals with better access to in-house services and higher reimbursement.
- **Collaborations between professional associations** to enhance relationships between hospitals and oral health providers to create beneficial partnerships – including the potential to improve overall health, control costs of unmanaged oral disease and reduce emergency department usage.

⁹⁴ Families USA. “Using Hospital Community Benefits to Improve Access to Oral Health Care.” December 2017. Available from:

http://familiesusa.org/sites/default/files/product_documents/OH_CommunityBenefits_Brief_final%20%281%29.pdf

3.5 Add an oral health member to the Rural Health Advisory Committee.

Recommendation 3.5 details	Key stakeholders
<ul style="list-style-type: none">● Change Minnesota Statute 144.1481 to add a new membership category of “oral health professional.”● To allow permanent voice for oral health on the committee (vs. under more general category of “Licensed health care professional from an occupation not otherwise represented,” as is current statute language.	<ul style="list-style-type: none">● Minnesota Legislators● Minnesota Department of Health● Rural Health Advisory Committee

History and Rationale

The Rural Health Advisory Committee’s charge – identified in Minnesota Statute 144.1481 – is to advise the Commissioner of Health and other state agencies on rural health issues. The statute also identifies the role of each member appointed by the Governor. Currently, there are 15 members from a variety of health professions, plus four legislators. While there is no specific appointment for an oral health professional, this field typically fills a category of “other licensed health care professional” identified in statute. The Rural Health Advisory Committee convened this workgroup to address the barriers to accessing oral health systems and services in rural Minnesota, and concludes their recommendations with the suggestion that the statute be amended to provide a permanent voice for oral health on the committee. This action would help maintain focus on improving access to oral health services in rural Minnesota.

Note: During the 2018 legislative session, H.F.4127 was introduced with language to add a membership role who is a licensed dentist to the Rural Health Advisory Committee, MN Statute 144.1481.

Conclusion

Access to oral health services in rural Minnesota is a critical problem that greatly impacts overall health, and creates ongoing challenges for many individuals and communities. Improving rural access to oral health care is a complicated undertaking. Promising strategies include promoting new ways of reforming payment, identifying innovative ways of using oral health professions and developing new models of care.

This report highlights issues that have the daily focus of many stakeholder groups across the state, demonstrating the urgent need to create sustainable solutions to improve access to oral health services for rural communities. The recommendations included in the report are targeted to a wide range of policy makers, professional associations and state agencies. While some of the recommendations build on progress that has already been made, there is much more to do. This report sheds light on the importance of oral hygiene and oral health on long-term health outcomes and on the health and access disparities faced by people living in rural communities.

RHAC is committed to promoting the findings in this report and encouraging action on its recommendations, which will be distributed to the Commissioner of Health, the chairs of relevant legislative committees and through the Office of Rural Health and Primary Care's multiple communication channels.

Appendix

1. Rural Health Advisory Committee Membership

John Baerg

Consumer Member

Ann Bussey

Consumer Member

Ray G. Christensen

Higher Education Member

Thomas Crowley

Hospital Representative Member

Ellen De la torre – Chair

Consumer member

Daron Gersch

Physician Member

Andrew Johnson

Mid-Level Practitioner Member

Clark Johnson

House Minority Member

Margaret Kalina

Registered Nurse Member

Mary Kiffmeyer

Senate Majority Member

Tony Lourey

Senate Minority Member

Joe Schomacker

House Majority Member

Nancy Stratman

Long-Term Health Care Member

Tom Vanderwal

Volunteer Ambulance Services Member

Michael Zakula

Licensed Health Care Professional Member

2. Oral Health Workgroup Membership

Michael Zakula, DDS

Workgroup Chair

Rural Health Advisory Committee

Bridgett Anderson, LDA, MBA

Executive Director

MN Board of Dentistry

Leon Assael, DMD, CMM/Todd E. Thierer, DDS, MPH

Dean/Acting Dean, School of Dentistry

University of Minnesota

Colleen Brickle, EdD, RDH, RF

Dean, Health Sciences Division

Normandale Community College

Ann Bussey, MA

Member

Rural Health Advisory Committee

Peter Cannon, DDS/Kevin Dens, DDS

President/President-Elect

MN Dental Association

Carmelo Cinqueonce, MBA

Executive Director

MN Dental Association

Jeanne Edevold Larson, MS

Executive Director

Northern Dental Access Center

John Gulon, DDS

President/CEO

Park Dental

Cathy Jo Gunvalson, RDH

Member

MN Dental Hygienists Association

Jodi Hager, RDH, ADT

President

MN Dental Therapy Association

Deborah Jacobi, RDH, MA

Policy Director

Apple Tree Dental

John Lueth, DDS

Board member

Northern Dental Access Center

Michael B. Miskovich, DDS

Dentist

Virginia Family Dental

Kelli Olson, LDA

President

MN Dental Assistants Association

Nathan Pedersen, DDS

Dentist

Dental Health Service of Northern MN

Gary Plotz, DDS

Dentist

Shetek Dental Care

Allen Rasmussen, MA

Board member

MN Board of Dentistry

James Zenk, DDS

Dentist

Family Dentistry of Montevideo

Darcy Dungan-Seaver

Rural health policy analyst/planner, Minnesota Department of Health

Laura McLain

Health workforce analyst, Minnesota Department of Health

Mark Schoenbaum

Former Director, Office of Rural Health & Primary Care, Minnesota Department of Health

Merry Jo Thoele

Former Director, Oral Health Program, Minnesota Department of Health
