

NEBRASKA

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DEPT. OF HEALTH AND HUMAN SERVICES



Jim Pillen, Governor

September 15, 2023

Mr. Brandon Metzler
Clerk of the Legislature
State Capitol Room 2028
Lincoln, NE 68509

Subject: Dental Hygiene Services Evaluation Report

Dear Mr. Metzler:

In accordance with Neb. Rev. Stat. § 38-1130(4), the Department of Health and Human Services is submitting a report and evaluation of the delivery of dental hygiene services in the state provided by registered dental hygienists with Public Health Authorization. The attached report highlights the function, activities, and locations served by this workforce.

Sincerely,

A handwritten signature in blue ink that reads "Charity Menefee".

Charity Menefee
Director, Division of Public Health

Attachment

Division of Public Health

2022 Nebraska Public Health Authorization Dental Services and Evaluation Report

September 2023

Neb. Rev. Stat. § 38-1130

2022 Nebraska Public Health Authorization Dental Services Report

Evaluation Analysis

Background

Nebraska-licensed dental hygienists have been able to obtain public health authorization since 2007 and the number of dental hygienists has steadily grown since then. Public health authorization (PHA) allows registered dental hygienists to provide certain preventive, educational, and referral services for children and adults in community settings. The type and number of these services are annually collected through a survey conducted by the Health Professional Tracking Service (HPTS) at the University of Nebraska Medical Center, College of Public Health. Dental service and demographic information are entered into a yearly Nebraska Public Health Authorization Dental Services Report which is reviewed by the Department of Health and Human Services (DHHS) Office of Oral Health and Dentistry (OOHD). The following is an evaluation of the public health registered dental hygienist (PHRDH) workforce and the services they reported in Nebraska for the year 2022.

PHA dental services are performed throughout the state and provided across the lifespan in a variety of public health settings as defined in Neb. Rev. Stat. § 38-1130 including childcare centers, school-age children, and older adult locations. Preventive care, such as dental screenings, teeth cleanings, topical fluoride applications, and protective sealants, are some of the most effective, low-cost, evidence-based approaches to reducing dental decay rates. In 2016, the OOHD started the “Nebraska Teeth Forever” program to establish dental disease prevention programs within local health departments (LHDs). This program greatly increases access to care, especially in rural areas, and has now expanded to about 12 LHDs. Many of the PHRDHs who reported providing services in 2022 work directly for these health departments and others for federally qualified health centers (FQHCs). From 2017 to 2019, this unique workforce produced an average of nearly 100,000 services annually. At times during the pandemic, these services were greatly reduced due to COVID-19 restrictions. The emergency health crisis resulted in a 53% decrease in reported services in 2020 with a partial rebound in 2021. Fortunately, in 2022, the total service numbers have fully recovered and now exceed the pre-pandemic levels by 35%. Almost all service numbers are now trending positive.

Increased delivery of these preventive and educational services is starting to have a significant impact on improving oral health outcomes of young children in Nebraska. The 2021-22 Oral Health Survey found that 58% of third-grade children statewide have dental decay experience which is down from 64% in 2015-16 and below the national average of 60%. Untreated decay rates also went down from 32% to 24%, and 51% of these students have dental sealants which is above the national average of 42%. These positive shifts were more profound in the rural areas of the state where decay experience rates have dropped from 81% to 66% and untreated decay rates from 53% to 25%, almost equal to the urban rate of 24% and close to the U.S. average of 20%. Much of this accomplishment can be directly attributed to the efforts of the PHRDHs traveling throughout the state to provide this important care. Nebraska community dental programs should continue to expand and more PHRDHs mobilized to further this decline in disease rates.

2022 Service Status

PHRDH dental services reported in 2022 were compared to service numbers previously reported in 2021 and the significant positive or negative trends are described in the bullet points below with substantial percent differences in parenthesis:

Positive Trends:

- The total number of NE PHRDHs increased in 2022 from 161 to 176.
- The total number of PHRDHs providing services increased in 2022 from 31 to 39 (26%).
- The percentage of PHRDHs providing services increased in 2022 from 19% to 22%.
- The total service locations increased in 2022 from 46 to 81 sites (76%).
- Total service locations for older adults increased in 2022 from two to eight sites.
- The percent of NE counties served by PHRDHs increased in 2022 from 77% to 85%.
- The total number of PHRDH services increased in 2022 from 86,538 to 116,415 (35%).
- The total dental screenings increased in 2022 from 23,764 to 35,559 (50%).
- The total patient oral hygiene education increased in 2022 from 18,854 to 29,020 (54%).
- The total dental cleanings increased in 2022 from 3,395 to 4,757 (40%).
- The total topical fluoride applications increased in 2022 from 17,004 to 19,387 (14%).
- The total dental sealants increased in 2022 from 12,041 to 17,658 (47%).
- Other services previously authorized (Interim Therapeutic Restorations, Prescriptions for Mouth Rinse Products and Denture Adjustments) increased in 2022 from 19 to 476.
- New services were authorized in 2021 (Polishing of Teeth and Restorations, Brush Biopsies, Gingival Curettage, Removal of Sutures, Study Cast Impressions, and Radiographic Exposures). These services increased from 6,112 to 7,006.

Neutral Trends:

- No Pulp Vitality Tests were performed by PHRDHs in 2021 or 2022.

Negative Trends:

- The survey response rate decreased in 2022 from 62% to 58%.
- Total of Oral Health Education given to caregivers decreased in 2022 from 2,898 to 1,293 (65%).
- The total of Other Topical Agents (SDF) decreased in 2022 from 2,451 to 939 (62%).

Discussion

In 2022, the number of authorized PHRDHs went up in 2022 from 161 to 176 and the number of PHRDHs actively providing services also increased from 31 to 40. The number of service site locations increased from 46 to 81 and they were performed in 79 counties (up from 72) representing coverage of 85% of Nebraska (up from 77%). The total number of services went up from 86,538 in 2021 to 116,415 in 2022, an increase of 35%. These outstanding results surpass pre-pandemic levels and demonstrate that this valuable oral health workforce has fully recovered from the COVID-19 restrictions. Especially effective are the topical fluoride services that reduce dental decay by 25-40%, and dental sealants that reduce dental decay by 60-80%.

The 2016 Nebraska State Oral Health Assessment Report identified rural residents as the number one underserved population group in Nebraska. Rural regions traditionally demonstrate higher rates of dental

disease and less access to dental providers and essential disease prevention services than urban areas. Starting in 2016, the “Nebraska Teeth Forever” program increased the delivery of these valuable public health services. PHRDHs are the critical element of that program because they can provide low-cost direct services in community settings without the supervision of a dentist. The effect of this large increase in access to care has been demonstrated in the Nebraska Oral Health Survey of Young Children 2021-2022 Report. Those results indicate state rates of children’s dental disease are going down and the urban/rural disparity has been greatly reduced. The overall reduction in children’s dental disease since the last survey in 2016 was accomplished despite the challenges of the pandemic that increased dental disease rates across the U.S. The momentum this remarkable turnaround has generated must now be expanded to more regions of the state. The proven success of the existing PHRDH workforce indicates their increased mobilization should become a Nebraska priority.

Recommendations

1. Increase the number of PHRDHs actively utilizing their PHA authorization.
2. Implement an electronic reporting system (ex: RedCap) to capture field service data more effectively.
3. Increase the number of Silver Diamine Fluoride services that can arrest decay.
4. Increase the number of sites and services for older adult populations.
5. Increase the number of Oral Health Educational Sessions given to caregiver groups.
6. Increase the Public Health Authorization service annual survey response rate.

Conclusion

The two principal public health interventions that can reduce dental disease rates for children in Nebraska are education and prevention. The 2022 Nebraska Public Health Authorization Dental Services Report, combined with the Nebraska Oral Health Survey of Young Children 2021-2022 Report, emphasize the major impact that Nebraska Public Health Hygienists have had. This very small workforce was able to overcome many challenges while increasing access to a large number of effective services. That care has now clearly demonstrated a reduction in disease and an increase in positive child dental health outcomes. And yet, PHRDHs are still vastly under-utilized. Nebraska is one of the few states that authorize this unique type of oral health workforce, and the evidence presented in this report demonstrates the efficacy of this capability. Increased employment opportunities would stimulate further usage of these energetic service providers which would likely result in more positive outcomes for Nebraska residents. The Surgeon General has emphasized the need for Americans to have good oral health to obtain sound overall general health. PHRDHs are making a major contribution to helping Nebraskans achieve that goal.

Appendix A: 2022 PHA Dental Services Report

One hundred and seventy-six (176) registered dental hygienists (RDH) were mailed questionnaires regarding usage of the Public Health Authorization (PHA) during 2022. The 176 included RDHs who held a PHA during 2022. One permit lapsed during 2022.

Of the 176 RDHs sent questionnaires, 108 responses were received, reflecting a 61% response.

Forty (40) RDHs reported providing services in 2022, indicating that 23% of RDHs who held a PHA during 2022 utilized the permit. Services were provided in 79 of the 93 counties in Nebraska.

Services were provided in the following locations (number of RDHs reporting this location type):

- Nursing Facility (5)
- School-Based Preventative Health Program (29)
- Federal, State, or Local Public Health Department or Clinic (14)
- Community Health Center (4)
- Assisted Living (4)
- Other –
 - Head Start (17)
 - WIC (3)
 - Preschool (3)
 - Other (2)

No services were reported in the following allowable settings: Tribal Clinic, Correctional Facility, and Hospital.

Provided services are broken down by age range as seen in the tables below.

2022 Preliminary Charting and Screening Breakdown by Age				
Total: 35559				
Age Range	0 to 5	6 to 18	19 to 64	65+
Total Service Provided	6360	27841	889	469

2022 Oral Health Education to Recipient Breakdown by Age				
Total: 29020				
Age Range	0 to 5	6 to 18	19 to 64	65+
Total Service Provided	6461	20539	1286	734

2022 Oral Health Education to Caregiver Breakdown by Age				
Total: 1593				
Age Range	0 to 5	6 to 18	19 to 64	65+
Total Service Provided	524	831	85	153

Oral Health Education provided in Group Settings: 356 presentations total.
 The total number of workshops provided in 2022 was 276. Age information was not included.
 The total number of in-service trainings provided in 2022 was 80. Age information was not included.

2022 Oral Prophylaxis Breakdown by Age				
Total: 4757				
Age Range	0 to 5	6 to 18	19 to 64	65+
Total Service Provided	714	2404	921	718

2022 Polish Exposed Tooth Surfaces and Restorations Breakdown by Age				
Total: 3388				
Age Range	0 to 5	6 to 18	19 to 64	65+
Total Service Provided	438	1760	602	588

2022 Brush Biopsies Breakdown by Age				
Total: 0				
Age Range	0 to 5	6 to 18	19 to 64	65+
Total Service Provided	0	0	0	0

2022 Pulp Vitality Testing Breakdown by Age				
Total: 0				
Age Range	0 to 5	6 to 18	19 to 64	65+
Total Service Provided	0	0	0	0

2022 Gingival Curettage Breakdown by Age				
Total: 380				
Age Range	0 to 5	6 to 18	19 to 64	65+
Total Service Provided	0	0	200	180

2022 Removal of Sutures Breakdown by Age				
Total: 3				
Age Range	0 to 5	6 to 18	19 to 64	65+
Total Service Provided	0	0	*1-5	0

2022 Topical Fluorides Breakdown by Age				
Total: 19387				
Age Range	0 to 5	6 to 18	19 to 64	65+
Total Service Provided	5506	12618	738	525

2022 Dental Sealants Breakdown by Age				
Total: 17658				
Age Range	0 to 5	6 to 18	19 to 64	65+
Total Service Provided	5234	12375	41	8

2022 Other Topical Agents Breakdown by Age				
Total: 959				
Age Range	0 to 5	6 to 18	19 to 64	65+
Total Service Provided	677	222	50	10

2022 Impressions for Study Casts Breakdown by Age				
Total: 13				
Age Range	0 to 5	6 to 18	19 to 64	65+
Total Service Provided	0	0	*1-5	8

2022 Radiographic Exposures Breakdown by Age				
Total: 3222				
Age Range	0 to 5	6 to 18	19 to 64	65+
Total Service Provided	239	1625	954	404

2022 Interim Therapeutic Restoration Breakdown by Age				
Total: 176				
Age Range	0 to 5	6 to 18	19 to 64	65+
Total Service Provided	81	46	40	9

2022 Prescriptions for Mouth Rinses and Fluorite Products Breakdown by Age				
Total: 240				
Age Range	0 to 5	6 to 18	19 to 64	65+
Total Service Provided	12	88	108	32

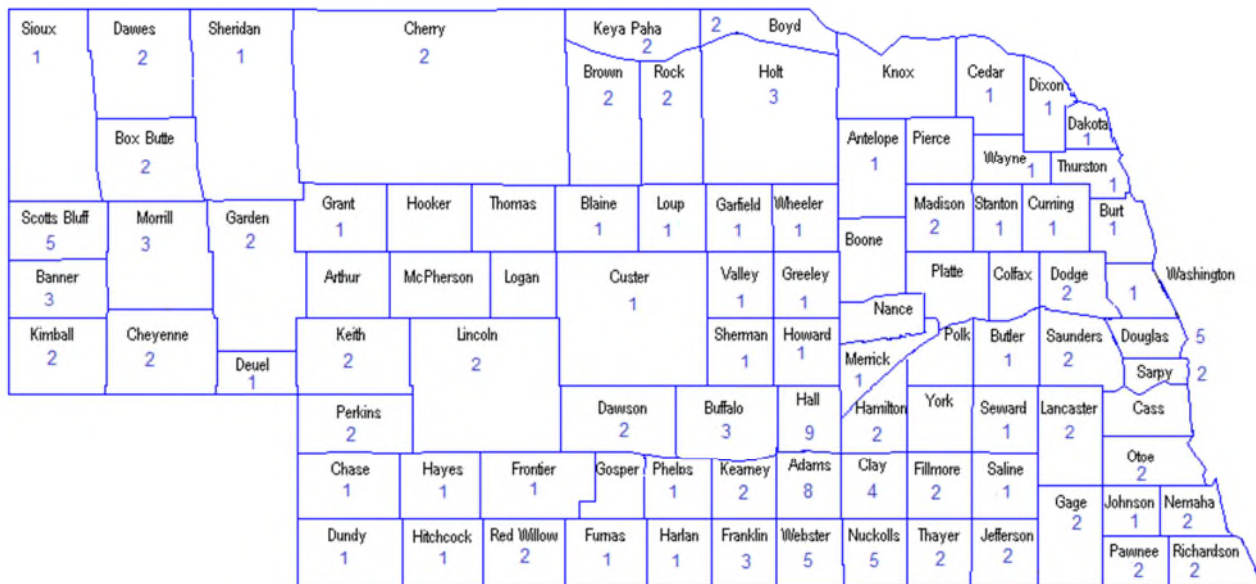
2022 Minor Denture Adjustments Breakdown by Age				
Total: 60				
Age Range	0 to 5	6 to 18	19 to 64	65+
Total Service Provided	0	0	25	35

2022 Advised Patient - Breakdown by Age				
Total: 28978				
Age Range	0 to 5	6 to 18	19 to 64	65+
Total Service Provided	5506	22368	509	595

* Indicates that counts are masked due to a low number (between 1-5)

Appendix B: Number of PHRDHs Who Provided Services Within Nebraska Counties

Public Health Authorization



End of Year 2022

Counties supported – 40 Dental Hygienists holding a Public Health Authorization identified using the permits in 79 Nebraska counties
 This represents 85% of Nebraska counties served by Public Health Hygienists

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 University of Nebraska Medical Center
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