The United States Census Bureau estimates that there are currently 99,328 North Dakota residents ages 65 or older, accounting for 14.4% of the State's population. The number of older adults is rising in North Dakota and nationally. Oral health providers must recognize the unique dental needs of this cohort, and ensure that care is available, accessible, and appropriate.

### Oral Health Concerns for the Elderly

The American Dental Association reports that aging adults may be more susceptible to dry mouth, root and coronal caries (cavities), periodontitis, and increased sensitivity to drugs used in dentistry. In addition, older adults typically present with comorbid conditions, meaning additional health concerns that may have an impact on oral health services needed and/or treatment options available. Patients with severe cognitive impairment are at an increased risk for tooth decay, periodontal disease, and oral infection because of a decreased ability for self-care, and a lack of geriatric oral health literacy among caregivers. These individuals also have a more difficult time communicating dental concerns and receiving dental treatment.

In general, oral health is not treated as part of systemic health; this is especially true among frail, vulnerable elders. A primary challenge in providing both restorative and preventive care for those ages 65 and older is developing an appreciation of the need for regular dental care. The percentage of elderly (65 and older) who have visited a dentist in the past year has steadily declined in the last four reporting periods both nationally and in the State. See Figure 1.

### While the percentage of elderly visiting a dentist in a given year has been on the decline, it has been consistently worse among minorities, especially in North Dakota. See Figure 2.

**Figure 2. Percentage of Elderly who Accessed Dental Care in the Past Year by Race, 2014**

In 2014, only 50% of “other race, non-Hispanic” North Dakota elderly had visited a dentist in the last year. It is likely that the State’s larger American Indian population falls within this racial category. American Indians comprise 5% of the State’s overall population. Just 24% of North Dakota’s Hispanic only population had been to a dentist in the last 12 months; this population represents 3.5% of the overall State population. The racial disparity in utilization of dental care for the elderly is greater in North Dakota than it is nationally.

### Nursing Home Residents in North Dakota

Data suggests a decline in utilization of dental services and an increase in the percentage of those who still have their natural teeth. As of 2014, only 13% of North Dakota elderly (65+) had had all of their natural teeth removed; a decline from 2008 when 19% were missing all of their teeth. It is imperative that long term care staff and oral health providers encourage routine dental care among North Dakota elderly in an effort to ensure retention of natural teeth.

The percentage of elderly with no natural teeth is higher among nursing home residents than the State overall. In 2016, 32% of nursing home residents in North Dakota experienced total tooth loss (edentulism); among the edentulous, 62% were Medicaid enrollees. Roughly 34% of those with teeth needed early or urgent dental care. See Figure 3.
Generally, there was little to no variation among age categories, facility location (rural/urban), or gender. However, Medicaid nursing home residents were more likely than those with Medicare/no insurance, or private/third party insurance to: be edentulous; have substantial tooth loss; experience untreated decay; have prevalence of root fragments; have severe gingivitis; and, need periodontal care. See Figure 4. Medicaid has been combined with “no insurance” because Medicare does not cover routine preventive or restorative dental services.

Conclusions

The percentage of elderly who utilize dental care has been on the decline. The elderly population is growing, they are more likely than previous generations to have natural teeth, and they present with complex health conditions. While there is a clear need to provide both preventive and restorative care to all elderly, there is more significant need for treatment and oral health literacy among minorities and Medicaid enrollees.

There are 6,141 nursing home beds in the State, and nearly half (48%) of nursing home residents were covered by Medicaid; an additional 29% were covered by private/third party dental insurance. While Medicare does not cover general preventive or restorative dental care, residents in North Dakota nursing homes have additional coverage, affording oral health providers the opportunity to provide reimbursable care.

Recommendations

Dental and long term care (LTC) providers should collaborate to identify innovative and reimbursable models for providing preventive and restorative oral healthcare to LTC residents. Previous research in North Dakota has identified the need to improve the oral health literacy among direct care providers in LTC facilities. Read *Oral health care in North Dakota long term care facilities* at ruralhealth.und.edu/pdf/north-dakota-oral-health-long-term-care.pdf for more information.

It is imperative that the elderly recognize the importance of oral health as part of systemic health, and that all providers continue to encourage dental care through all life stages. Innovative models must also address the barriers that the elderly identify to accessing oral healthcare. These barriers include travel, cognition, cost, fear, and poor oral health literacy. Learn more about how mobile dental care has been utilized to overcome some of these barriers by reading *Post-assessment of the long term care oral health program: Aggregate report* or *Dentists providing oral healthcare to long term care residents: Survey chartbook & four North Dakota case studies* both at ruralhealth.und.edu/what-we-do/oral-health/publications.

Data

Data on North Dakota nursing home residents’ oral health status in 2016 were provided by the North Dakota Department of Health’s Older Adult Basic Screening Survey (2016). State and national care utilization rates (2008-2014) were taken from the Behavioral Risk Factor Surveillance System provided by the Centers for Disease Control and Prevention.


For more information

Visit the CRH webpage for additional oral health publications and information. ruralhealth.und.edu/what-we-do/oral-health

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**Figure 3. Oral Health Status of Nursing Home Residents in North Dakota, 2016**

<table>
<thead>
<tr>
<th>Health Status</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Needs periodontal care</td>
<td>30%</td>
</tr>
<tr>
<td>Lower partial denture</td>
<td>41%</td>
</tr>
<tr>
<td>Root fragments</td>
<td>20%</td>
</tr>
<tr>
<td>Untreated decay</td>
<td>23%</td>
</tr>
<tr>
<td>Severe gingival inflammation</td>
<td>23%</td>
</tr>
<tr>
<td>Substantial tooth loss</td>
<td>34%</td>
</tr>
<tr>
<td>Needs early/urgent care</td>
<td>41%</td>
</tr>
<tr>
<td>Upper partial denture</td>
<td>41%</td>
</tr>
</tbody>
</table>

**Figure 4. Oral Health among North Dakota Nursing Home Residents: Insurance Status, 2016**

<table>
<thead>
<tr>
<th>Insurance Status</th>
<th>Needs periodontal care</th>
<th>Severe gingival</th>
<th>Root fragments</th>
<th>Untreated decay</th>
<th>Substantial tooth loss</th>
<th>Edentulous</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private/third party</td>
<td>20%</td>
<td>22%</td>
<td>20%</td>
<td>20%</td>
<td>23%</td>
<td>23%</td>
</tr>
<tr>
<td>Medicare/No insurance</td>
<td>23%</td>
<td>23%</td>
<td>23%</td>
<td>23%</td>
<td>23%</td>
<td>23%</td>
</tr>
<tr>
<td>Medicaid</td>
<td>41%</td>
<td>41%</td>
<td>41%</td>
<td>41%</td>
<td>41%</td>
<td>41%</td>
</tr>
</tbody>
</table>

% of Nursing Home Resident in North Dakota

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**Recommendations**

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**Figure 3. Oral Health Status of Nursing Home Residents in North Dakota, 2016**

- Needs periodontal care: 30%
- Lower partial denture: 41%
- Root fragments: 20%
- Untreated decay: 23%
- Severe gingival inflammation: 23%
- Substantial tooth loss: 34%
- Needs early/urgent care: 41%
- Upper partial denture: 41%

% of Nursing Home Resident in North Dakota

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**Recommendations**

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