Evolving Delivery Models for Providing Dental Care Services in Long-Term Care Settings: Practice and Policy

Four State Case Studies

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HRSA Health Workforce Research Centers

The Health Resources and Service Administration (HRSA) in the U.S. Department of Health and Human Services funds six health workforce research centers around the county.

- University of California at San Francisco: Long-term care
- George Washington University, Washington, DC: Flexible use of workers to improve health care delivery and efficiency
- University of North Carolina at Chapel Hill: Flexible use of workers to improve health care delivery and efficiency
- University of Washington: Allied Health.
- Center for Health Workforce Studies at the University of Albany (SUNY), School of Public Health: Oral Health.
- University of Michigan: Behavioral Health
Oral Health Workforce Research Center (OHWRC)

Cooperative Agreement U81HP27843 based at the Center for Health Workforce Studies at the School of Public Health, University at Albany, State University of New York and partnered with Healthforce Center at UCSF.

Five research were completed projects 2014/2015:

- Dental Hygiene Professional Practice Index by State, 2014
- Evolving Delivery Models for Dental Care Services in Long-Term Care Settings: 4 State Case Studies, 2015
- Utilization of Oral Health Services by Medicaid-Insured Adults in Oklahoma, 2012-2013
- The Dental Assistant Workforce in the United States, 2015
- Case Studies of 8 Federally Qualified Health Centers: Strategies to Integrate Oral Health with Primary Care
UCSF Summer Research Fellowship

- UCSF dental students apply for this fellowship between year 1-2 of dental school.
- Keely Walgama developed a proposal under the mentorship of Dr. Mertz that complemented the HRSA study and was awarded a fellowship funded by Dr. Brian Bast in the Department of Oral and Maxillofacial Surgery.
- Ms. Walgama conducted the state by state policy analysis for this project.
Background

At some point in their lives, long-term care (LTC) facilities will house close to half of the 40 million people in the U.S. who are currently over age 65.

Individuals living in LTC facilities or receiving in-home care (IHC) are more likely to have poorer oral health status compared to individuals living independently.

Numerous barriers to oral health care exist for the poor, elderly, and institutionalized population, including:

- Inadequate or non-existent insurance coverage/dental benefits for the elderly population;
- Limited and highly variable geriatric training for dental providers; and
- Insufficient training and regulation around oral health care for care providers in LTC settings
Study Objectives

1. To advance understanding of current practice models utilized in providing dental services in long-term care facilities, and

2. To identify the policy variables that impact the availability of oral health services in LTC settings and their range of variation across the country.
Methods

This research was conducted in a mixed methods framework, including:

▪ A literature review;

▪ Interviews with state and national policy expert;

▪ Analysis of variation in Medicaid dental coverage and allied dental provider scope of practice laws by state; and

▪ Qualitative interviews with both dental and LTC providers in four states with variable policy environments for allied provider scope, Medicaid expansion under the ACA, and adult dental coverage in Medicaid.
  • California,
  • Florida,
  • Minnesota, and
  • North Carolina.
Findings

Study results are stratified between those that are common across the county’s long-term care settings and those that are specific to the states profiled in the case studies.

Results that are applicable across states are themes that emerged across the interviews and throughout the literature.

Results that applicable to individual states tend to be the outcome of explicit state policies or state-specific resources.
Findings applicable at the national level:

- Continuum of care models
- Trend toward mobile care
- Financing of dental care
- Dental care in LTCs is different
- What standard of care?
- Regulations are lacking
- Geriatric dentistry specialization “gene”
Continuum of care models

Care models range from a traditional transport-model; where accountability is primarily the responsibility of the nursing home staff and family, to fully mobile and tele-health enhanced models and large comprehensive care organizations (CCOs) that take on accountability for all aspects of oral health care provision.
Trend toward mobile dental care

Nationally, nursing homes are consolidating into large, multi-site operations with multiple levels of care for aging residents.

Dental providers meeting these companies’ needs for oral health care services are increasingly larger and more mobile than a traditional dentist whose practice is fixed to a single site or community.
Financing of dental care

Almost all dental providers cross-subsidize their LTC practice in order to remain solvent.

Dental benefits are largely structured for provision of general dentistry to the able-bodied population.

Medicaid covers 67% of SNF residents, but many states offer no adult dental benefits under Medicaid, and use of IME is variable.

Medicaid reimbursement for adult dental benefits, when offered, is often too low to cover costs for dental providers in LTCs.
Dental care is different and more difficult in LTCs

- Frail and cognitively impaired patients require more resources:
  - **Additional supplies and medications** are needed to help both providers and patients perform basic oral care tasks.
  - **Additional staff** are needed to keep the patient safe and supported.
  - **Specialized equipment** is needed ranging from lift and movement assisting equipment to protection to decrease aspiration risk to patients.

- More time and breaks are needed for providers to work ergonomically with patients who are wheelchair bound, bed-ridden, or unable to lean back.

- Dental “clinics” in LTCs are often set up in salons, chapels, or other makeshift spaces that add to the complexity of care provision.

- Scheduling on-site care requires significant coordination.
What standard of care?

Geriatric dentistry is not a specialty recognized by the ADA, so the Commission on Dental Accreditation has neither developed educational requirements nor established an accreditation program for advanced educational programs in geriatric dental medicine.

As a result, access to training in geriatric dental medicine very limited and what is available is varies greatly across programs and often is subsumed under training for “vulnerable populations” or “special needs” populations.

No standard of care exists for geriatric dental care, hence agreed upon evidence-based guidance does not underlie federal or state regulations around oral health care provision in LTCs.
Regulations around oral health care in LTCs are lacking

A large determinant of oral health care in LTCs is the state policy environment, specifically Medicaid benefits and dental hygienists’ scope of practice.

- Regulations at the federal level focus primarily on ensuring access to care, but don’t address quality, care completion, or appropriateness of care.
  - No or minimal mouth care is normalized for patients who are termed “not cooperative,” a status common for patients with dementia or certain mental incapacities.

- Patients without means to pay for services often go without, most especially in states without adult dental Medicaid benefits.

- Access to dental hygiene care independent of dentists’ direct supervision allows for regular lower-cost prevention and hygiene care.
Geriatric Specialization – or “The Gene”

Interviewees’ report that formal training has less to do with the current workforce serving LTC than individual’s motivations and desires to serve

- Despite training models that have been shown to be effective (CA, NC) LTC staff are not often able to provide safe and effective daily mouth care for residents, even in states that require any training.

- Dental fellowships in geriatric dentistry have been de-funded although a handful of programs exist (for example at University of Minnesota)

- Providers report that internal motivation is the primary driver of practice choice, and that geriatric training is needed but probably won’t change the overall supply of providers willing to serve this population under current policy conditions.
Findings applicable to individual states:

• State-level policy comparisons
• Four state comparisons -
  • California
  • Florida
  • Minnesota
  • North Carolina
Common Procedures in LTC

- D0120 - Periodic oral evaluation, established pt
- D0150 - Comprehensive oral evaluation, new or established patient
- D0210 - Intraoral series of radiographic images
- D0220/D0230 – Intraoral periapical radiographic image, first/each additional
- D0110 - Preventative prophylaxis adult
- D1206/D1208 – Application of fluoride varnish
- D2330/D2331 – Resin restoration – one/two surface anterior
- D2391/D2392 – Resin restoration – one/two surface posterior
- D4341/D4342 – Periodontal Scaling and Root planning, 1-3 teeth/>4 teeth
- D4910 – Periodontal maintenance
- D5110/D5120 - Complete denture maxillary/mandibular
- D5410/5411/5421/5422 - Denture Adjustment, complete/partial, maxilla/mandible
- D5650 - Add tooth to existing denture
- D7140 - Extraction
- D7210 - Sectioning of tooth and including elevation of muco-periosteal flap if indicated
Common payment sources

**Medicaid**
- Covered 63% of nursing home residents in 2011.
- Adult dental coverage is optional and varies across states.
- Benefits for adults can be emergent only, limited, or comprehensive.
- Reimbursement rates vary by state but usually are half of commercial insurance rates.

**Incurred Medical Expense**
- Medicaid payment to nursing home can be reallocated towards medically necessary services that are not otherwise covered.
- Resident must be eligible for Medicaid and have “applied income.”
- Requires input from dentist and caseworker
- Data unavailable on the usage of this payment mechanism

**Medicare Advantage**
- Medicare dental coverage is limited to services that are an integral part of a covered medical procedure.
- 50% of new Medicare enrollees are choosing advantage plans that may provide limited or full dental coverage.
- Coverage varies base on the plan chosen. No data on plan dental coverage is available.

**Self Pay**
- In 2011, 22% of nursing home residents were private pay.
- It is unknown how many private pay individuals have coverage or use dental care.
- Medicaid becomes the primary payer of nursing facility services once residents have exhausted or have spent down personal assets paying for care.
In 39 states, dental hygienists can:

- Initiate treatment based on his or her assessment of patient needs w/o specific authorization of a dentist;
- Treat the patient w/o the presence of a dentist; and
- Maintain a provider-patient relationship.

In 16 of those 38 states, hygienists can bill Medicaid directly for their services.
Key members of the workforce in providing oral health in LTCs

**Workforce**

**Dentist**
- Geriatric dental training is limited in dental education and advanced training programs are small.
- ADA has no recognized residency or specialty program.
- Special care dentistry is limited.

**Dental Hygienist**
- States increasingly are allowing hygienists to treat patient without the presence of a dentist.
- Some states also give hygienists the capability to bill Medicaid directly.

**Dental Therapist**
- Currently 3 states license dental therapists.
- Not being used in nursing homes but can free up specialists time by doing routine care in clinic/office.

**Health Providers**
- Nurse responsible for daily care oversight.
- Social services coordinates care.
- Oral health assessed at admission and annually, but no accountability for treatment.
Medicaid policy enabling codes

- D9410 – Mobile Dentistry/Facility Fee
- D9920 – Behavioral Management
- Teledentistry/screening (D0190, D0101, D0601)
- Sedation (D9221, D9241, D9248)
Policies that enable configurations of care

**Care Configuration**

**Telehealth**
- Few states have teledentistry legislation (CA does).
- As many as 43 states provide Medicaid coverage for telehealth related procedures, such as screening and assessments by nondentists.

**Mobile Dentistry**
- New technology can enable full scope dental care outside of a traditional office.
- In some states Medicaid reimburses dentists for traveling to facilities to provide care for immobile patients.

**Special Needs**
- Oral healthcare for people with complex health needs takes considerably more time, staff, and expertise.
- Some states allow dentists to bill for the increased time it takes to care for patients with special needs.
Dentist distribution in four study states

<table>
<thead>
<tr>
<th>Location</th>
<th>General Dentist</th>
<th>Endodontist</th>
<th>Oral Surgeon</th>
<th>Orthodontist</th>
<th>Pedodontist</th>
<th>Periodontist</th>
<th>All Other Specialties</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>167,960</td>
<td>5,417</td>
<td>7,336</td>
<td>10,583</td>
<td>7,059</td>
<td>5,759</td>
<td>6,073</td>
<td>210,187</td>
</tr>
<tr>
<td>California</td>
<td>27,434</td>
<td>858</td>
<td>850</td>
<td>1,509</td>
<td>893</td>
<td>831</td>
<td>867</td>
<td>33,242</td>
</tr>
<tr>
<td>Florida</td>
<td>8,988</td>
<td>369</td>
<td>432</td>
<td>565</td>
<td>372</td>
<td>404</td>
<td>405</td>
<td>11,535</td>
</tr>
<tr>
<td>Minnesota</td>
<td>2,857</td>
<td>86</td>
<td>134</td>
<td>161</td>
<td>80</td>
<td>66</td>
<td>82</td>
<td>3,466</td>
</tr>
<tr>
<td>North Carolina</td>
<td>4,208</td>
<td>144</td>
<td>203</td>
<td>289</td>
<td>193</td>
<td>125</td>
<td>150</td>
<td>5,312</td>
</tr>
</tbody>
</table>
### Population distribution in four study states

<table>
<thead>
<tr>
<th>State Population Characteristics</th>
<th>Residents in State</th>
<th>State Residents over age 65</th>
<th>General Practice (GP) Dentists</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>California</td>
<td>38,802,500</td>
<td>4,990,092</td>
<td>12.9</td>
</tr>
<tr>
<td>Florida</td>
<td>19,893,297</td>
<td>3,790,954</td>
<td>19.1</td>
</tr>
<tr>
<td>Minnesota</td>
<td>5,457,173</td>
<td>777,833</td>
<td>14.3</td>
</tr>
<tr>
<td>North Carolina</td>
<td>9,943,964</td>
<td>1,461,149</td>
<td>14.7</td>
</tr>
</tbody>
</table>
## Nursing facility distribution in four study states

<table>
<thead>
<tr>
<th>State</th>
<th>Residents in SNFs/NFs</th>
<th>Percent by Sex</th>
<th>Percent by Age</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>California</td>
<td>106,348</td>
<td>37.6</td>
<td>62.4</td>
</tr>
<tr>
<td>Florida</td>
<td>76,390</td>
<td>34.3</td>
<td>65.7</td>
</tr>
<tr>
<td>Minnesota</td>
<td>28,416</td>
<td>31.8</td>
<td>68.2</td>
</tr>
<tr>
<td>North Carolina</td>
<td>38,438</td>
<td>30.4</td>
<td>69.6</td>
</tr>
</tbody>
</table>
Medicaid adult dental benefits in four study states

**California** – Comprehensive adult dental with copay of $1/visit and pre-approval required for specified services including periodontal, crowns and root canals, pre-denture services, services for nursing facility residents

**Florida** – No coverage of adult dental under Medicaid except for services to alleviate pain or infection or preparatory or related to dentures with copay of 5% of payment/procedure. No pre-approval required for emergency services.

**Minnesota** - Non-pregnant adults limited to exam and cleaning 1/year, frequency of x-rays limited by type. Services require no copay and some specified services require pre-approval.

**North Carolina** - Exam and cleaning 2/year; frequency of x-rays limited by type; root canals limited to anterior teeth; orthodontia, pulp caps, inlays and crowns not covered. Copay of $3/episode of treatment. Pre-approval is required for Specified services including periodontal and orthodontic services and maxillofacial surgery.
California Case Study

Key Characteristics:

- Registered Dental Hygienists in Alternative Practice (RDHAP)
- Virtual Dental Home/Tele-health
- LTC care supported by comprehensive adult dental benefits under Medicaid
California Case Study - RDHAPs

- Registered Dental Hygienists in Alternative Practice (RDHAP) are specifically trained in providing dental care for the LTC population, and have filled a gap in access to preventive care for underserved patients.

- California’s scope of practice laws allow RDHAPs to work independent of dentists (in collaborative practice) in underserved areas or with underserved populations, including LTC facilities.

- Their extensive collaborative practice model increases access to care and appropriateness of the level of care by quickly connecting LTC patients to a dentist when needed and connecting only those patients who need the level of care provided under a dentist’s scope of practice.

- Thanks to the availability of adult dental benefits under Medicaid RDHAPs and dentists have found ways to collaborate to have a viable business model.
California Case Study – Virtual Dental Home

- The Virtual Dental Home model allows the allied workforce to store digital images documenting patient’s oral health and forward them to a dentist for analysis and diagnosis.

- Hygienists can then carry out treatment to the extent of their scope under the direction of a dentist without the patient ever having to physically see a dentist, potentially increasing access to care, reducing cost, and improving efficiency of care.

- Denti-Cal supports adult dental care but has limitations that are challenging for providers, including a consultant dentist evaluation of TARs and a recently proposed policy change regarding radiograph requirements that may curtail the capacity of dental providers to continue providing care for LTC residents.

- Recent telehealth legislation may assist in the model being more widely used.
Florida Case Study

Key Characteristics:

- Innovative use of incurred medical expense (IME)
- Delivery model in LTCs is shaped by Hygienists scope of practice laws
- Emergency only adult dental benefits under Medicaid
- Active coalition on Senior’s Oral Health
Florida Case Study – Incurred medical expense

- Medicaid provides no adult dental benefits in Florida so LTCs and state Medicaid officials have come up with an innovative use of incurred medical expense (IME).
  - IME allows nursing facilities to purchase dental care for their Medicaid residents with sufficient means and share the cost of the IME between Medicaid and the patient.
  - Patients without sufficient means still have no access to care unless they are suffering an emergency.
  - The IME model allows patients to receive prophylactic care provided by Hygienists between once per year and once per month, depending on the level of care they can afford.
Florida Case Study – Hygienist scope of practice

- Hygienists can provide prophylactic care under indirect supervision of a dentist for up to two years for patients who have seen a dentist and been given a prescription for hygiene care.

- In response, dental providers in LTCs typically employ several mobile hygienists and fewer dentists to provide prophylactic care at numerous facilities across a system under IME.

- Comprehensive dental care is very difficult to find for most Medicaid patients and often relies on family members to contribute to the cost of care. Those without family members able to contribute financially

- Oral Health coalition is actively working to bring legislative attention to the issues of seniors in the State
Florida Case Study – No Medicaid adult dental benefits

- Patients who are able to pay receive more care than patients without means, resulting in a practice that varies in service within LTC by dental providers.

- Providers who try to treat all patients, regardless of means, must cross-subsidize from other types of care (podiatry/ ophthalmology /etc.) and treatment options are severely limited by the lack of Medicaid adult dental benefits in Florida.

- It is unclear how widespread this care model extends in Florida, but other states are exploring similar mechanisms for care delivery.
Minnesota Case Study

Key Characteristics:

- Comprehensive Medicaid adult dental benefits and payment policies enabling LTC care
- Collaborative practice model with hygienists and dental therapists
- Model delivery system in Apple Tree Dental and UMN geriatric training program
Minnesota Case Study – Payment policies

- Minnesota has a comprehensive adult dental benefits and some innovative payment policies enabling care in LTCs, including:
  - The “Critical Access Dental Provider Program” functions like the Critical Access Hospital designation and allows Medicaid to pay a higher reimbursement rate to serve designated vulnerable populations;
  - Medicaid allows providers to bill for behavior management;
  - Medicaid allows providers to bill a fee to Medicaid similar to a house call for travel to an LTC facility; and
  - Minnesota reimburses for partial acrylic and cast metal partial dentures in addition to full dentures,

- These policies enable care in LTCs, but Minnesota continues to face many challenges, particularly in rural parts of the state.
Minnesota Case Study – Apple Tree and Dental Therapist

- The Apple Tree organization is a national model for serving seniors in LTC.
- Minnesota was the first state to license Dental Therapists in 2009, when it created the Dental Therapist and the Advanced Dental Therapist.
- Both must work in collaborative practice with a dentist, and both are able to perform some procedures with indirect supervision by a dentist.
- The Advanced Dental Therapist is also a licensed Dental Hygienist, so they are able to perform restorative, preventive, and emergency care, making them possibly useful in the LTC setting.
- The restorative care provided by Dental Therapists is less needed in LTCs since much of the work is prophylactic or palliative.
Minnesota Case Study – Collaborative practice

- Minnesota’s collaborative practice model requires hygienists and dental therapists to work in close communication with dentists.

- Care is provided through a variety of models with mobile prophylactic and basic restorative care being provided onsite, and more complex care and surgery being provided at a dentist’s office.

- The result is highly coordinated care for patients, with appropriate levels of fairly comprehensive care provided to all patient in a timely manner.
North Carolina Case Study

**Key Characteristics:**

- Limited scope of practice for hygiene
- Training for LTC staff in provision of daily oral care
- Comprehensive Medicaid adult dental benefits with limitations
North Carolina Case Study – Hygiene scope of practice

- Dental hygienists are able to practice in LTC facilities on their own every six months to provide hygiene care but only after a full comprehensive exam and full medical evaluation of the patient by a dentist.

- Very few dental providers use this mechanism because:
  - They prefer the teeth to be cleaned prior to the comprehensive exam.
  - The time limit of six months is insufficient; and
  - The fee for prophylaxis is too low to make independent hygiene visits worthwhile.

- As a result, most dental providers work as a team in the LTC to provide care, but LTC residents are unable to get the frequent cleanings necessary to maintain oral health.
North Carolina Case Study – LTC staff training

- Mouth Care Without a Battle© program is a model of staff training for LTC facilities seeking strategies to address daily oral care developed by researchers at the University of North Carolina.
  - The program is an evidence-based approach to daily mouth care for persons with cognitive or physical impairment, who are resistive or agitated.
  - An educational DVD with modules on mouth care basics geared toward CNAs is available, along with advocacy resources, administrative support, and specialized tools for providing quality mouth care.
  - In-person half-day group training; a full-day intensive training; technical assistance on implementing a facility-wide mouth care program; and custom training for facilities or groups of facilities are all also available.
  - In North Carolina all nursing homes and all community colleges in the State received a copy of the educational DVD in 2013.
Conclusions

- Workforce policies that enable serving LTC residents include expanded workforce training in geriatric dentistry as well as hygienist autonomy, billing abilities, and expanded practice.

- Care configuration policies shown to support LTC dentistry include inter-professional practice, mobile and teledentistry.

- Payment policies to improve LTC dental care include a Medicare dental benefit; Medicaid adult dental benefits; and a reimbursement structure that encourages safe, effective, and evidence-based dental care.

- The will of policymakers and public payers must be mobilized to make needed changes if vulnerable and underserved patients are to get oral health services in these settings.
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Through its singular focus on health, UCSF is leading revolutions in health.

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