



# COMPENDIUM

Of Innovations in Oral Health Service Delivery



Center for Health Workforce Studies  
School of Public Health  
University at Albany, State University of New York



## TABLE OF CONTENTS

1	PREFACE
3	INTEGRATION OF PRIMARY CARE & ORAL HEALTH
6	Ammonoosuc Community Health Services, Littleton, NH
8	Blackstone Valley Community Health Care, Pawtucket, RI
10	Lake Superior Community Health Center, Duluth, MN & Superior, WI
12	Penobscot Community Health Care, Bangor, ME
14	Ravenswood Family Health Center, East Palo Alto, CA
16	United Community and Family Services, Norwich, CT
18	Wayne Memorial Community Health, Honesdale, PA
20	TELEDENTISTRY
22	Apple Tree Dental, Minneapolis, MN
24	Capitol Dental Polk County Teledentistry, Independence & Salem, OR
26	Community Dental Health (formerly Senior Mobile Dental), Colorado Springs, CO
28	Finger Lakes Community Health, Penn Yan, NY
30	NYU Langone Health, NYU Langone Dental Medicine (formerly NYU Lutheran Dental Medicine), Brooklyn, NY
32	MOBILE & PORTABLE DENSTISTRY
34	Access Dental Care, Asheboro, NC
36	Eastman Institute for Oral Health, Rochester, NY
38	Future Smiles, Las Vegas, NV
40	Health Promotion Specialists, Lexington SC
42	Jordan Valley Community Health Center, Springfield, MO
44	Northeast Mobile Dental Services, Bedford, NH
46	St. David's Foundation, Austin, TX
48	INTEGRATION OF PRIMARY CARE, ORAL HEALTH & BEHAVIORAL HEALTH
50	Albuquerque Health Care for the Homeless, Albuquerque, NM
52	Colorado Coalition for the Homeless, Denver, CO
54	Compass Health Network, Clinton, MO
56	Health Partners of Western Ohio, Lima, OH
58	Hudson River Health Care Inc./Brightpoint Health, New York, NY
60	Whitman-Walker Health, Washington, DC





# PREFACE

In 2000, a report by the United States Surgeon General described poor oral health as a silent epidemic. Since then, there has been mounting evidence on uneven access to oral health services. Furthermore, those with the most limited access include children, older adults, racial/ethnic minorities, and low-income populations.

Oral health providers are using a variety of innovative strategies to expand access to oral health services in community-based settings, including federally qualified health centers (FQHCs), schools, and nursing homes, among others.

In recent years, the Oral Health Workforce Research Center (OHWRC) at the Center for Health Workforce Studies (CHWS) at the University at Albany, School of Public Health conducted several qualitative studies to describe innovations in oral health service delivery that expanded access to care for the underserved. These studies were conducted under a cooperative agreement with the US Health Resources and Services Administration (HRSA), National Center for Health Workforce Analysis.

This research focused on 4 areas of innovation:

- **Integration of primary care and oral health services**
- **Teledentistry services**
- **Mobile/portable dentistry services**
- **Integration of primary care, oral health, and behavioral health services**

More recently, the OHWRC developed a compendium that summarizes best practices in innovative oral health service delivery programs drawn from over 40 case studies. The compendium describes organizations that have been actively involved in the areas of service integration, mobile and portable dentistry, and using teledentistry to increase access and improve outcomes for patients.

The compendium was prepared for OHWRC by Leanne Keough, Morgan Clifford, Margaret Langelier, Nubia Goodwin, and Tom Melnik from the CHWS at the University at Albany's School of Public Health. Matt Allegretti and Jon Serrano assisted with layout design. OHWRC is supported by HRSA of the US Department of Health and Human Services (HHS) as part of an annual award totaling \$448,203. The contents of the compendium are those of the authors and do not necessarily represent the official views



of, nor an endorsement by, HRSA, HHS, or the US Government. For more information, please visit [HRSA.gov](https://www.hrsa.gov).


The mission of the OHWRC is to provide accurate and policy-relevant research on the impact of the oral health workforce on oral health outcomes. The research conducted by the OHWRC informs strategies designed to increase access to oral health services for vulnerable populations. The OHWRC is based at CHWS at the School of Public Health, University at Albany, State University of New York (SUNY), and is the only HRSA-sponsored workforce research center with a unique focus on the oral health workforce.

*February 2020*



## *ACKNOWLEDGMENTS*

Special appreciation is extended to the leadership and staff at each of the provider organizations that are included in the compendium. Their insights into the value and conduct of these oral health programs were invaluable to this project.



*Suggested Citation:*

Keough L, Clifford M, Langelier M, Goodwin N, Melnik T. *Compendium of Innovations in Oral Health Service Delivery*. Rensselaer, NY: Oral Health Workforce Research Center, Center for Health Workforce Studies, School of Public Health, SUNY Albany; February 2020.





# INTEGRATION OF PRIMARY CARE & ORAL HEALTH

While the value of integrated health services delivery is generally acknowledged, efforts to integrate face structural barriers that confound integration. The separation of dentistry and medicine in the larger health care delivery system is an important barrier to integration that is often cited as contributing to oral health disparities.<sup>1</sup> Federally qualified health centers (FQHCs) are structurally integrated organizations that deliver primary care, behavioral health, oral health, and ancillary services, including pharmacy, for their patients. As the medical home for many people who lack access to oral health services, FQHCs are well positioned to also provide a dental home for their patients.

To integrate oral health and primary care, FQHCs often:

- Use team-based approaches to provide oral health services
- Implement policies to support oral health assessments of patients in primary care clinics and routine referrals to the FQHC dental clinic
- Use technology to improve access to oral health services (eg, integrated EHRs and teledentistry)
- Employ new oral health workforce models to expand access to oral health services (eg, the community dental health coordinator)



Benchmark programs from the following 7 FQHCs that integrate oral health with primary care were selected for inclusion in the compendium:

- Ammonoosuc Community Health Services, Littleton, NH
- Blackstone Valley Community Health Care, Pawtucket, RI
- Lake Superior Community Health Center, Duluth MN & Superior, WI
- Penobscot Community Health Care, Bangor, ME
- Ravenswood Family Health Center, East Palo Alto, CA
- United Community and Family Services, Norwich, CT
- Wayne Memorial Community Health, Honesdale, PA

For more information on oral health and primary care integration, see the full report: *Case Studies of 8 Federally Qualified Health Centers: Strategies to Integrate Oral Health with Primary Care.*



*Every woman who is pregnant gets a dental referral for a cleaning and checkup. Medicaid will pay for it. We give them a referral immediately and if they don't have a dentist, which most don't, we send them across the street to the dental clinic.*





**ACHS**

Ammonoosuc Community Health Services

<https://ammonoosuc.org>

Best Practice: INTEGRATION OF ORAL HEALTH & PRIMARY CARE

Littleton, NH

## 5 Primary Care Clinics



Medical  
Dental  
Behavioral Health  
Pharmacy  
Patient Support  
Vision  
Nutrition/Wellness

Substance Use Treatment Services  
Behavioral Health in Schools (K-12)  
Primary Care Integration in  
Community Mental Health Centers  
(Crossroads Clinic)  
Integrated Dental Services with the  
Grafton County Nursing Home

## 1 Dental Clinic



Dental Exams  
Pediatric Dental Care  
Cleanings  
Restorative Treatments  
Prosthodontics (dentures & partials)  
Tooth Extractions

## 10,576 Patients Served



12.7% Children (<18 Years)



60.8% Adults



26.4% Older Adults (>65 Years)



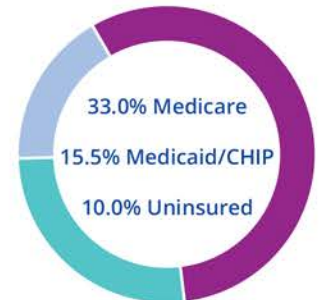
White, Non-Hispanic



Rural



54.7%  
At/Below 200%  
Federal Poverty Level



### 1975

ACHS was established with its main clinic and administration offices located in Littleton, NH

### 2002

ACHS began providing oral health services at a dental clinic adjacent to the main health center in Littleton, NH

### 2019

NCQA Patient-Centered Medical Home

Fully equipped dental clinic with 5 operatories

ACHS is co-founder of the North County Health Consortium (NCHC), which is the area Public Health Network, Area Health Education Consortium, and a member of several Accountable Care Organizations

As an integrated system of care, clinical, administrative, and other functional teams meet regularly to evaluate organizational goals for patient outcomes.





**ACHS**

Ammonoosuc Community Health Services

<https://ammonoosuc.org>

### **Problem:**

- Until 2014, ACHS did not have a dental clinic to directly provide oral health services
  - It relied on a voucher system for patients to seek care from dentists in the local community
- Patients with dental problems were presenting at the local hospital ED for care
- The unmet need for services was evidenced by the severity of presenting cases requiring surgical incision, drainage, and extractions

### **Solution/Workforce Strategy:**

- The Affordable Care Act provided opportunities for community health centers without existing dental clinic space, equipment, and professional workforce to directly provide oral health services by expanding health center facilities
- The dental clinic is staffed by 3 dentists and 2 dental hygienists
- The University of New England Dental School contracted with ACHS as a preceptor dental clinic to provide community rotations for its dental students

### **Facilitators:**

- Co-location of primary, oral, and behavioral health care is a facilitator of integrated service delivery
- A compatible dental module was added to the robust ACHS electronic health record system
  - New templates and work forms were included in the EHR to allow seamless access to the dental and medical records to further facilitate integration
- Medical and dental care integration aligns professional values with the organizational mission to provide comprehensive high-quality care
- ACHS is an FQHC operating as an Accountable Care Organization and Patient-Centered Medical Home
  - This integrated model is ideally structured to provide patient-centric services using an array of multidisciplinary providers to improve outcomes

### **Barriers:**

- The New Hampshire Medicaid program provides only limited dental coverage for adults and is mostly restricted to urgent treatment of dental pain and infection
  - As such, publicly-insured patients and the uninsured pay for dental services on a sliding-fee scale based on individual or family income

### **Benefits:**

- Demand for ACHS dental services is high
  - The availability of dental services has resulted in improved outcomes for patients
- Overarching oral health clinical goals can be integrated into all clinical areas using bidirectional referrals across disciplines
  - Patients receive a range of diverse health services within the co-located provider setting

**5 Primary Care Clinics**



Medical  
Dental  
Behavioral Health  
Pharmacy  
Maternal Women's Health  
Vision  
Express Health Care

with **2 Dental Clinics**



Dental Exams  
Emergency Dental Services  
Cleanings  
Restorative Treatments  
Sealants & Fluoride Treatments  
Tooth Extractions  
Teledentistry

**1 School-Based Health Center**



Primary Care  
Behavioral Health

**18,732 Patients Served**



30.7% Children (<18 Years)



61.7% Adults



7.7% Older Adults (>65 Years)

15.8% White, Non-Hispanic

32.7% Black/African American

1.7% Asian

2.5% Native American

59.3% Hispanic/Latino

8.1% Other/Mixed



Metropolitan/  
Rural



96.0%  
At/Below 200%  
Federal Poverty Level



58.1%  
Medicaid/CHIP  
16.8% Uninsured

**1990**

Founded when several smaller health clinics joined together. The dental clinic opened later in 1994

**2006**

Began an integrated health record system that included a practice management module to improve quality of care delivery

**2019**

Level 3 Patient-Centered Medical Home  
Pawtucket location has a fully equipped dental clinic with 12 operatories  
BVCHC recently opened a Neighborhood Health Station in Central Falls which includes a dental clinic with 8 operatories  
Total of 5 dentists, 4 dental hygienists, and 2 dental students  
BVCHC partnered with the Agnus Little School in Pawtucket in 2019 and plans to pilot a teledentistry program in 2020

In just 3 months after opening its location in 2012, the dental clinic -- staffed by 5 dentists, 2 dental students, and 2 dental hygienists -- was fully scheduled.

### **Problem:**

- Primary care physicians had significant difficulty referring patients to the dental clinic because dental services were in high demand from the external community
- The health center had separate paper medical and dental record keeping systems and recognized the need for an integrated health record system

### **Solution/Workforce Strategy:**

- BVCHC is well known for its use of information technology to improve the quality of care delivery
- A comprehensive integrated electronic health record system was built with a hub that bridges information in separate medical and dental records
- A recent smartphone application allows patients to track health information for feedback to health care providers

### **Facilitators:**

- BVCHC hosts dental students through externships from the Boston University Goldman School of Dentistry
  - These students complete clinical externships lasting 10 weeks
  - This arrangement increases capacity and enhances dental clinic work flow
  - Providing dental student externships affords the FQHC with the opportunity to recruit new dentists
- The National Health Service Corps Loan Repayment and Scholars Program is helpful in recruiting new dentists to the health center

### **Barriers:**

- BVCHC patients can access pediatric dental services at the nearby St. Joseph's Hospital, but many travel to specialists in bordering Massachusetts to obtain oral surgery or endodontic care
- The Rhode Island Medicaid adult dental benefit limits coverage for reparative and restorative services and provides only very limited coverage for oral surgery on a fee-for services basis
  - Specialty dental services are difficult to find for Medicaid recipients in the Pawtucket area

### **Benefits:**

- Primary care providers at BVCHC perform oral exams during routine physicals
- Findings from a recent research study conducted by the University of Buffalo suggested that the FQHC PCMH model enables better outcomes
- BVCHC makes special efforts to coordinate service delivery for high-risk patients
  - The needs of high risk patients are reviewed daily by care teams; community health workers visit high risk patient homes to facilitate appointments and visits to the dental clinic to treat unmet oral health needs
- Dental clinic staff are able to access medical records and patients are referred back to primary care
  - Referral coordinators access information and send patient reminders
- Dental clinic staff mine medical records to identify and invite families with young children to make an appointment for dental care





Lake Superior Community Health Center (LSCHC)  
<https://lschc.org>

Best Practice: INTEGRATION OF  
 ORAL HEALTH & PRIMARY CARE

Superior, WI & Duluth, MN

## 2 Primary Care Clinics



Medical  
 Dental  
 Behavioral Health  
 Health Care Access  
 Office

## with 2 Dental Clinics



Preventive Care  
 Restorative Care  
 Oral Health  
 Education  
 Dentures  
 Urgent Care

## 1 Substance Abuse & Behavioral Health Clinic



Mental and Behavioral Health  
 Medication Management  
 Trauma-Informed Care  
 Community Referral

# 10,468 Patients Served



23.5% Children (<18 Years)



65.7% Adults



10.8% Older Adults (>65 Years)



White, Non Hispanic



Metropolitan/  
 Rural



90.5%  
 At/Below 200%  
 Federal Poverty Level



53.8%  
 Medicaid/CHIP  
 15.7%  
 Uninsured

# 1972

LSCHC opened its doors  
 as free clinic

# 2000

LSCHC obtained full  
 FQHC status

# 2005

Dental services were  
 first offered in the  
 Superior clinic

# 2007

Dental services were  
 first offered in the  
 Duluth clinic

# 2019

LSCHC is a certified  
 Health Care Home

In **2009**, Minnesota became the **first state to enable the practice of dental therapy (DT)**, with graduates entering the workforce in **2011**. LSCHC hired its first DT to provide services at the Duluth clinic.





### **Problem:**

- Demand for dental services in LSCHC's catchment area is high, and many private practices do not accept Medicaid patients
- Over 1,000 patients were on the waiting list for dental services and the clinic had high demand for emergency dental care
- Only 6.7% of FQHC patients used both medical and dental services in 2014
  - More than half (58%) of all medical patients were Medicaid insured, but over eight-in-ten (84%) dental patients are Medicaid insured and 10% are uninsured
  - Hospital emergency departments divert dental patients to the FQHC for emergent care

### **Solution/Workforce Strategy:**

- Expansion of dental services, managing the need for emergent care, and creation of a dental home were made priorities
- LSCHC developed an integrated approach to work in partnership with a patient's medical and/or dental provider with behavioral health professionals on site to achieve better outcomes
- The collaborative approach emphasizes team-based care to provide holistic health services

### **Facilitators:**

- LSCHC fosters collaboration between medical and dental providers in the integrated clinics and emphasizes the importance of team-based care delivery
- Dental providers complete reviews of the patient's medical history and refer patients for primary care
  - Dental hygienists and dental assistants provide services in primary medical care clinics screening toddlers and infants
- Full electronic health record integration of the medical and dental records improves system transparency and the ability to review patient medication histories to enhance the quality and continuity of care and prevents duplication of services

### **Barriers:**

- Recruiting dentists to work in an FQHC is a difficult and ongoing process because of the structure of clinic work, long hours, extended days, walk-ins, and high needs of patients in the safety net; these difficulties led to the recognition that new models of care delivery were needed
- Providing health services at the border of 2 states creates unique challenges with respect to differences in Medicaid-insurance coverage and benefits, and the use of dental therapists to treat patients

### **Benefits:**

- LSCHC administrators embrace opportunities to use innovative oral health workforce models to expand capacity, improve worker and patient satisfaction, create efficiencies and foster timely access to care
- Anecdotal evidence points to successful collaborations between medical and dental care providers to improve the quality of care provided



Penobscot Community Health Care

<https://pchc.com/>

Best Practice: INTEGRATION OF ORAL HEALTH & PRIMARY CARE

Bangor, ME

## 7 Primary Care Clinics



- Medical
- Dental
- Chronic Disease Management
- Behavioral Health
- Pharmacy
- Podiatry

## 1 Dental Clinic (Stand Alone Office)



- Dental Exams & Screenings
- Preventive Treatment
- Full Comprehensive Orthodontics
- Restorative Procedures
- Pediatric Dental Services
- Extractions
- Oral Surgery
- Prosthodontics

## 8 Specialized Centers



- Healthcare for Homeless
- Women's Health
- School Based
- Audiology
- Pediatrics
- Elder Care
- Infusion

# 65,110 Patients Served



26.4% Children (<18 Years)



56.3% Adults



17.3% Older Adults (>65 Years)



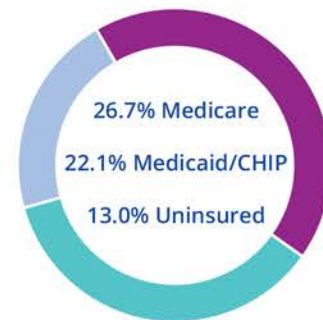
White, Non-Hispanic



Rural



58.4% At/Below 200% Federal Poverty Level



## 1997

PCHC was founded in 1997

## 2000

Penobscot dental center opened with 6 dental operatories

## 2017

65,000 patients and 800 employees

## 2019

PCHC has largest dental center among all FQHCs in the US

PCHC is Maine's largest FQHC and second largest FQHC in New England

1 of 59 FQHCs in the nation designated as a Teaching Health Center

3,000 new medical patients each year

Since opening in 2000, the PCHC dental center **has expanded from 6 to 43 dental operatories: 1/4** used for dental hygiene services, **3/4** used for general and specialty dentistry.







### **Problem:**

- Demand for services is high with staff dentists averaging 16 patient encounters in a 10 hour day
  - 12 to 20 unscheduled patients arrive for emergency services daily
- There is a 2-month long waiting period for appointments
  - Patients may need to travel up to 3 hours to receive oral health services
- PCHC has a no-show rate of 25% for scheduled patients
- Maine's limited Medicaid dental benefit and low reimbursement results in low numbers of participating general and specialty dentists in the state
- Approximately 30% of dental clinic patients are also PCHC medical patients

### **Solution/Workforce Strategy:**

- PCHC configured a multispecialty practice resulting in positive benefits for patients; by providing a comprehensive dental home patients are assured of continuity of care
- Dentists refer patients with concerning conditions to medical care
  - Dentists consult directly with medical providers on mutual patients
- PCHC instituted a no-show policy which removed a patient's privilege to schedule appointments if they consistently missed appointments
  - These patients would be required to walk in and wait for care
  - This policy reduced the no-show rate
- Patient education and promotion of oral health literacy is an integral part of the dental clinic's high rate of plan completion

### **Facilitators:**

- Certified Dental Assistants (CDA) and orthodontic assistants serve as critical members of the oral health team, particularly in dealing with challenging patient cases
- PCHC's school-based oral health program began as a portable program and is now a significant community asset to the children in the Brewer school based clinic which provides preventive and general dentistry services
- PCHC utilizes part-time or partly or fully retired dental specialists who are contributing to the dental needs of the underserved

### **Barriers:**

- Maine's adult Medicaid benefit is limited to emergency services only
  - Many must pay for excluded services on a sliding fee scale or for a set cost for "out-of-scope" services

### **Benefit:**

- Providing multispecialty dental care has proven to be important to clinic patients

## 1 Primary Care Clinic



Medical  
Dental  
Counseling  
Pharmacy  
Women's Health  
Optometry  
Lab & Imaging  
Health Care for the Homeless

## 1 Dental Clinic



Preventive, Restorative & Periodontal Care  
Oral Surgery  
Oral Surgery for Children with Special Needs  
Crowns, Bridges & Dentures  
Root Canals & Fillings  
Emergency Dental Services  
Oral Health Education  
Teledentistry

## 17,724 Patients Served



40.6% Children (<18 Years)



53.5% Adults



5.9% Older Adults (>65 Years)

8.3% White, Non-Hispanic

21.3% Black/African American

5.5% Asian

23.8% Native American

85.4% Hispanic/Latino

10.3% Other/Mixed



Metropolitan



Teledentistry - Virtual Dental Home  
650 Students  
1,200 Encounters



91.4%  
At/Below 200%  
Federal Poverty Level



60.6% Medicaid/CHIP  
33.5% Uninsured

## 2001

Medical facility opened in portable buildings

The South Community Health dental center opened later in a permanent space in 2010

## 2015

Achieved NCQA certification as a Patient-Centered Medical Home

State-of-the-art permanent medical facility opened that also included 2 co-located dental chairs facilitating integration of medical and dental services

## 2019

Ravenswood Family Dentistry opened and expanded to enable an additional 3,500 dental patients

Increased number of chairs from 12 to 21

Includes a pediatric dental wing with 9 chairs

Ravenswood has a diverse racial ethnic minority population where  
**66%** of patients would be best served in a language other than English

## Problem:

- Despite abundant wealth in Palo Alto, which is the home of Stanford University, East Palo Alto has persisted as a predominantly low-income and minority community
- The influx of tech workers, along with the ongoing technology and housing boom in the Bay Area, has exacerbated the financial pressures on low-income residents of the East Palo Alto community
- The availability of affordable local medical and dental care is of critical value
- It is estimated that 75-80% of pregnant women cared for at the clinic are affected by dental problems; many of these women do not realize they have dental coverage through Medicaid

## Solution/Workforce Strategy:

- The co-location of the medical and dental clinics allows for integration, particularly for children and pregnant women
  - Prenatal providers counsel all pregnant women on oral health and provide referrals for dental care
- Pediatric providers make dental issues a top priority and aggressively assess and refer children with dental problems to the dental clinic
- RFHC is participating in a pilot project called the Virtual Dental Home to extend dental care to schools, nursing homes, and Head Start centers using teledentistry and other technology

## Facilitators:

- In 2014, California partially restored previously eliminated adult dental benefits providing comprehensive dental benefits for pregnant women
- The Child Health and Disability Prevention Program provides care coordination to assist families with accessing health services, requires a dental assessment and report, and covers children seen at RFHC
- RFHC is equipped with an EHR
  - The dental EHR allows for capture of both diagnostic codes and treatment delivered for patients, surpassing the standards that most dental offices maintain with their recordkeeping
- Efforts are made to accommodate adult urgent dental needs the same day and the dental clinic makes referrals for identified medical concerns

## Barriers:

- Adult medicine is less formally connected to the dental clinic although the dental needs of adults are very high
  - An ongoing challenge is the need to address a backlog of patients with acute dental problems
- The medical EHR care guidelines do not require the primary care provider to collect any dental data during adult medical visits with the exception of adults with diabetes
- RFHC dental and medical record EHRs are not linkable and thus do not allow for seamless integration
  - RFHC is assessing the feasibility of creating additional interfaces to improve cross-functionality
  - For the time being, referrals are made on paper and faxed to the medical or dental clinics

## Benefit:

- Before the RFHC dental clinic opened, there was virtually no access to dental care for the immigrant community with high unmet dental needs



**4 Primary Care Clinics**



- Medical
- Dental
- Women's Health
- Behavioral Health
- School-Based Health Centers
- Client Support Services
- Pharmacy
- Eldercare

**2 Dental Clinics**



- Oral Health Education & Prevention
- Fillings
- Sealants
- Dental Examinations
- Dental Extractions
- Oral Health Prophylaxis (Disease Prevention)
- Crowns & Root Canals (Norwich location only)
- Denture Services

**7 Other Locations**

**2 Behavioral Health**

**1 Adult Day Center**

**6 School Based Health Centers**



**Mobile Dental in 10 towns**

**19,707 Patients Served**



35.1% Children (<18 Years)



58.5% Adults



6.4% Older Adults (>65 Years)

68.1% White, Non-Hispanic

14.0% Black/African American

4.8% Asian

2.0% Native American

20.4% Hispanic/Latino

2.9% Other/Mixed



Metropolitan



88.5% At/Below 200% Federal Poverty Level



60.3% Medicaid/CHIP  
7.0% Uninsured

**1999**

The current organization was a merger between 2 community service agencies: United Community Services and the Family Health Association

The organization provided a range of clinical services for children

**2019**

UCFS currently operates as an FQHC

Provides medical, behavioral, and dental services with a focus on integration

The Connecticut Medicaid program covers a comprehensive menu of oral health services for children under age 21 and extensive coverage for adults

Women's health services were added in 2019

UCFS sponsors a mobile/portable dental program in **26** schools, a school-based health center, an elder day care program, and a residential care facility for elders.

### **Problem:**

- UCFS does not require dental or behavioral health patients to also be primary medical patients
- UCFS provides a high volume of restorative and extraction services because of high caries rates
- There is a high no-show rate for dental clinic services

### **Solution/Workforce Strategy:**

- More than one-third (36.7%) of dental patients are also primary medical patients and 14.5% of dental patients receive behavioral health services at one of the UCFS clinics
- With the support of a fully integrated EHR, UCFS integrates a dental hygiene visit with a child's well care visit for children 1-3 years old
- Referrals to primary care providers from the dental clinic are mostly for adults
  - UCFS clinic staff are oriented to help adult patients establish a comprehensive health home and to continually work toward integration of care delivery across disciplines
- New dental patients are referred from the hospital ED, word of mouth, and internally by providers
- UCFS developed a uniform no-show policy requiring patient agreement to complete scheduled appointments
- UCFS now offers dental screenings to school children in Grades 6, 7, 9, and 10

### **Facilitators:**

- The dental clinic accommodates patients by offering walk-in and Saturday appointments as well as evening hours Monday-Thursday
- Connecticut Medicaid also covers separate oral health screening and assessment services for children which facilitates dental hygiene assessment and referrals in school-linked oral health programs

### **Barriers:**

- Transportation to the Norwich clinic is an issue
  - The bus service is infrequent with limited routes requiring multiple transfers
- The casino provided workers with transportation to the Norwich clinic, but that service was stopped impeding access to medical, dental, and behavioral health services

### **Benefits:**

- Dental and medical providers are making mutual referrals for needed care
- Behavioral health service providers also make referrals to the dental department



12 Primary Care Clinics

with 2 Dental Clinics

5 Other Locations



Medical  
Women's Health  
Veteran's Health



Dental Exams  
Preventive Treatment  
Periodontal Treatment  
Restorative Procedures  
Dentures, Partials & Fixed Bridges  
Dental Education  
Mobile Dental Services



Behavioral Health  
Specialty Care

45,151 Patients Served



29.5% Children (<18 Years)



48.0% Adults



22.5% Older Adults (>65 Years)



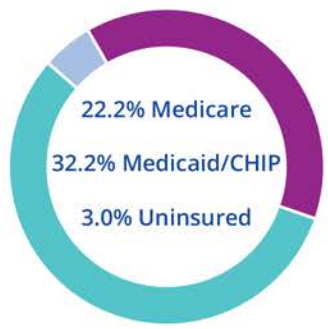
White, Non-Hispanic



Rural



82.0%  
At/Below 200%  
Federal Poverty Level



1998

WMCHC began as a health foundation providing dental services for underserved children

2008

WMCHC became an FQHC in 2007, with the first primary care facility opening in Honesdale in January of 2008

2019

WMCHC is a progressive, multi-specialty group made up of primary care, women's health, behavioral health and dental sites, plus specialty practices

WMCHC is part of the Keystone Accountable Care organization. Through continuous efforts to offer the highest quality care, WMCHC provides care following the Patient-Centered Medical Home (PCMH) care model.



### Problem:

- WMCHC is the only dental provider in the county that participates with the state Medicaid program
- The demand for dental services is high and waiting rooms are often full
  - About one-half of dental patients are also medical patients receiving primary care through WMCHC
- There is a high no-show rate among scheduled dental patients, particularly among those scheduled for preventive care following emergency care

### Solution/Workforce Strategy:

- All patients seen at the dental clinics provide a medical history and blood pressure and are referred to primary care as needed
- Pregnant women in Pennsylvania have a full Medicaid dental benefit
  - The Women's Health Clinic refers obstetrical patients to the dental clinic for preventive and restorative care
- Dental hygienists qualified as public health dental hygiene practitioners (PHDHP) and a community dental health coordinator (CDHC) educate school children and local community groups about the relationship between oral health and systemic well-being
- The PHDHP/CDHC provides preventive services in primary care practice offices using portable equipment for patients with no dental home, and makes referrals to the dental clinic as needed
- Medical clinicians perform preliminary oral health assessments and schedule patients for dental services
- WMCHC has structured policies and procedures to reduce no-shows
  - Patient and community education efforts encourage patients to engage in preventive dental hygiene and voluntarily schedule appointments
- Private practice dentists work part-time in the FQHC to care for the underserved, support the safety net and take referrals from the school-based oral health programs managed by the FQHC

### Facilitators:

- Several MCOs contracted with the state Medicaid program to integrate dental coverage, transportation and other services with covered medical services
- The state provides wraparound payments for dental services to reconcile the difference between prospective payment system rates and fees paid by managed care organizations

### Barriers:

- The adult Medicaid dental benefit is limited and generally excludes root canals, crowns, and extensive periodontal services
- Local patients are not always aware of the services available to them at the WMCHC dental clinics
  - Some learn about the FQHC's dental clinics when they are referred there by a hospital ED

### Benefit:

- The innovative PHDHP/CDCH dental workforce team model enhances dental clinic efficiency, improves community outreach, and increases access to oral health services





# TELEDENTISTRY

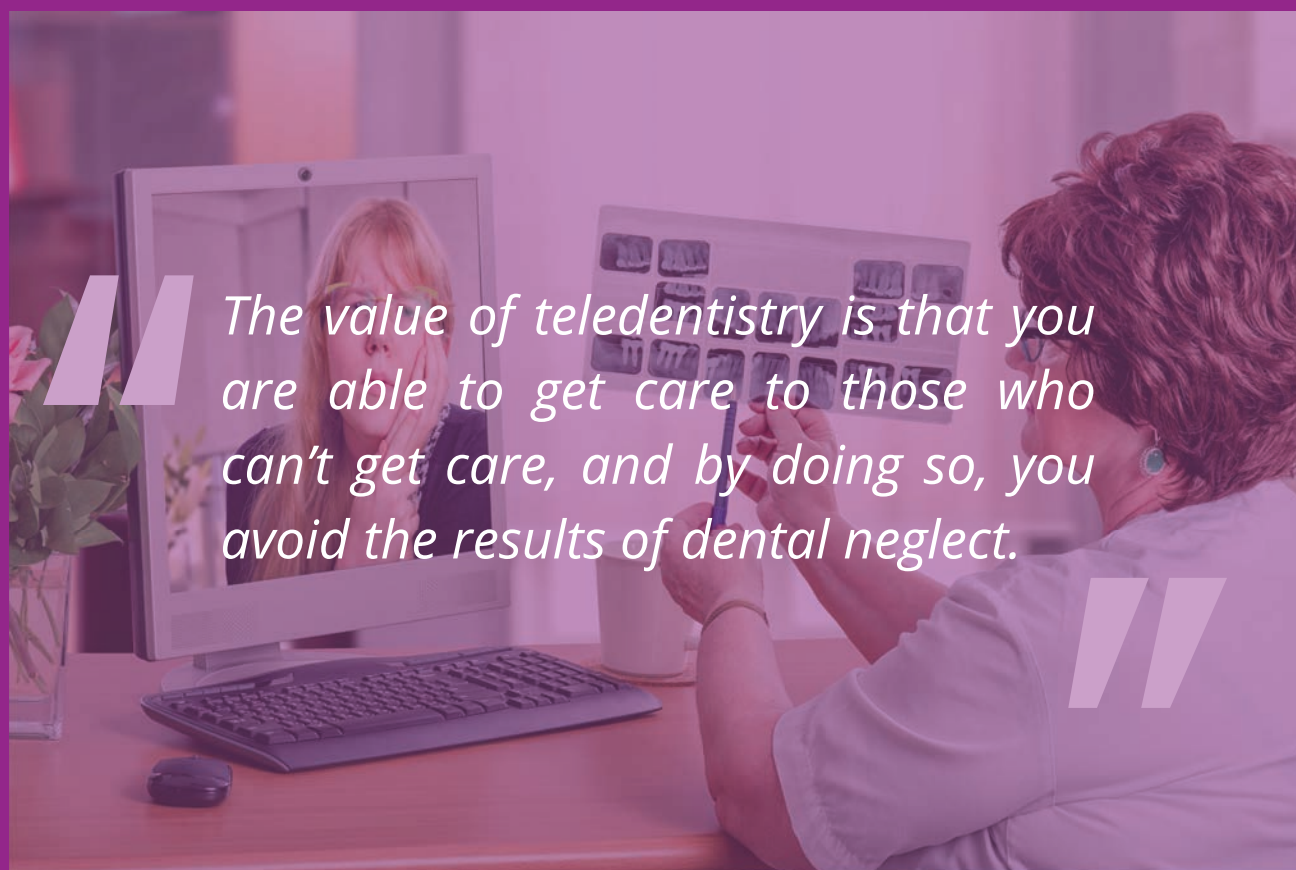
Although dental services are now increasingly provided in public health settings in rural areas, including federally qualified health centers (FQHCs), access to services in the safety net is constrained by limited resources and capacity, including a limited supply of clinical providers. The use of teledentistry as a means to improve access to oral health services in areas with inadequate availability of general and specialty dental care is emerging as a practical solution, especially for treatment planning and specialty consultations.

Teledentistry services mainly include:

- Face-to-face consultations in real time by video conference between a general or specialty dentist and a patient located in a separate, distant location
- Store-and-forward consultations between a general and specialty dentist or between a dentist and a dental hygienist in which images and records are obtained from the patient and sent to the dental professional for review and planning at a later time
- Remote monitoring of patients, in which electronic health devices collect data in real time that is transmitted to health care providers at a distant location for review and action as needed
- Educational tools for dental professionals and others in dental schools and residency programs and in the clinics where it is used

Benchmark programs from the following 5 provider organizations were selected for inclusion in the compendium:

- Apple Tree Dental, Minneapolis, MN
- Capitol Dental Polk County Teledentistry, Independence & Salem, OR
- Community Dental Health (Formerly Senior Mobile Dental), Colorado Springs, CO
- Finger Lakes Community Health, Penn Yan, NY
- NYU Langone Health, NYU Langone Dental Medicine (Formerly NYU Lutheran Dental Medicine), Brooklyn, NY



For more information on teledentistry, see the full report: *Case Studies of 6 Teledentistry Programs: Strategies to Increase Access to General and Specialty Dental Services.*



## 7 Dental Clinics



- Preventive Dental Care
- General Dentistry
- Sedation Dentistry
- Dental Implants
- Geriatric and Special Needs Dentistry
- Pediatric Dentistry

## Mobile Dental Care Delivered at

# 145 Sites



- Schools
- Head Start Programs
- Behavioral Health Facilities
- Rehabilitation Programs
- Assisted Living and Skilled Nursing Facilities

## Special-Needs Dentistry is a Primary Focus at Apple Tree Dental (ATD), Serving:



Low-Income Children and Families



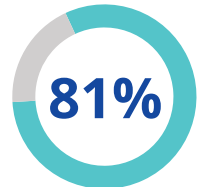
Adults with Disabilities



Seniors Living in Residential Facilities



Metropolitan and Rural Communities



Publicly Insured

In 2018,

# 34,455 Unique Individuals Received Care with Over 96,000 Patient Encounters

## 1985

ATD was established to meet the needs of the frail elderly living in and around the Twin Cities of Minneapolis and St. Paul

## 2002

Collaborative Practice Dental Hygienists were permitted to perform required dental screenings for children enrolled in Head Start making teledentistry a viable model for care delivery

## 2019

ATD employs nearly 200 clinical and administrative staff

Apple Tree Dental has provided more than **1.3 million dental visits** and screenings to patients in more than **30 years** of operation.





## Problem:

- All children ages 3 to 5 years old who are entering a Head Start program are required by federal regulations to have a dental screening examination within 90 days of enrollment
- Many Head Start children were failing to meet this requirement because few dentists participated in the state's Medicaid program

## Solution/Workforce Strategy:

- Apple Tree Dental teamed with a consortium of stakeholders including Minnesota Head Start, the Minnesota Dental Hygiene Association, and the Minnesota Dental Association to obtain state and federal approval for a Head Start onsite care model that could include teledentistry
- A pilot program conducted prior to implementation found that treatment plans developed through teledentistry and decisions regarding necessary treatments were consistent with in-person treatment planning
- Teledentistry services delivered onsite at Head Start programs involve the services of a dental hygienist to examine the oral cavity of each child, chart areas of concern, acquire digital images using an intraoral camera, and store the images for forwarding for a dentist's evaluation, treatment planning and scheduling of restorative care as needed

## Facilitators:

- Apple Tree Dental's focus on special-needs dentistry has led to innovative care delivery models to keep patients healthy and to provide services in the least restrictive and most cost effective settings
- Apple Tree Dental employs a full complement of dental professionals and auxiliary personnel, and also emphasizes a team approach to care delivery that is fully integrated

## Barriers:

- Some communities had insufficient telecommunication bandwidth to securely transmit high quality images
  - Real-time video consultations were tested during planning, but it was determined that a "store-and-forward" method would be both more technologically viable and productive in many community-based settings.
- In 2010 Minnesota's Medicaid policy was changed to reimburse only dental services provided in face-to-face encounters
  - A new statute was passed that enables the provision of teledentistry services beginning in 2016

## Benefit:

- The teledentistry program was a positive experience for both the families and the staff. As a result of this project, the percentage of Head Start children receiving a screening examination statewide increased from 73% in 2003-2004 to 90% in 2006-2007
  - The population served by this initiative was diverse and included children from immigrant and migrant families, many of whom had significant dental treatment needs
- The use of teledentistry and a cloud-based electronic health record have also benefited patients served on-site at collocated outreach clinics serving older children, adults, and elders



## School-Based Teledentistry



Capitol Dental Care's (CDC) pilot program is part of the Oregon Telehealth Network for Oral Health, a collaboration of teledentistry programs across the state

## 3 Elementary Schools and 2 Head Start Programs Participate



Case Management

X-rays

Dental Exams

Fluoride Varnishes

Fluoride-releasing Fillings

Sealants

Routine Cleanings

Diagnostics

Intraoral Photographs

# 966 Children Received Dental Care From 2015-2018 (Targets kindergarden - 2nd grade students)



539 had untreated decay



Staffed by Expanded Practice Dental Hygienists in schools

**At the time the program launched**

**Only 33%** of Polk County students had annual dental visits



Capitol Dental staffs dental operatories in a school based clinic in the community to which children can be referred



Captures photos and x-rays to aid dentist in developing a treatment plan

**66%** had not seen a dentist in the year

**949** children with parental consent were served by the program



Rural Communities



Uses asynchronous store and forward modality to consult with remote dentist

The Expanded Practice Dental Hygienist provides services at a local pediatricians office during the summer months

## 2015

CDC began a teledentistry pilot project based on a similar model developed by California's University of the Pacific Innovations Center. The pilot was supported by the Oregon Health and Science University with approval from the Oregon Health Authority

## 2016

The program continued in schools with support from various community partners

## 2018

In 2017-2018, 820 students received dental care; 82% of consent forms were returned, 70% of parents provided consent, 95% of these students received services, and 53% had untreated decay

## 2019

The program expanded within Polk County to Fall City Grade School (Pre-K - Grade 8) in the spring of 2019

## Problem:

- Polk County, Oregon, a Dental Health Professional Shortage Area (DHPSA), has few dentists who accept patients insured with the Oregon Health Plan (Oregon's Medicaid program)
  - Dentists who accepted Medicaid patients were booked many months in advance, causing patients with dental needs to wait for an appointment or travel to an adjoining county for dental care
- Few students were seeing dentists on a yearly basis and caries rates were high

## Solution/Workforce Strategy:

- Capitol Dental Care's school-based Virtual Dental Home (VDH) has allowed students in Polk County to receive services from an integrated team of expanded practice dental hygienists and dental assistants for routine dental visits and dentists for treatment planning
- Portable dental chairs are set up in makeshift dental offices in various locations throughout the school
- The team uses teledentistry to consult with remotely located dentists and share photographs and radiographs through a secure server
  - From there, the dentist can develop a treatment plan and determine if a patient needs further treatment

## Facilitators:

- The pilot program was supported by a grant from Oregon's Health Authority and the Office of Rural Health using federal State Innovation Model grant funds
- Capitol Dental Care's VDH model is a part of the newly-formed Oregon Telehealth Network for Oral Health, a collaboration of teledentistry programs across the state that mainly serves rural areas

## Barriers:

- Gaining permission to use teledentistry required approval of the Health Authority
- The program is offered to Head Start programs, but it is a challenge due to the young ages of the patients, limited time for exams, and lack of parent consent
  - Because of these factors, serving Polk County's elementary schools became the primary focus
- Limited space at the schools made it difficult to secure spots for the portable dental offices, but each school was able to find some space, including a stage, a cafeteria, a nurse's office, an upper-level room accessible only by elevator, and a corner classroom

## Top Benefit:

- The VDH model allows students to receive preventive oral health services during the school day, reduces the need for parents to take time from work, and reserves local dentist capacity for higher needs patients



# COMMUNITY DENTAL HEALTH

Formerly Senior Mobile Dental  
<https://CommunityDentalHealth.org>

Colorado Springs, CO

## 2 Fixed Dental Clinics



- X-Rays
- Extractions
- Partial & Full Dentures
- Periodontal & Preventive Cleanings
- Silver Diamine Fluoride Treatment
- Fluoride Varnish
- Emergency Needs
- Composite Fillings

## 1 Mobile and Portable Van Delivering Services



- Canon City, CO
- Woodland Park, CO
- Rifle, CO
- Colorado Springs, CO

### Patients Served



Community Dental Health (CDH) treats all ages with a main focus on the older adult and veteran populations

Patients are mostly low-income older adults relying heavily on Medicaid reimbursement for services

### Telehealth Technology



Links allied dental personnel in the community with dentists in dental offices and clinics

Patients receive preventive and simple therapeutic services in their community, rather than traveling hours for treatment

### Locations Served

CDH serves metropolitan and rural communities



### Mission

CDH's mission is to provide a dental home for all low-income, uninsured, and underinsured persons needing assistance at little or no cost

## 2006

CDH was founded as an independent dental hygiene practice to provide preventive oral health services for residents of skilled nursing facilities

## 2013

Teledentistry was introduced when the main fixed dental clinic opened

## 2019

CDH is now a full service dental provider operating in fixed clinics and in mobile programs in community settings

Last year, **Community Dental Health** provided more than **\$3 million worth of dental care.**





### **Problem:**

- Nursing home residents are at high risk for declining oral health, suffering from oral neglect and many experience rampant tooth decay
  - Residents receive basic preventive and therapeutic services in their nursing home and community but may need to travel hours for referrals and treatment
- Pre-existing conditions including use of medication causing dry mouth, cognitive impairment, and overactive gag reflexes make it difficult to conduct routine oral hygiene

### **Solution/Workforce Strategy:**

- Through Virtually Connected Dentistry, Community Dental Health utilizes telehealth technology to link allied dental personnel in the community with dentists in dental offices and clinics
  - A “store-and-forward” method provides intra-oral photographs and digital x-rays to the dentist, enabling the hygienist to show areas of disease and trauma for diagnosis and treatment planning
- A van equipped with a wheelchair ramp and a Panorex machine allows nursing home patients to receive diagnostic services in a minimally invasive way on site
- Dental hygiene services are provided to patients in the nursing home using portable equipment while any needed dental treatment is provided in a fixed clinic

### **Facilitators:**

- Colorado laws and regulations allow for independent dental hygiene practice, dental hygiene business ownership, interim therapeutic restorations by dental hygienists, and direct reimbursement for dental hygiene services
- Nursing home patients are seen on a 3-month recall basis and all records are provided to the nursing home for inclusion in the patient’s health record
  - Community Dental Health uses Open Dental software to chart patients’ oral health history, status, and treatment planning

### **Barriers:**

- Financial stability of the program is an ongoing concern as Community Dental Health is heavily reliant on Medicaid reimbursement and state grants
  - The annual Medicaid dollar limit leads to patients exhausting their dental benefit and not scheduling services
- A high turnover rate of nursing home direct care and administrative staff requires ongoing education and literacy relative to the importance of oral health services
  - The turnover also causes a loss of continuity of care

### **Benefit:**

- Teledentistry allows Community Dental Health to provide efficient, effective dental care, while reducing the impact of cultural, financial, and transportation barriers to accessing care



 **9 Primary Health Center Sites**  
Covering 6 Counties in the Finger Lakes

- |                     |                                                                   |
|---------------------|-------------------------------------------------------------------|
| Medical             | Telehealth Including Teledentistry                                |
| Dental              | Linked to Pediatric Dentists at Eastman Institute for Oral Health |
| Reproductive Health | Walk-in Services                                                  |
| Behavioral Health   | Evening Appointment Hours                                         |
| Patient Support     |                                                                   |
| Pharmacy            |                                                                   |

 **Enhanced Services**

- Voucher Program Covering 42 Counties
- Mobile Medical Services
- Portable Dental Services at Schools, Jails, Agra Business Child Development (ABCD) Centers, Tutorial Programs

 **Telehealth**

- Tele-Pediatric Dentistry
- Tele-MAT
- Tele-Hep C
- Tele-HIV
- Tele-Behavioral Health
- Tele-Pediatric Neurology
- Tele-LGBTQ+
- Digital Retinopathy Screenings (DRS)



**801 children**

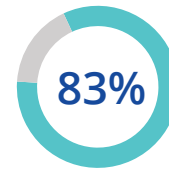
received a teledentistry consult in 2018

**9 months**



**3-4 weeks**

9 month wait time reduced to 3-4 weeks for pediatric dental consultation



83% completed their treatment plan

**28,123 Patients Served at the Federally Qualified Health Center (FQHC)**



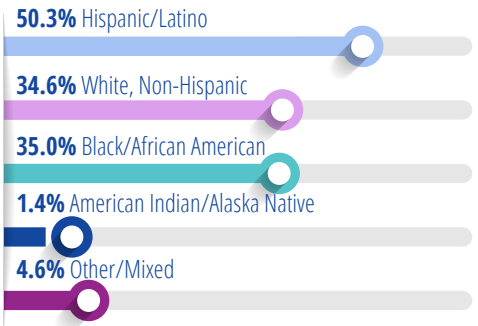
30.0% Children (<18 Years)



63.0% Adults



7.1% Older Adults (>65 Years)



Rural



85.6% At/Below 200% Federal Poverty Line



**63%**

Patients Best Served In Another Language

**1989**

Established as a stand-alone health program for migrant & seasonal farm workers

**2003**

Became designated as an FQHC

**2008**

Began providing telehealth services

**2010**

Began providing teledentistry services to enable specialty care and provide a continuum of care

**2019**

Currently serves the community as an FQHC and a Migrant Health Center Program using multiple telehealth modalities

### **Problem:**

- Few children treated in the mobile dentistry programs ever complete specialty referrals from those visits
- Numerous barriers to specialty care included lack of insurance, limited transportation options, distance to specialty providers, cultural and language barriers, and inability to take time off from work
- Transportation to specialty services accompanied by health navigators and community health workers proved to be costly and ineffective

### **Solution/Workforce Strategy:**

- Teledentistry was piloted for a year prior to full implementation to ensure a seamless process
- Specialty providers are contracted to provide real-time video consultations and counseling sessions
- Preparatory work was done to identify and negotiate with specialty providers and is an ongoing process; implementing teledentistry services requires careful program development and the full commitment of professional, administrative, and support staff
- Teledentistry specialty consulting for pediatric patients is provided by the Eastman Institute for Oral Health in Rochester, NY
- Care coordinators are required and assigned to patients to ensure appropriate follow-up for primary care and in the specialty clinic
  - All scheduling of teledentistry passes through the care coordinators
- The quantity of telehealth services delivered required FLCH to engage support staff to help patients break down barriers to care

### **Facilitator:**

- The technology to enable the expansion of telehealth services includes networking bridges, a phone service, video conference equipment, voice-over-IP, and electronic health and dental records

### **Barriers:**

- IT support and appropriate audio, video and peripheral equipment is needed by both the presenting professional at the spoke and the consulting professional at the hub
- A learning curve is necessary at implementation of teledentistry to ease provider concerns about transitioning to consultation through technology

### **Benefit:**

- Children are connected to necessary specialty dental services and receive supports to complete treatment

NYU Langone Dental Medicine  
 Formerly NYU Lutheran Dental Medicine  
<https://www.lmcdental.org/programs/aegd>

## 442 Residents in 7 Programs



- Advanced Education in General Dentistry (250+)
- Dental Anesthesiology (24)
- Dental Public Health (18)
- Endodontics (10)
- General Practice Residency (12)
- Orthodontics & Dentofacial Orthopedics (8)
- Pediatric Dentistry (12)

## 340+ Dental Clinical Training Sites



NYU Langone Dental is the largest dental residency program in the United States, with sites in:

- 31 States
- Puerto Rico
- US Virgin Islands
- Trinidad and Tobago

650 faculty



The program uses **telehealth technology** for distance learning and patient consultations in:

- Clinical operations
- Community health centers
- Schools of dentistry
- Public health programs
- Healthcare organizations
- Private solo or group practices



### 75% Clinical Curriculum

Faculty-to-student ratio as high as 3:1



### 25% Didactic Curriculum

Advanced interactive distance learning methods for lectures, case and literature reviews



**1.5 million** vulnerable patients treated annually by the program

Mainly at FQHCs and other community dental clinics

## 1974

NYU Langone Dental launched its first general practice residency program which focused on comprehensive, continuous care in a level-1 trauma center

## 1988-2004

The AEGD, pediatric dentistry, endodontics, anesthesiology, and orthodontics residency programs were established

## 2019

Each site is equipped to enable distance learning and video-conferencing for residents

More than 400 residents in clinical training sites

In the **2016-2017** academic year, NYU Langone Dental residents treated approximately **692,000 unique patients**, majority of whom would not have received care.

NYU Langone Dental Medicine  
Formerly NYU Lutheran Dental Medicine  
<https://www.lmcdental.org/programs/aegd>

### **Problem:**

- Dental residents need to gain exposure to the oral health needs of diverse populations and experience practice in settings other than private dentistry
- Host FQHCs serve complex populations with a variety of oral health conditions and varying intensity of treatment needs

### **Solution/Workforce Strategy:**

- NYU Langone Dental operates successful dental residency programs using teledentistry modalities to maximize learning and to promote exposure to diverse patient populations and cases, with the engagement of a network of health centers and organizations
- Each dental resident is required to select and present a case through videoconferencing to dental residents and faculty located at other residency sites
  - The program encourages selection of complex cases who require phased treatment and to present all steps to completion; pre-op, post-op, and sequela
- Clinical training is delivered to residents in real time using video-conferencing equipment on a platform that allows for interactive synchronous learning

### **Facilitators:**

- With 650 affiliated faculty, NYU Langone Dental's residency programs feature an innovative concept, design, and structure that employs a standardized and calibrated core clinical and didactic curriculum which is CODA approved
- The majority of the didactic training is delivered asynchronously through distance learning in on-line directed study on a Sakai interface which is an open-source Java-based instructional platform
- Grant funding from the US Health Resources and Services Administration, the Bureau of Primary Care, and the US Department of Agriculture have supported the expansion of oral health services in host clinics as well as equipment installation to support enhanced learning and greater patient access

### **Barriers:**

- Case presentations must be HIPAA compliant, protecting patient identifiers within information shared over secured networks
- Each training site is required to have the necessary equipment to support the distance learning and videoconferencing for dental residents, including a conference space, microphones, and broadband connectivity

### **Benefit:**

- Graduates are prepared to provide culturally-competent and patient-centered dental care to socially and economically-disadvantaged patients and those with special needs including a variety of complex medical conditions





# MOBILE & PORTABLE DENTISTRY

The volume and variety of mobile and portable oral health programs in the United States has increased over the past century, with school-based and school-affiliated oral health programs now commonplace in high-need communities, in rural areas and underserved urban neighborhoods. Increasingly capable portable imaging technologies and treatment modalities have evolved to enable oral health professionals to provide a range of oral health services in public facilities and other community settings using portable equipment or in mobile vans equipped with fixed dental suites.

Although mobile and portable oral health programs initially focused on children in schools and Head Start programs, many now serve adults and the elderly, especially those in nursing homes or with unstable housing, those with developmental disabilities or other special needs, those with limited transportation, and those who otherwise lack access to private dental practices. Providing preventive and basic restorative oral health services in the community enables oral health professionals to triage patients, conduct risk assessments, and further refer patients for treatment and therapeutic services for more complex conditions. Mobile and portable oral health programs also provide the opportunity to manage periodic preventive care in order to limit the progression of oral disease, especially for vulnerable populations. This, in turn, increases the available capacity in fixed dental clinics and private practices to attend to patients with more complex dental needs.

Benchmark mobile/portable dentistry programs from the following 7 organizations were selected for inclusion in the compendium:

- Access Dental Care, Asheboro, NC
- Eastman Institute for Oral Health, Rochester, NY
- Future Smiles, Las Vegas, NV
- Health Promotion Specialists, Lexington SC
- Jordan Valley Community Health Center, Springfield, MO
- Northeast Mobile Dental Services, Bedford, NH
- St. David's Foundation, Austin, TX



*The medical and dental services provided in the vans open the door to other services because our providers offer education about our health system when they are in the community.*

For more information on mobile and portable dentistry, see the full report: *An Assessment of Mobile and Portable Dentistry Programs to Improve Population Oral Health.*



<http://www.accessdentalcare.org/>

Asheboro, NC

## 94 Facilities

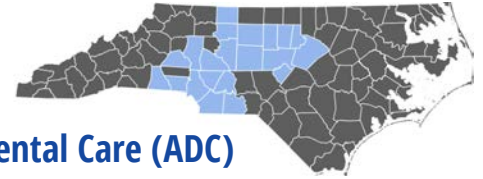
### Served by Mobile Dental Services



- Medical Clinics
- Retirement Communities
- Group Home Day Centers
- Skilled Nursing Facilities
- Programs for All-Inclusive Care for the Elderly (PACE)
- Central Carolina Health Network
- 7-County HIV/AIDS Program

## 33 Counties

### Served by Access Dental Care (ADC)



Primarily in the Charlotte, Greensboro, and Asheboro areas

### Comprehensive Dental Services Provided

- X-rays
- Cleanings
- Oral Cancer Exams
- Dentures
- Bridges
- Extractions
- Fillings
- Treatment for Gum Disease



**19,304**  
Patients Served

Access Dental Care is Committed to Serving Individuals with Intellectual or Physical Disabilities, Frail Elderly, and Medically Complex Patients.



**Medicaid Patients**

**15,968**

In Nursing Homes & Group Homes

**938**

In PACE Programs

**1,533**

In Communities with Disabilities

**864**

In HIV Clinic

**2000**

ADC was founded by the North Carolina Dental Society to serve as a model for special care dental services in the state

**2019**

ADC has delivered \$4.58 million in uncompensated care and has \$20.2 million in gross production

Since its inception, **Access Dental Care** has treated over **19,000 patients** during **100,000 dental visits**.



<http://www.accessdentalcare.org/>

 Asheboro, NC

## Problem:

- Many North Carolinians living with complicated intellectual and physical disabilities have little or no access to dental care

## Solution/Workforce Strategy:

- Access Dental Care (ADC) provides on-site, high quality dental care for frail elderly and individuals with disabilities in nursing and group homes, retirement communities, PACE programs, a 7-county HIV/AIDS program and to special care patients in the community
- Every week day, ADC deploys 4 trucks, each of which is staffed with a dentist, a dental hygienist, and 2 dental assistants, to serve patients in group homes and special care facilities
  - Each team serves approximately 15 to 18 patients with special health care needs daily for a total of approximately 300 patients per week
- Dental equipment is transported to service delivery sites in 16-foot panel trucks modified to hold all equipment and materials
  - Each truck transports 2 fully equipped operatories to provide both preventive and restorative dental services
- ADC contracts with the Regional Center for Infectious Disease (RCID) to provide dental services to patients diagnosed with HIV/AIDs, 3 to 4 days per month, treating approximately 6 patients each day
  - Dental patients served at RCID come from areas within a 7-county region
- ADC has partnered with a dental residency program in the area to train dental residents in special care dentistry
  - In order to create a pipeline of providers, ADC hopes to continue and expand this relationship so that dental residents are working with ADC on a regular basis

## Facilitators:

- ADC's service delivery model was fashioned after and developed by Dr. Michael Helgeson from Apple Tree Dental in Minnesota
- ADC has diverse funding sources to support its work, and each contracted facility has a different funding stream
- Workforce retention has been excellent; while ADC offers competitive salaries, team members are expected to work a 5 day week which is different from a typical private dental practice which is open only 4 days a week

## Barriers:

- While case managers and clinic coordinators strive to facilitate dental services for their patients, no-shows for scheduled services are problematic, so repeated contacts are made and transportation is provided as needed
- The North Carolina Medicaid reimbursement rates are concerning; the low rates impact decisions about program expansion to meet demand unless sustainable funding is assured

## Benefit:

- Access Dental Care provides mobile dental care as part of a seamless integration of health, mental health, dental and social services for the greater special care community and the HIV-population in North Carolina

<https://www.urmc.rochester.edu/dentistry.aspx>

## 1 Fixed Dental Clinic & 1 School-Based Clinic



- General and Cosmetic Dentistry
- Pediatric Dentistry
- Dental Implants
- Oral and Maxillofacial Surgery
- Periodontics
- Orthodontics
- Urgent Care

## 4 SMILEmobile Vans Care Delivered at 18 Sites



- X-rays
- Cleanings
- Fluoride Treatments
- Sealants
- Restorations
- Crowns
- Extractions

# 7,488 Visits Completed Annually by SMILEmobile Vans

### Various Travel Sites

Elementary Schools

Nursing Homes

Surrounding Communities



### Child-Focused

Serve underinsured and uninsured school children



**15** Rochester City Schools  
**3** Head Start Programs

### Accessible Care

**1** Wheelchair-accessible van



Equipped to serve patients with disabilities and special needs

## 1905

The original Rochester Dental Dispensary that now constitutes Eastman Institute for Oral Health was founded to improve the oral health of local children

## 1967

Eastman Dental established the first mobile dental van in New York State

## 2019

The SMILEmobile vans have helped more than 39,488 children access much needed oral health preventive and restorative services

For more than **50 years**, Eastman Dental's **SMILEmobiles** have been providing dental treatment to those who otherwise would not receive care.



## Problem:

- Eastman Institute for Oral Health recognized the need for oral health services in the urban neighborhoods and rural areas of Rochester, NY, where poverty is endemic
- The community was also concerned about the need to improve social and health equity among children to improve graduation rates

## Solution/Workforce Strategy:

- The SMILEmobile program serves underinsured and uninsured children by visiting schools to eliminate the need for parents to miss work or for children to miss school for a dental visit
  - Coordination for services begins ahead of van arrival with the delivery of consent forms at the school; services begin 2 months later for students with returned signed consent forms
- The program is highly organized; units are moved over the weekend to the next designated location, then remain in place for 4 to 5 weeks at each location
  - Each unit is staffed with a dentist, dental hygienist, dental assistant, and a clinical coordinator

## Facilitators:

- Eastman Institute for Oral Health's Division of Community Dentistry oversees the mobile program
  - The division is staffed by 21 faculty several of whom are active providers in the mobile program or in the school-based dental clinic
- Eastman Institute for Oral Health has more than 150 associated dentists including approximately 90 full and part-time licensed dentists and 133 dental residents completing training in either general or specialty dentistry who provide services to patients
- Electronic dental record software is regularly used to chart encounters with each student; software available in the mobile vans can store and enable viewing of x-ray images acquired during the visits

## Barriers:

- The SMILEmobile program is in high demand and has a waiting list of schools that have requested services
  - The units are only able to visit a school once a year due to high demand in the Rochester community
- The program has struggled with financial viability due to its heavy reliance on revenue from Medicaid reimbursement for services

## Benefits:

- Regular, accessible, affordable and convenient dental services allow children to maintain good oral health and prevent needless pain, suffering and health care expenses because of poverty or geographic isolation
- SMILEmobiles have a profound effect on missed school time, with most schools experiencing a 10-fold decrease in absenteeism due to dental problems
  - Participating schools also report increased school performance of their students



## 2 School-Based Dental Clinics



### EPOD: Education & Prevention of Oral Disease

- Preventive Screenings & Education
- Dental Cleanings
- Protective Sealants
- Fluoride Varnish
- Case Management & Care Navigation

### The Nevada Women's Philanthropy (NWP) Dental Wellness Center

- Comprehensive Exams From a Dentist
- Restorative Treatment
- Fillings and Extractions
- Hygiene Services
- Referrals and Care Navigation to Specialized Dentists in the Community

## 62 Schools Receive Portable Dental Services



- Preventive Oral Health Services
- Mobile School Sealant Program
- Case Management and Care Navigation
- Las Vegas Metropolitan Area

# 6,500 Children Served Annually by the Fixed Clinics and Portable Delivery



**1 EPOD**  
Serves any family in the school community



**1 Restorative Center**



**10-20%**  
Students utilize the Mobile School Sealant Program each year



**45%**  
Uninsured children



Hispanic/Latino



**45,000**  
Children receive oral health education



**38%**  
Medicaid enrolled children



Black/African American



Urban/Suburban Communities

**2,300**

Children identified needing case management services in 2018 school year



White or Asian

## 2009

Future Smiles was established to provide vital preventive oral health care to vulnerable children throughout Nevada

## 2011

Future Smiles began offering mobile and portable dental services

## 2019

Future Smiles is Southern Nevada's largest school-based preventive and restorative dental health program



### **Problem:**

- Future Smiles is determined to end oral pain and suffering among Nevada’s neediest children by partnering with the community to deliver essential preventive, educational and restorative services
- Approximately 39% of patients were identified as needing intensive case management services usually related to treatment needs

### **Solution/Workforce Strategy:**

- Future Smiles provides school-based care to underserved children through fixed clinics and mobile dental services
- Case managers work with parents, Communities in Schools (CIS) coordinators, school nurses, social workers, and school administrators to ensure that children receive dental treatment, especially when the need is urgent or emergent

### **Facilitators:**

- Future Smiles has a “no cost” lease arrangement with the school district for the fixed clinics whereby the district provides the water, electricity, and maintenance for in-kind dental hygiene services
- Future Smiles is primarily supported with grant funding from a variety of foundations
  - Only a small portion of revenue is obtained through Medicaid reimbursement

### **Barriers:**

- Parents sometimes neglect to re-enroll their children annually in Medicaid as required, so children become ineligible for Medicaid dental services

### **Benefits:**

- The value of Future Smile’s services is generally recognized in the local communities, schools, and by local dental professionals
- Future Smiles has developed a dependable referral network for students with treatment needs



Health Promotion Specialists  
<https://www.hps-sc.com/about/>

## Mobile Services in 46 School Districts



- Carries Risk Assessments
- Dental Sealants
- Fluoride Varnish Application
- Prophylaxis
- Education
- Atraumatic Restorations

## 17 Dental Hygienists



- 1-2 Dental Hygienists Per School
- All Needed Equipment Transported by Dental Hygienist in Personal Car

## 23,000 Students Receive Services Annually



Grades K-12

# >50%

In over half of the school districts in South Carolina



No cost to the school district



Available to all children with a parent's permission



Program emphasizes prevention and education



Most children Medicaid eligible



Common electronic dental record

# 2000

HPS opened in 2000 to address oral health needs of children

# 2003

Partnered with South Carolina's Department of Health and Environmental Control

# 2019

HPS is serving more than 20,000 children in schools throughout the state

**Health Promotion Specialists** has been providing dental care in schools for almost **2 decades**.





### **Problem:**

- Many children in these school districts have significant oral health needs; some students have never seen a dentist
- School-based health centers are rare so health and oral health services must be provided in a mobile/portable format

### **Solution/Workforce Strategy:**

- Health Promotion Specialists (HPS) partners with South Carolina school districts to provide preventive education and oral health services to children
- HPS is staffed by dental hygienists who provide oral health services to approximately 23,000 students per year
  - Each school is visited at 6 to 9 month intervals
  - Children are referred for additional services to local dentists
- HPS also works with the local resources within the community and participates in community activities to promote oral health

### **Facilitators:**

- School nurses and administrative staff work to obtain parental permission for students to receive services from the dental hygienists
- The dental hygienists' presence in schools is now routine and children are receptive to receiving services at school
- HPS employs experienced dental hygienists and there is little turnover of staff

### **Barriers:**

- Patient flow must be managed in such a way as to maximize efficiency while not disrupting student's attendance of core classes
- The space allotted in schools for HPS depends greatly on availability and day of the week requiring the dental hygienists to be flexible and agreeable to the school's arrangement

### **Benefits:**

- With a focus on prevention, HPS provides age-appropriate oral health education (including tobacco and nutrition counseling) in classrooms and to individual students
- Each student patient is given a report describing the preventive services provided and recommended treatment with an attached list of provider options
- Parents are notified of urgent problems and school staff and the dental hygienists conduct follow-up of students requiring treatment
- HPS has established a foundation to help pay for specialty services that parents can't afford



## 10 Health Care Clinics



- Medical, Dental, & Behavioral Health
- Optometry Services
- Nutrition Therapy
- Pharmacy
- Women's Health
- Pediatrics

## 5 Health and Dental Vans



- Dental Cleanings
- Fillings
- Dental Screenings
- Tooth Extractions
- Sealants
- Behavioral Health Services
- Immunizations
- Minor Illness/Injury
- Physical Exams
- X-rays
- Asthma Clinic
- Eye Exams & Glasses



**28**  
school  
districts

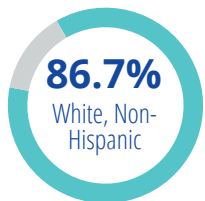
served in **7 counties**  
across Southwest, Missouri



**2**  
children's  
homes

receive dental services  
from the mobile vans

## 66,291 Patients Served by the Clinics



## 2003

Jordan Valley Community Health Center (JVCHC) opened its first clinic in January 2003

## 2010

Mobile health services began in 2010 to provide services to the local communities with limited access to services

## 2019

The health center now has more than 600 employees working in its affiliated health centers and mobile programs

**Problem:**

- Despite extraordinary management, community outreach, accepting walk-ins, and other efforts, poor oral health is prevalent in the area served by Jordan Valley Community Health Center (JVCHC)
- The need for dental services and oral surgery is high and referrals are frequent, particularly among school aged children

**Solution/Workforce Strategy:**

- An outreach effort directed toward temporary workers at a local entertainment venue identified the opportunity to provide services using a dental mobile unit
- The dental mobile units, each of which contain 2 operatories, are staffed by a dentist and 2 dental assistants allowing for comprehensive dental services
- The 2 dental mobile units serve children in the Springfield school district and children in a 7-county area encompassing 28 school districts and 2 children’s homes
  - The dental mobile units provide services 4 days per week, up to 10 hours per day

**Facilitator:**

- Community collaborations with various organizations have resulted in generous donations and grant funding sources which have partially funded the dental mobile units
- The recent addition of community health workers to JVCHC has addressed some of the access barriers that children were facing in the schools (ie, obtaining parental permission slips from a child’s home)

**Barriers:**

- Some schools are located in rural areas with limited internet connectivity making it necessary to maintain paper records until the dental treatment plan is complete and records can be entered into the main electronic dental record
- High demand for dental services in numerous school communities allows for only one visit to each school per year rather than making return visits on a periodic basis

**Benefits:**

- JVCHC’s mobile dental units provide dental screenings and services to the 87% of children in the catchment area that lack access to a brick and mortar dental clinic
- The dental mobile units are considered integral to JVCHC because they not only provide medical and dental services, but also provide outreach to surrounding communities with underserved populations lacking access to services
- Parents are notified of urgent problems and school staff, dental providers, and community health workers conduct follow-up with students requiring treatment

# Northeast Mobile Dental Services

## The Edgewood Centre Case Study

 Bedford, NH

**75** Skilled Nursing Facilities Served



**3 State Catchment Area**

New York  
Vermont  
New Hampshire

**12** Dentists  
**3** Dental Hygienists



**Stationary & Portable Dental Services**



Some nursing homes have fixed dental chairs; in others providers use portable equipment or provide care bedside

### Patients Served



Medically complex older adults



Financing varies by facility  
Some capitation  
Some insurance

### Residents Served at the Edgewood Centre

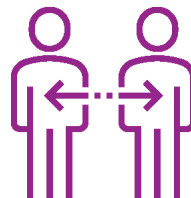
A family-owned, 112-bed skilled nursing facility in Portsmouth, NH



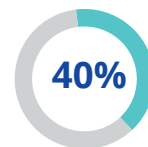
**100** Long-term care beds  
**12** Rehabilitation beds



Each patient seen every 3-4 months



Care is integrated  
Ongoing interactions with medical and nursing staff



40% Privately Insured



50% Medicaid



10% Medicare

**1987**

Northeast Mobile Dental Service was originally formed over 30 years ago to serve nursing home residents in 3 nursing homes in New York

**2019**

Northeast Mobile Dental Service is focused on an integrated, team-based approach to care for their patients

# Northeast Mobile Dental Services

## The Edgewood Centre Case Study

 Bedford, NH

### Problem:

- Progressive dementia may diminish the importance of routine oral health care and increase resistance to routine oral hygiene leading to more complex cases in skilled nursing facilities
- The increasing medical complexity and cognitive impairments of nursing home residents have shifted services to an emphasis on therapeutic, restorative, and palliative care
  - Dental procedures may be limited to only palliative or comfort care as cosmetic procedures and extensive interventions may not be appropriate for some patients

### Solution/Workforce Strategy:

- The Edgewood Centre in New Hampshire is committed to providing comprehensive health services including routine oral health care; Edgewood contracted with Northeast Mobile Dental Services to provide these services to maintain functional ability and independence for residents
- To accommodate the contracting relationship, the Northeast Mobile Dental Services dentist and dental hygienist rotate coverage on alternate weeks to provide routine preventive, treatment, and emergent dental services

### Facilitators:

- Edgewood's direct care and nursing staff are educated to help residents with oral hygiene
  - Staff is given tools and strategies to support oral health needs, particularly for residents with complex needs and conditions
  - Dental staff have a shared philosophy about oral health care across the life span, particularly for geriatric patients
- Skilled nursing facility owners and administrators are committed to providing comprehensive health and dental services for facility residents

### Barriers:

- Employing dental hygienists has been a challenge due to various regulations and reimbursement methodologies across states
- Turnover of nursing home direct care staff leads to the need for ongoing oral health staff training at the facility
- Federal regulations and funding limits often result in elders receiving services only for emergent or acute dental problems

### Benefits:

- The culture of oral health present in the Edgewood Centre can be attributed to the administration's and staff's commitment to the health of its residents
- Patients and staff are accustomed to the presence of the dentist and dental hygienist who integrate oral hygiene into daily routines

## 9 Dental Vans



- Each equipped with 2 dental operatories
- All have on-board generators
- 5 equipped for wheelchair access
- Each clinical team consists of 1 lead dentist, 1 staff dentist, 1 dental hygienist, and 4 dental assistants

Serves **96** Elementary Schools

**5** Counties

**6** Central Texas School Districts

### Dental Services Provided

- X-Rays
- Cleanings
- Fluoride Applications

- Extractions
- Fillings



## Over 11,000 Patients Served



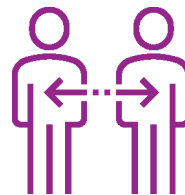
Primarily K-5th Grade



All Services Provided Free of Charge



Education & Outreach to Increase Oral Health Literacy in the Community



Complex Care Case Management (Referrals to Community Providers)

## 1996

St. David's Foundation was founded

The foundation is unique; it is both a grantor organization and a provider of dental services

## 1999

St. David's Foundation joined with the city of Austin & the Capital Area Dental Society to improve access to preventive dental services for school children

## 2002

By 2002, the mobile program was managed and operated solely by St. David's

## 2019

The mobile program has grown over time to its current fleet of 9 fully equipped vans designed to better tailor space, functionality, and flow for service delivery

The main goal of the mobile dental program is to **treat vulnerable children and link them to a dental home** in their local community.



### Problem:

- The recent economic prosperity in Austin has had an adverse impact on vulnerable communities as neighborhoods gentrify and housing becomes unaffordable thus expanding the catchment area needing dental services
- The mobile dental program constantly reviews community needs assessment data to ensure that the most economically disadvantaged schools are prioritized for mobile dental program visits
- Approximately 250 children treated annually by the mobile services also require complex care services
- The needs among children are extensive; therefore, the mobile dental vans are not able to visit all 96 schools every year

### Solution/Workforce Strategy:

- Mobile dental vans are an ideal service delivery mechanism in a dynamic urban environment like Austin and the surrounding counties
- The Foundation has 40 community-partner pediatric dentists and specialists who've agreed to treat children with complex care needs referred from the mobile dental program
- Twenty schools in the highest need communities are scheduled every year for visits by the mobile van while the remainder are visited on a rotating basis
- Permission slips for dental services are distributed 4 weeks before the mobile dental program is scheduled to arrive
- Dental screenings are performed prior to the arrival of the mobile van to determine which children need preventive and/or restorative services

### Facilitators:

- All services are provided free of charge
- The Foundation also subsidizes complex dental care at 50% of the cost
- The Foundation executes a Data Sharing Agreement and Memorandum of Understanding (MOU) with each school district describing respective roles and responsibilities
- Staff use the Foundation's custom-built dental management software program to identify children with the most urgent treatment needs and prioritize services (Open Dental software is used for the universal electronic dental record)
- The mobile dental vans provide services during the summer adjacent to an FQHC's medical clinic to provide dental services to their patients
- The staff turnover rate has been reduced from about 33% a decade ago to 3% annually

### Barriers:

- There is about a 20% no show rate for families who make after school appointments largely related to transportation issues
- Due to the erratic nature of the internet in some rural locations, patient data is sometimes compiled on paper at the point of service and later added to the electronic files

### Benefits:

- Approximately 77% of children in participating schools (K-5th grade) receive a dental screening each year
- The mobile dental program served more than 11,000 children at 68 elementary schools during the 2016-17 school year
- Program staff screen approximately 30,000 children each year, about one-third of whom eventually receive a dental service



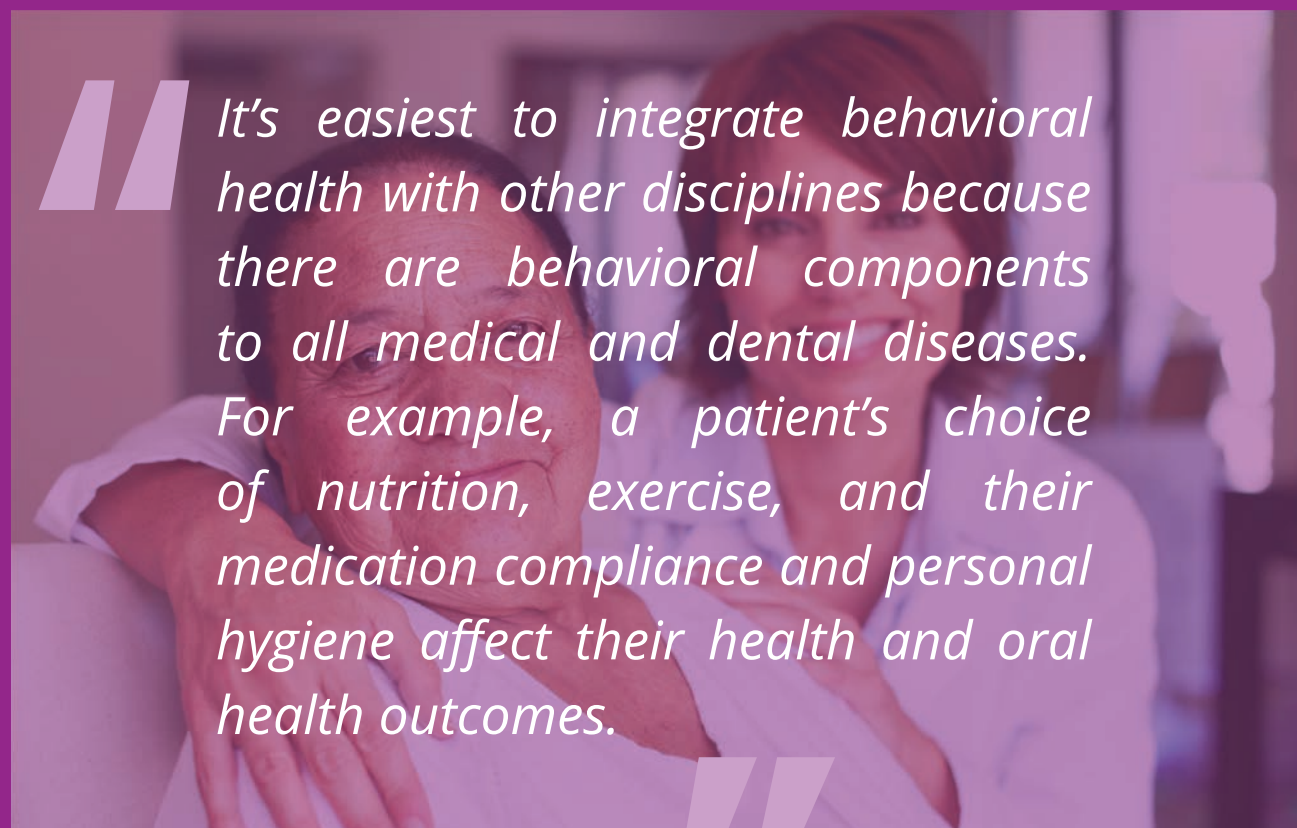
# INTEGRATION OF PRIMARY CARE, ORAL HEALTH & BEHAVIORAL HEALTH

The systemic linkages between oral, physical, and mental health are receiving special attention in peer-reviewed literature discussing the importance of and necessity for service integration. Recent research confirms a link between poor oral health and poor mental health, partly due to lifestyle choices among those with severe mental illness.<sup>2</sup> People with mental health challenges find day-to-day oral self-care more difficult. Those with severe depression or schizophrenia may find basic oral care nearly impossible. Furthermore, many medications used to treat mental health problems cause xerostomia (dry mouth), which tends to exacerbate oral conditions.

Many of those with persistent mental illness or substance use disorders are served through safety net provider systems, especially FQHCs. A comprehensive/inclusive health home with access to behavioral, oral, and primary health care services is likely predictive of better health management and improved health outcomes over the long term, especially for those with mental illness or other chronic diseases.

Benchmark programs from the following 6 FQHCs that integrate oral and mental/behavioral health with primary care services were selected for inclusion in the compendium:

- Albuquerque Health Care for the Homeless, Albuquerque, NM
- Colorado Coalition for the Homeless, Denver, CO
- Compass Health Network, Clinton, MO
- Health Partners of Western Ohio, Lima, OH
- Hudson River Health Care Inc./Brightpoint Health, New York, NY
- Whitman-Walker Health, Washington, DC



*It's easiest to integrate behavioral health with other disciplines because there are behavioral components to all medical and dental diseases. For example, a patient's choice of nutrition, exercise, and their medication compliance and personal hygiene affect their health and oral health outcomes.*

For more information on integration of oral and behavioral health with primary care, see the full report: ***Case Studies of 6 Safety Net Organizations That Integrate Oral and Mental/Behavioral Health With Primary Care Services.***



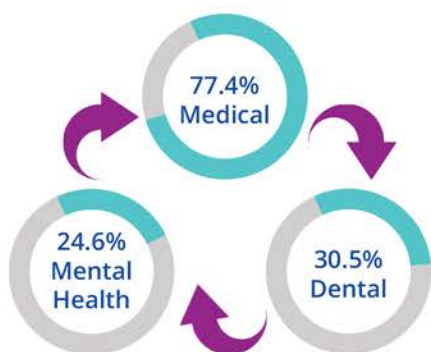
### Patient Centered Medical Home with Embedded Dental Clinic



Medical  
Dental  
Behavioral Health  
Outreach & Harm Reduction  
Pharmacy  
Case Management  
Permanent Supportive Housing



Emergency Care  
Preventive Care  
Comprehensive Care  
X-rays  
Crowns  
Fillings  
Root Canals  
Extractions  
Dentures  
Walk-In Services



In 2017, **Intensive Social Services** Provided to **373** Patients in **4,808** Encounters

### Processes Fostering Integration

- ✓ Staff Training
- ✓ Patient Engagement
- ✓ Addressing Social Determinants of Health
- ✓ Electronic Health Record (EHR)
- ✓ No Wrong Door Approach
- ✓ Person-Centered

## 4,176 Patients Served



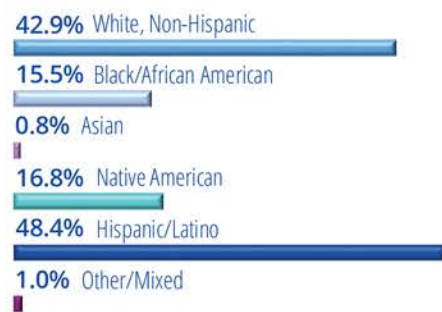
1.7% Children (<18 Years)



92.0% Adults



6.3% Older Adults (>65 Years)



Metropolitan



99.6% At/Below 200% Federal Poverty Level



53.5% Medicaid/CHIP  
38.4% Uninsured

## 1985

Albuquerque Health Care for the Homeless was founded in 1985 to provide services to the homeless in Albuquerque

## 2000

As resources permitted, other health care services were gradually introduced; these were eventually consolidated and co-located in a central health clinic site beginning in 2000

## 2019

Albuquerque Health Care for the Homeless is a certified FQHC with PCMH recognition

Integrated medical, dental, behavioral health, and pharmacy services are further supported by other services specific to the homeless including permanent supportive housing and referrals for food and clothing





### **Problem:**

- Homeless populations present with a higher medical complexity from multiple comorbidities, chronicity, and the ongoing use of emergency departments as the source of care
  - Many homeless are forced into poor decisions about health care
- In addition to medical, dental, and behavioral health concerns, the constellation of issues include poor nutrition, dangerous environments, weather exposure, sleep deprivation, poverty, criminalization, isolation, and lack of health and dental insurance

### **Solution/Workforce Strategy:**

- The Albuquerque Health Care for the Homeless (AHCH) continuum of integrated services model enables access to services in multiple ways
  - Supportive outreach, creating low-demand entry settings, offering comprehensive site-based services mindful of choice, dignity, and respect
- To meet the specialized needs of patients, AHCH provides services based on the health care for the homeless (HCH) model of care
- Trauma-informed care is employed to address challenges to overcoming anxiety and patient engagement with health services
- A crisis intervention team addresses emergent issues related to patient volatility
- Cross-disciplinary care is central to clinical and support staff working with the homeless population and their complex needs
- Both formal and informal efforts at integration pervade the organizational workforce such as inquiring about patient needs for other services and creating a “warm handoff” to behavioral health and dental professionals

### **Facilitators:**

- A high level of integrated medical, oral, and behavioral health care is attributable, in part, to the early introduction of dentistry into the mix of clinical services provided
- Dental clinic walk-in appointments are particularly important for this population due to only intermittent means of transportation and other competing service needs such as shelter, food, and housing
- An integrated electronic health record system houses an organization-wide treatment plan for each individual and is continuously updated by providers from all disciplines to manage patient care and ensure quality performance measurement

### **Barriers:**

- Retention of staff is an ongoing challenge given provider shortages, competing salaries, and potential burn out
  - AHCH works to recruit mission driven staff at competitive salaries
- The predominance of mental illnesses and co-occurring medical conditions leads to a greater likelihood of oral health neglect and subsequent oral disease onset

### **Benefits:**

- AHCH clients are beneficiaries of a full range of clinical, social, and community-based services through AHCH’s health and resource centers
- Dental professionals work effectively in the integrated environment and assist with patient monitoring and referrals
- The dental clinic is able to provide a range of services for patients such that nearly 30% complete their dental treatment plan (an impressively high rate for this transient population)
- Patients exhibit high rates of treatment plan completion and repeat dental visits



## 7 Primary Care Clinics



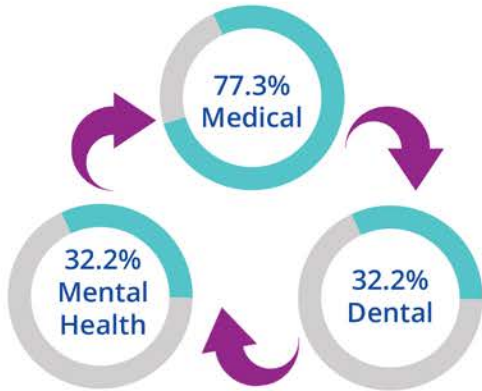
- Medical
- Dental
- Behavioral Health
- Vision Care
- Pharmacy Services
- Substance Use Treatment Services
- Social Services
- Supportive Housing
- Outreach

## 2 Dental Clinics



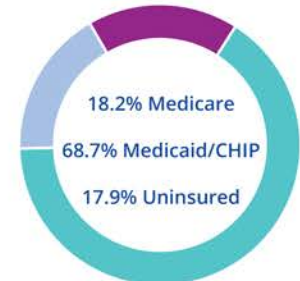
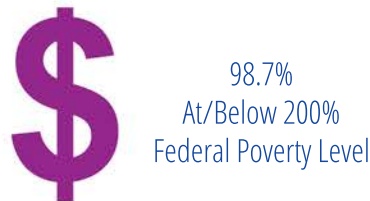
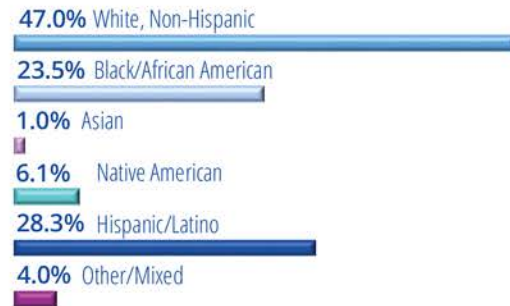
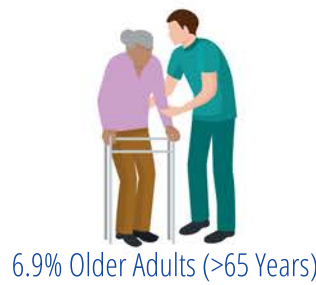
- Emergency Care
- Preventive Care
- Comprehensive Care
- X-rays
- Crowns
- Fillings
- Root Canals
- Extractions
- Dentures
- Walk-In Services

### Processes Fostering Integration



- ✓ Staff Training
- ✓ Formal/Informal Communication Processes
- ✓ Patient Engagement
- ✓ Electronic Health Record (EHR)

## 14,154 Patients Served



## 1984

The original Stout Street clinic was established to act on behalf of those experiencing homelessness in Colorado

## 2015

The current Stout Street Health Center opened in 2015 to replace the aging structure

The new center provided expanded capacity to effectively meet the needs of the growing homeless population

## 2019

The Stout Street clinic is an FQHC that provides a full range of integrated care to homeless patients

CCH staff includes medical and behavioral health clinicians, dental providers, pharmacists, nurses, ophthalmologist, peer navigators & outreach workers

### **Problem:**

- Individuals experiencing the complex and multifactorial problem of homelessness are subject to significant and enduring environmental stress, compromised nutrition, and deteriorating physical, mental, and dental health from living on the streets
- The homelessness crisis emphasizes the need to address health care issues in conjunction with housing to improve outcomes

### **Solution/Workforce Strategy:**

- Providers need to be interdependent as the team works toward the interest of the patient
  - Behavioral health integrates well with other disciplines because there are behavioral components to medical and dental health
- New patients usually begin primary care or dental health services and behavioral health patients are strongly encouraged to become primary care patients at the clinic
- Colorado Coalition for the Homeless (CCH) fully incorporates patient-centered, trauma-informed medical and behavioral health care, substance use treatment services, dental and vision care, social services and supportive housing to more fully address the spectrum of problems experienced by homeless adults and children
- Providers in various disciplines effect warm handoff referrals for patients as needed
  - The behavioral health, primary care, and dental staff are often able to see patients on the same day, and nurses triage and navigate patients according to need
- The CCH dental clinic provides comprehensive and emergency services to families and individuals experiencing homelessness regardless of insurance coverage
- Access is enhanced by providing a monthly pediatrics night where families with children can access dental services as well as primary care, eye exams, and fun activities for kids

### **Facilitators:**

- The Stout Street Health Center is located in proximity to a large complex of residential units owned and operated by CCH and is near public transportation and other services and shelters for homeless individuals
- Community outreach efforts are targeted to three priority groups for case management (children, pregnant women, and individuals with diabetes)
- CCH engages with other providers and municipal agencies in Denver to increase the collective impact of services

### **Barriers:**

- Efforts to integrate must be ongoing and flexible to adjust to a dynamic system of care with many regulatory and structural barriers to innovation

### **Benefits:**

- Dental staff is actively involved in efforts to integrate services
  - Perform risk assessment on all patients and discuss self-care, family risk, weight status, and A1C testing for diabetes
  - Assess tobacco risk and provide appropriate counseling and education
- The provision of dental services attracts new patients to the health center because these services are difficult to find in the Denver area for people insured by Medicaid



## 10 Primary Care Clinics



Medical  
Dental  
Behavioral Health  
Pediatrics  
Substance Use Treatment Services

## 10 Dental Clinics

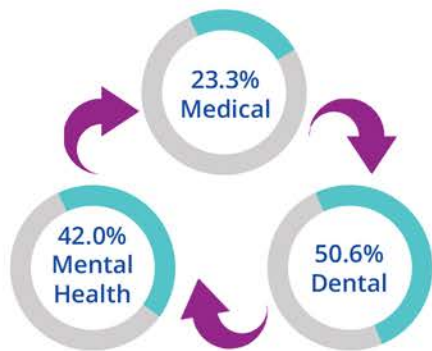


Dental Exams & Cleanings  
Urgent Care Visits  
X-Rays  
Dentures & Partials  
Flouride Treatments  
Routine Extractions  
Fillings  
Sealants  
Crowns & Bridges

## 20+ Clinics



Offering Behavioral Health/  
Substance Use Treatment  
Services



### Processes Fostering Integration



Patient Engagement



Electronic Health Record (EHR)



Engagement With Larger Community

## 41,893 Patients Served



42.6% Children (<18 Years)



52.9% Adults



4.6% Older Adults (>65 Years)



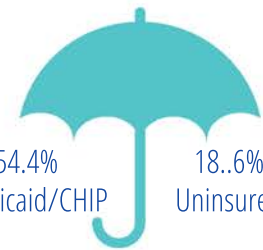
Non Hispanic Whites



Metropolitan/  
Rural



95.7%  
At/Below 200%  
Federal Poverty Level



54.4% Medicaid/CHIP  
18.6% Uninsured

## 1979

Crider Health founded  
Together with Pathways Community  
Health, Crider provided behavioral  
health services

## 2007

Crider Health received  
FQHC status

## 2014

Pathways Community Health  
achieved FQHC status and merged  
with Crider to become Compass  
Health Network

## 2019

CHN takes a person-centered,  
integrated approach to patient  
care that focuses on treating  
the whole person

### **Problem:**

- Many of the network's patients access multiple health care services
- The demand for dental services is so high that CHN is constantly working on ways to improve access
- Because of the high number of behavioral health patients, dentists must consider premedication needs, sedation techniques, the need for special interventions, and the need to communicate closely with other providers to minimize patient risk and avoid trauma

### **Solution/Workforce Strategy:**

- CHN is one of 67 organizations in 8 states participating in a SAMSHA national demonstration to expand access to community-based substance use and mental health services, advance integration with primary health care, and provide care coordination for patients
- The demonstration reinforced existing organizational efforts to integrate care including consultations with other providers on needed medical or dental interventions
- Support for care integration also came from the Missouri Medicaid's CSTAR program which uses a continuum-of-care approach to mental health and substance use treatment
- Managed care companies in Missouri supported a pilot program using case management and other services to expand CHN services to high-risk patients
- The FQHC is one of the largest providers of telebehavioral health services in the US

### **Facilitators:**

- CHN providers in all disciplines are aware of the importance of integration
  - Ongoing education and training supports integration efforts
- Dentists attend to patients' health histories, current medications, and blood pressure and the importance of effecting referrals to other clinical providers
- Efforts at integration include medical providers screening for behavioral health and oral health conditions
  - Warm handoffs are common
  - Open communication channels span CHN
- The integrated electronic health record is crucial to patient management
  - CHN is converting its EHR to a system that will integrate seamlessly with Dentrix software for dental care

### **Barriers:**

- Dental care was noted as being more difficult to integrate with other disciplines
  - Efforts made to reduce barriers such as joint meetings and educational efforts across disciplines
- Few adults qualify for Medicaid in Missouri so many of the dental services are provided to children
- Very few dental providers in local communities will serve publicly insured patients

### **Benefits:**

- The dental service portion of the CHN comprehensive health home has been very successful
- The dental component is the fastest growing segment of CHN's service portfolio





### 12 Primary Care Health Centers

### with 5 Dental Clinics

### Other

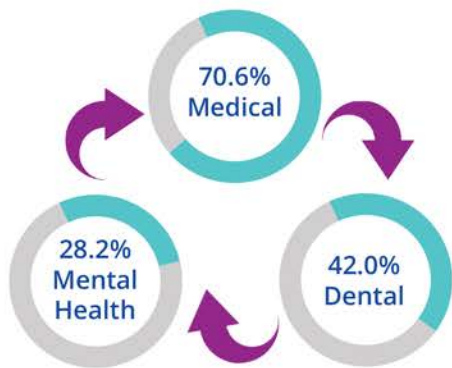


- Medical
- Dental
- Behavioral Health
- Pharmacy Services
- Substance Use Treatment Services
- Social Services



- Dental Exams & Cleanings
- Urgent Care Visits
- X-Rays
- Dentures & Partials
- Flouride Treatments
- Routine Extractions
- Fillings
- Sealants
- Crowns & Bridges

- Quick Care
- 5 School Based Health Centers
- Mobile Services



### Processes Fostering Integration

- ✓ Patient Engagement
- ✓ Formal/Informal Communication
- ✓ Integrated Electronic Health Record (EHR)
- ✓ Staff Training
- ✓ Engagement With Larger Community

## 38,127 Patients Served



38.0% Children (<18 Years)



55.9% Adults



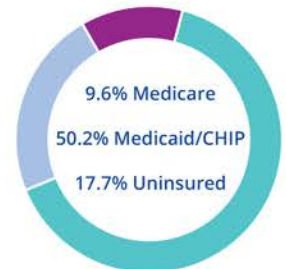
6.1% Older Adults (>65 Years)



Metropolitan/  
Rural



95.6%  
At/Below 200%  
Federal Poverty Level



## 1995

The organization began as a collaboration between the city of Lima and St. Rita's Medical Center

## 2004

Health Partners of Western Ohio (HPWO) obtained FQHC status

## 2006

Services expanded to include dental and behavioral health services

## 2019

HPWO is one of the fastest growing FQHCs in Ohio

Its model of care delivery and efforts at service integration are key to its success





### **Problem:**

- A high percentage of patients are treated for mental health and substance abuse associated with the drug epidemic
- Dental services are in high demand; some have not seen a dentist in a very long time
- Patients have a high level of anxiety related to dental care requiring specialized training for dental staff along with support from behavioral health providers

### **Solution/Workforce Strategy:**

- The clinical staff are configured in teams including dental teams located in the dental clinics of the various health centers
  - Co-location of clinic services is a facilitator to integration that creates an organic path to service delivery
- Dental staff recruitment interviews include a behavioral health component tailored to the center's patient population to better ensure a fit with the organization's mission
- Integration is a HPWO system-wide goal achieved through a concerted effort to meet all individual patient's needs
  - The medical, behavioral health, and dental teams and the pharmacists work together to address substance abuse issues
- Dentists use non-opioid pain relief and refer patients requiring sedation to outside specialists to avoid relapse and complications for certain HPWO patients
- Warm handoffs and communications between disciplines are standard practice
  - Primary care providers and dentists are making concerted efforts to mutually refer patients at high risk and/or with acute needs for treatment and follow-up appointments

### **Facilitators:**

- Nurses and other medical staff provide dental outreach services in the catchment area
- Recruiting clinicians including dentists and hygienists to practice at the health center is not generally problematic and there are seldom professional vacancies
- Dental hygienists are involved in every aspect of care at the health center, making themselves available and seeking opportunities to integrate oral health services particularly for children
- The FQHC has a high HPSA score which qualifies the organization for federal loan repayment opportunities
- The 20% no-show rate for appointments is managed through double booking and allowing for emergent care patients
  - Dental clinics are able to accommodate unscheduled patients

### **Barriers:**

- Some patients need to travel more than 30 minutes to access services at a HPWO health center
- Dental service integration requires a more concerted effort since dental care does not have the same visibility or urgency compared to other treatment needs
- Difficulties have been encountered integrating medical and dental electronic records

### **Benefits:**

- HPWO is able to provide the highest quality of care at the lowest possible cost
- Patients with a poor dental history are followed carefully by both primary medicine and dentistry



## 9 Primary Care Clinics



Medical  
Dental  
Behavioral Health  
Pediatrics  
Women's Health Care  
Substance Use Treatment Services  
Overdose Prevention  
Adult Day Health Care  
Health Home

## 2 Dental Clinics



Dental Cleanings  
Oral Hygiene Education  
Oral Health Screenings  
Dentures  
Extractions  
Low Radiation X-Rays  
Bonding  
Crowns & Bridges

## 12 Other Locations



Behavioral Health  
LGBTQ Services  
Health Home  
Food Pantry



### Processes Fostering Integration

- ✓ Staff Training
- ✓ Formal/Informal Communication Processes
- ✓ Engagement With Larger Community
- ✓ Patient Engagement
- ✓ Electronic Health Record (EHR)

## 24,120 Patients Served



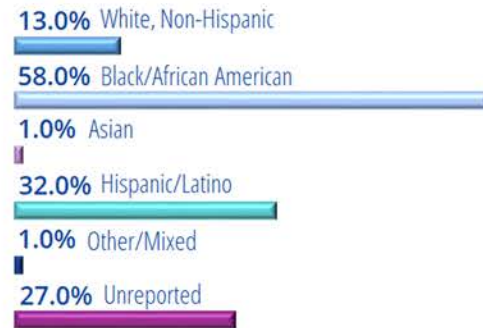
1.0% Children (<18 Years)



91.0% Adults



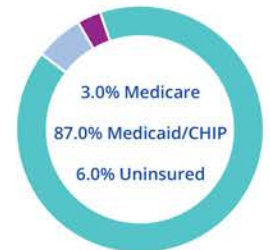
8.0% Older Adults (>65 Years)



Urban



97.1%  
At/Below 200%  
Federal Poverty Level



## 1990

Founded to provide coordinated health services for patients diagnosed with HIV

## 1994

Began providing case management services

## 2012

Designated as an FQHC and a Level 3 Primary Care Medical Home when it opened a behavioral health center in the Bronx

## 2019

Joined Hudson River Health Care  
Designated Health Home in collaboration with the Visiting Nurse Service of NY

Provides health and oral health services to the LGBTQ community

### **Problem:**

- The Inwood Avenue clinic welcomes people with significant life problems and nowhere else to turn
- Seventy percent of patients served are homeless and many have co-occurring medical, behavioral health, and/or substance use disorders
- The growth of the homeless population outpaces efforts to increase the number of low-income housing units and transitional housing for people in crisis

### **Solution/Workforce Strategy:**

- Efforts at integration across medical, dental, and behavioral health include both system-wide processes and individual staff effort facilitated by frequent “warm handoffs” among clinicians and other staff
- A team model is utilized to meet the patient’s total health care needs
  - Dental information is collected as part of the patient health history and dental screenings are common
- Care is delivered on the principles of trauma-informed care mixed with harm reduction strategies
- Complex patients are referred to oral surgeons in the Bronx or to the New York University dental clinic for extensive or involved surgical care

### **Facilitators:**

- Brightpoint is a large FQHC with an extensive cadre of physicians, nurse practitioners, nurses, dentists, dental hygienists and providers in behavioral health specialties
- Brightpoint Health requires new patients to first establish as a primary care patients at one of its affiliated clinics, with the exception of certain patients who are already well served in other networks
- Outreach workers serve on “business development” teams that travel on dedicated vans to shelter organizations in the 5 New York City boroughs to triage patients on a daily basis
- The dental clinic is profitable for the Brightpoint FQHC because dental services are in high demand and patients generally show for appointments

### **Barriers:**

- Mobile outreach efforts are helpful to patients but can create an influx of patients arriving for care rather than at staggered intervals for individual appointments
- An extensive daily list of walk-ins affects wait times for services which may limit the extent of services to triage and palliative care for an unscheduled patient
- Brightpoint purchased and equipped mobile vans for medical and dental services; however, physical and structural barriers in New York City made service delivery very difficult so the mobile vans were retired
- While the electronic patient health record is fully integrated and universally accessible, the dental record is on a different platform with separate templates requiring some notes to be accessed exclusively through the dedicated dental record

### **Benefits:**

- Dental patients at the health centers have high compliance rates for scheduled appointments which are in high demand
  - Dentists treat 13-15 patients each day, with an average of 4 patients per day presenting as walk-ins for emergent care

## 2 Primary Care Clinics



Medical  
 Dental  
 Behavioral Health  
 Transgender Care  
 Pharmacy Services  
 Legal Services

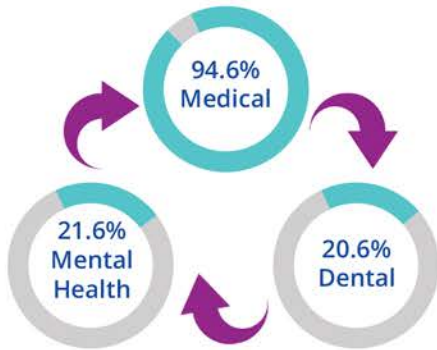
Insurance Navigation  
 Youth & Family Support

## with 2 Dental Clinics



Dental Exams  
 Teeth Cleaning  
 Scaling & Root Planing  
 Orthodontics  
 Prosthodontics  
 Restorative Treatment

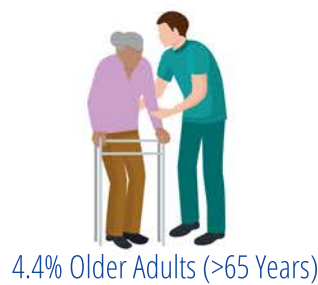
Root Canals  
 Extractions  
 Mouth Guards  
 Teeth Whitening



### Processes Fostering Integration

- ✓ Staff Training
- ✓ Formal/Informal Communication Processes
- ✓ Engagement With Larger Community
- ✓ Patient Engagement
- ✓ Electronic Health Record (EHR)

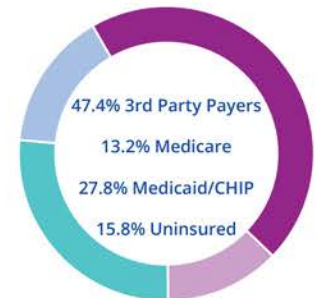
## 12,189 Patients Served



Urban



60.7%  
 At/Below 200%  
 Federal Poverty Level



## 1973

Whitman Walker Health (WWH) was founded in 1973 and incorporated in 1978  
 Began as a medical clinic to serve gay men with STDs, provide peer support and substance use services

## 2005

WWH transitioned from an AIDS service organization to a comprehensive primary care provider

## 2012

Although an FQHC look alike since 2007, WWH became a fully designated FQHC in 2012

## 2019

WWH has been serving the LGBTQ community for over 40 years

### **Problem:**

- With the advent of retroviral therapy, HIV was no longer a fatal disease
  - The care delivery paradigm shifted to chronic disease management providing a comprehensive array of services
- Most health center patients do not have HIV but those that do account for approximately half of all visits to the health centers annually
- Many patients have co-occurring mental health conditions that require expertise in trauma informed care
- The demand for dental services among patients is high

### **Solution/Workforce Strategy:**

- Integration of health care services is a logical approach to service delivery for patient populations with complex and chronic medical conditions
- Behavioral health specialists are embedded on every primary care team
- The path to health services is mainly through primary care providers who effect referrals for dental care, behavioral health, and other services
- Providers routinely effect warm handoffs to the dental clinics and make direct contacts and referrals when urgent dental consultation is required
- Formal communications such as referral systems, clinical progress notes, and medications lists as well as informal exchanges among clinical providers, support staff, and administrators are needed to achieve effective integration

### **Facilitators:**

- New hires spend time during training with dental, pharmacy, and primary care, and behavioral health providers to understand services provided
- Staff commitment to the organizational mission and workforce education and training are components of a successful integrated comprehensive care model for a complex patient population
- Community outreach, scheduling strategies, accommodating walk-ins, and use of a call center are employed to engage patients in care and reduce no-shows
- Because WWH clinical staff are experts on managing viral loads for HIV patients, dentists rarely see major dental issues such as oral cancers related to the infection
- eClinicalWorks EHR is used by providers as a tool for consultation and patient management; Open Dental is the software used for dental care
- Collaborations with other community providers

### **Barriers:**

- Demand for dental services is high in the DC metro area; WWH now requires that new dental patients also be medical patients at the FQHC
- Annual staff turnover is around 24% which causes a loss of continuity of care
- Compliance with treatment protocols is especially important for those diagnosed with HIV

### **Benefits:**

- Using primary care as the integration hub to other services is the best course to manage and monitor patient well-being





## REFERENCES

1. Ballweg R, Berg J, DeRouen T, Fiste L, Mouradian W, Somerman MJ. Expanding dental education partnerships beyond the four walls. *J Dent Educ*. 2011;75(3):300-309.
2. Doyle PE, Longley AJ, Brown PS. Dental-mental connection. *Dimens Dent Hyg*. 2012;10(11):19-20, 22.

COMPENDIUM CONTENT WAS EXTRACTED FROM THE FOLLOWING OHWRC REPORTS:

Langelier M, Moore J, Baker BK, Mertz E. *Case Studies of 8 Federally Qualified Health Centers: Strategies to Integrate Oral Health with Primary Care*. Rensselaer, NY: Center for Health Workforce Studies, School of Public Health, SUNY Albany; September 2015.

Langelier M, Rodat C, 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.

Langelier M, Moore J, Carter R, Boyd L, Rodat C. *An Assessment of Mobile and Portable 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.

Langelier M, Surdu S, Goodwin N. *Case Studies of 6 Safety Net Organizations That Integrate Oral and Mental/ Behavioral Health With Primary Care Services*. Rensselaer, NY: Center for Health Workforce Studies, School of Public Health, SUNY Albany; February 2019.

The above reports can be accessed on the OHWRC website at [www.oralhealthworkforce.org/reports](http://www.oralhealthworkforce.org/reports)



*Many clinicians learn more about the importance of integration on the clinic floor during practice with patients than they do from formal didactic training. The complexity of many patients' medical, mental, and dental needs supports the importance of effecting service integration to achieve improved health outcomes.*





## About the Authors

---



### Leanne Keough

*Communications Director, Oral Health Workforce Research Center*

As communications director of OHWRC, Ms. Keough assists in the development of all written and visual collateral produced by OHWRC to ensure a high level of quality and alignment with brand standards. She primarily focuses on graphic design and manages public relations and promotion. Other responsibilities include integrated marketing, overall branding strategy, and maintenance of the OHWRC website.



### Morgan Clifford

*Project Coordinator, Center for Health Workforce Studies*

As a project coordinator, Ms. Clifford assisted with the daily operations as well as ongoing projects of CHWS. Among other activities, she coordinated research alerts and dissemination strategy, provided assistance during webinars, and contributed to the content management and maintenance of the CHWS website. Ms. Clifford also assisted the Communication Director with graphic design as needed.



### Margaret Langelier, MSHSA

*Co-Deputy Director, Oral Health Workforce Research Center*

Ms. Langelier assists the Director in preparation of all research projects and reports and in the OHWRC's dissemination activities. Ms. Langelier has served as a project manager at the Center for Health Workforce Studies (CHWS) for 2 decades, where she has been responsible for supervising staff and coordinating of all aspects of project workflow. During her tenure, Ms. Langelier has been the principal investigator on numerous research projects about the allied health and oral health workforce.



### Nubia Goodwin, MPH

*Research Support Specialist, Center for Health Workforce Studies*

Ms. Goodwin specialized in qualitative/quantitative research (project design, data collection, conducting focus groups/interviews), project management, and teaching/tutoring. She holds a BA in Spanish Linguistics and Literature and Global Studies, and a Masters in Public Health from The School of Public Health at SUNY Albany.

### Tom Melnik, PhD

*Research Associate, Oral Health Workforce Research Center*

Mr. Melnik specialized in qualitative research and assisted the co-deputy directors with technical writing for OHWRC reports.

