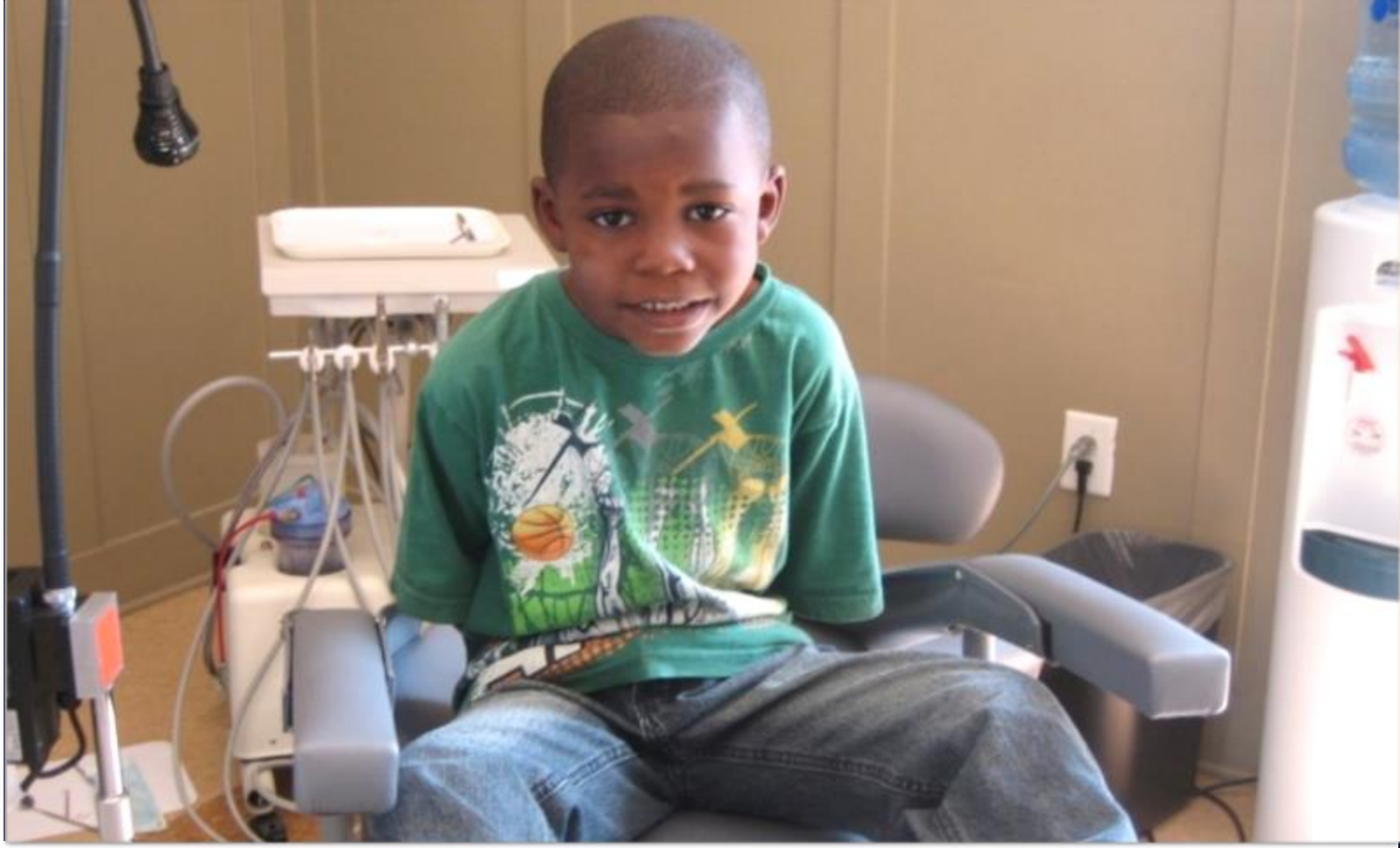
Children's Dental Services

WORK FORCE MODELS FOR SCHOOL-BASED CARE

Sarah Wovcha, JD, MPH, Executive Director

Minneapolis, MN



Children's Dental Services

Mission: Since 1919 Children's Dental Services is dedicated to improving the oral health of children from families with low incomes by providing accessible treatment and education to our diverse community.

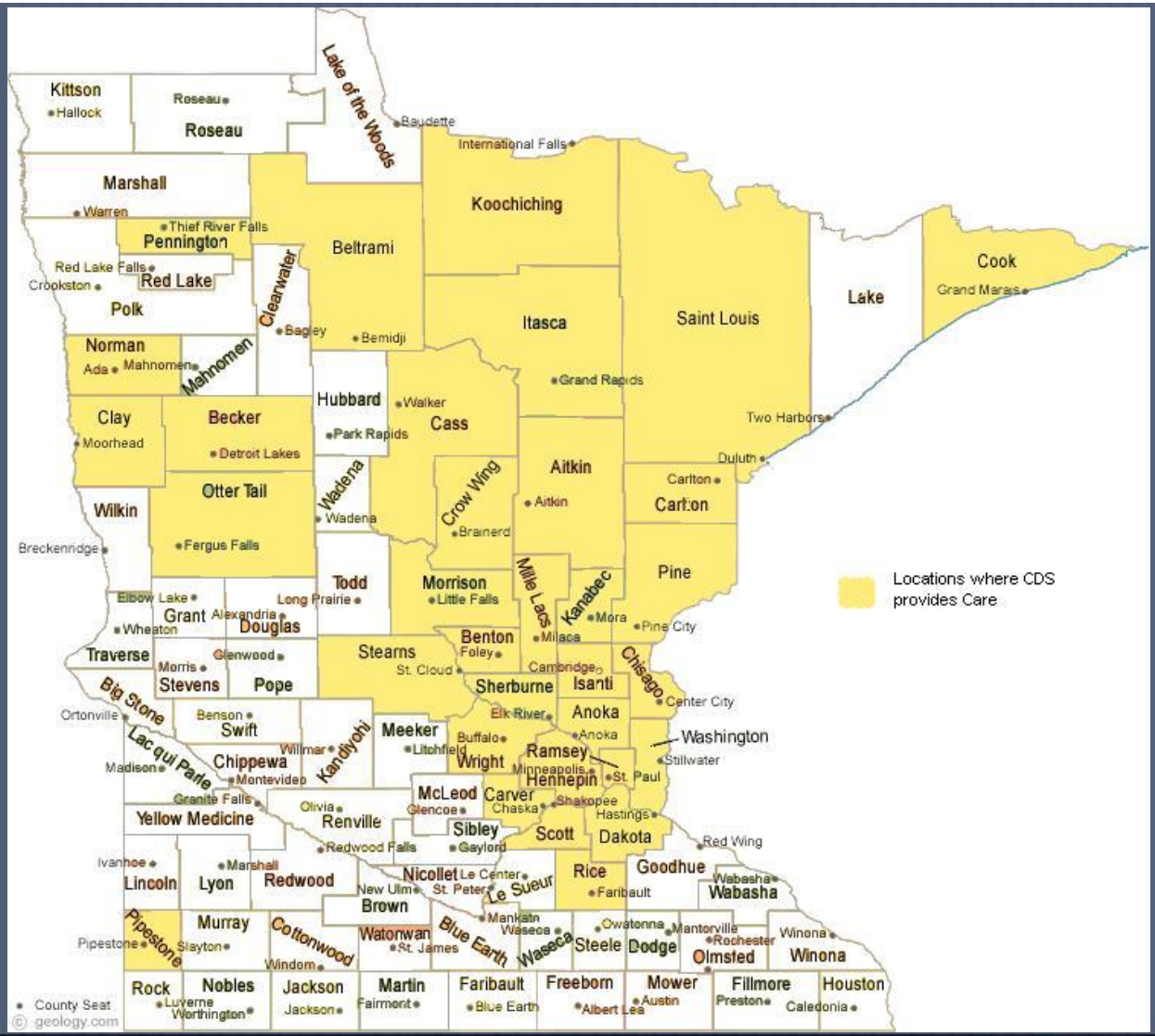
Children's Dental Services History

- Grew out of 1919 Minneapolis charitable women's organization to serve destitute orphans when health safety nets were non-existent.
- First in Minnesota (MN) to apply dental sealants in 1966.
- First in nation to provide on-site services in Head Start centers.
- Quadrupled in size since 2000 due to increasing number of low-income children and families. Headquarters doubled in 2007 to meet this need. Opened second headquarters in 2014 to support increased need in inner-city Minneapolis.

Children's Dental Services Programs

- Target population is low-income children ages birth to 26 and pregnant women of all ages
- Is the single largest oral health provider of on-site dental care in MN schools and Head Start centers; recently entered North Dakota; HRSA pilot school-based medical/dental integration site
- Provides care focused and adapted for blind, deaf, disabled, autistic, HIV positive, drug addicted or homeless, and culturally targeted programs to those from East African, Latino, Southeast Asian, and Native American backgrounds

Service Area



2014 Demographics

- In 2014 CDS treated 33,847 patients and provided 73,518 procedures over the course of 45,980 visits
- Somali/East African (25%), Latino (24%), African American (19%), Caucasian (17%), Hmong/Southeast Asian (9%), and American Indian (6%)
- 59% female, 41% male
- 80% receive Medical Assistance (MA), 19% are uninsured and enrolled in sliding scale programs (80% of whom receive free care), and less than 1% have private insurance

Barriers in Providing Services

- Swelling population of underserved patients
- High numbers of untreated immigrants/refugees
- Lack of funding-MN's MA reimbursement rates lowest in nation (CDS 2013 uncompensated care write off exceeded $4.5 million)
- Difficulty hiring and retaining dentists (DDS)
- Results: As of 2013 only 37% of MN children receiving MA were able to see dentist

Solutions Embraced by CDS

- Portable, site-based care, particularly in school settings
- Use of telehealth (teledentistry)
- Supporting dental clinicians to practice “at top of their licenses”
- Utilization of mid-level providers

Portable Dental Care Program

- Enables full range of care to be provided on-site in community-based settings
- Equipment small enough to fit nearly anywhere
- Model supported by HRSA and MN Department of Health

Teledentistry Utilization

- Defined as remote provision of dental care, advice, or treatment through information technology, rather than through direct, personal contact with patient.
- Accomplished via telecommunication technology, digital imaging and the Internet.
- Supported by MN Department of Health's Clinical Dental Education Innovations funding.

Performing at "Top of License"

- Utilizing registered dental hygienists practicing independently under collaborative practice agreements with supervising dentists
- Training dental hygienists and dental assistants in expanded functions
- Integrating mid-level providers into dental team
- Supported by HRSA and MN Department of Health

Integration of Mid-Level Providers

- MN passed legislation in 2009 authorizing use of dental therapists to provide some restorative services under general supervision of a dentist
- Children's Dental Services hired first graduate and provides clinical training for all dental therapy students
- Currently employs one dental therapist and four advanced dental therapists (ADTs)
- Supported by HRSA and MN Department of Health

Characteristics of Minnesota Mid-Levels

- Perform limited scope of restorative services (50 common procedures versus 500 of DDS):
  - Oral evaluation and assessment
  - Non-surgical extractions
  - Restorations
  - Prevention
  - Some endodontia
  - Fabrication of mouth guards
- All ADT services can be provided under general supervision, per MN Rule 3100.0100: "do[es] not require the presence of the dentist in the office … at the time the tasks or procedures are being performed, but requires that the tasks be performed with the prior knowledge and consent of dentist."

Practice Settings for Minnesota Mid-Levels

MINNESOTA BOARD OF DENTISTRY

University Park Plaza, 2829 University Avenue SE, Suite 450
Minneapolis, MN 55414-3249 www.dentalboard.state.mn.us
Phone 612.617.2250 Toll Free 888.240.4762 Fax 612.617.2260
MN Relay Service for Hearing Impaired 800.627.3529

ADVANCED DENTAL THERAPIST SCOPE OF PRACTICE

According to Minnesota 2009 Session Laws, Chapter 93, Article 2, Section 25, the ***scope of practice*** *for an Advanced Dental Therapist includes the following:*

Subd. 2. **Scope of practice.**
(a) An advanced dental therapist certified by the board under this section may perform the following services and procedures pursuant to the written collaborative management agreement:
(1) an oral evaluation and assessment of dental disease and the formulation of an individualized treatment plan authorized by the collaborating dentist;
(2) the services and procedures described under [the Dental Therapist scope of practice] section 150A.105, subdivision 4, paragraphs (c) and (d); and
(3) nonsurgical extractions of permanent teeth as limited in subdivision 3, paragraph (b).
(b) The services and procedures described under this subdivision may be performed under general supervision.

Subd. 3. **Practice limitation.**
(a) An advanced practice dental therapist shall not perform any service or procedure described in subdivision 2 except as authorized by the collaborating dentist.
(b) An advanced dental therapist may perform nonsurgical extractions of periodontally diseased permanent teeth with tooth mobility of +3 to +4 under general supervision if authorized in advance by the collaborating dentist. The advanced dental therapist shall not extract a tooth for any patient if the tooth is unerupted, impacted, fractured, or needs to be sectioned for removal.
(c) The collaborating dentist is responsible for directly providing or arranging for another dentist or specialist to provide any necessary advanced services needed by the patient.
(d) An advanced dental therapist in accordance with the collaborative management agreement must refer patients to another qualified dental or health care professional to receive any needed services that exceed the scope of practice of the advanced dental therapist.
(e) In addition to the collaborative management agreement requirements described in section 150A.105, a collaborative management agreement entered into with an advanced dental therapist must include specific written protocols to govern situations in which the advanced dental therapist encounters a patient who requires treatment that exceeds the authorized scope of practice of the advanced dental therapist. The collaborating dentist must ensure that a dentist is available to the advanced dental therapist for timely consultation during treatment if needed and must either provide or arrange with another dentist or specialist to provide the necessary treatment to any patient who requires more treatment than the advanced dental therapist is authorized to provide.

- Subd.2. Limited Practice Settings:

  An ADT licensed under this chapter is limited to primarily practicing in settings that serve low-income, uninsured, and underserved patients or in a dental health professional shortage area.
- ADTs can practice independently in rural or low-income regions where dentist shortage is most acute.

Initial Questions about Mid-Levels

- Dentists' primary source of information about field
  - Local dental associations
  - National dental associations
- Questions arose:
  - Quality of patient care
  - Ability to handle uncooperative patients
  - Impact on supervising dentist/liability

Collaborative Management Agreements

- Formal agreement between dental therapist and supervising dentist
- Statute requires all ADTs to engage in a Collaborative Management Agreement (CMA)
- No more than five ADTs can enter into CMA with a single DDS

Collaborative Management Agreements

- CMAs must include:
  - Practice settings and populations to be served
  - Any limitations on services provided by supervised dental therapist
  - Age and procedure specific practice protocols
  - Dental records protocol
  - Plan to manage medical emergencies
  - Quality-assurance plan
  - Protocol for dispensing and administering medications
  - Protocol for care to patients with special conditions or complex medical histories
  - Referral protocol

Issues of Quality and Risk

- ADTs and DDS undergo the same licensure exams for procedures they both provide.
- Marsh Insurance provides professional liability coverage for ADTs currently licensed as dental hygienists and members of ADHA. The cost is approximately $93/year.
- Professional malpractice insurance from various providers range in cost from $564 to $1,209 for CDS's dentists (average cost is $775/year).

Data on Dental Therapy Care

- Since December of 2011, CDS's ADTs provided care to over 7,000 patients.
- Three requests to see a dentist instead of ADT.
- No complaints of poor quality by ADTs; three complaints of poor quality against a dentist and one complaint against a hygienist.
- Appointment wait time decreased by 2 weeks; patient time with provider increased by 10 minutes.
- 97% of survey respondents were satisfied or very satisfied with the quality of care with ADTs, compared with 92% satisfaction with dentists and 97% satisfaction with hygienists.
- 35% increase in complex and hospital-based cases provided by dentists.

Results: Production 2011

NOTE: based on billing in community clinic setting with lower-than-average fees

Provider Code	Total Production Charges	Total Hours Worked	Total Production
DR11 Endo Provider	10,040	24	$418.33
DR01	55,165	136.8	$403.25
DR20	4,178	11.5	$363.30
DR12	47,261	148.85	$317.51
DR24	36,518	120.16	$303.91
DR36	45,898	161.53	$284.15
DR38	37,646	144.96	$259.70
DR42	26,105	116.7	$223.69
DR04	878	4.65	$188.85
DR41	7,301	40.09	$182.12
DR43	8,739	51.45	$169.85
DR44	3,616	24.2	$149.42
DR30	7,678	51.83	$148.14

Results: Production 2012

Provider Code	Total Production Charges	Total Hours Worked	Total Production
DR11 Endo Provider	6,420	16	401.25
DR01	66,696	130.39	511.51
DR04	2,132	4.35	490.08
DR20	4,974	12	414.50
ADT01	66,508	171	388.94
DR12	43,978	150.66	291.90
DR36	43,562	162.35	268.32
DR43	22,946	85.95	266.97
DR44	43,219	174.65	247.46
DR38	27,094	111	244.09
DR42	20,757	85.94	241.53
DR24	23,861	110.2	216.52
ADT02	9,390	52	180.58
DR41	3,017	23.55	133.79

Results: Production 2013

Provider Code	Total Production Charges	Total Hours Worked	Total Production
DR11 Endo Provider	8,516	16	$532.25
DR20	19,343	43.15	$448.27
DR44	53,555	138.05	$387.58
ADT01	46,755	123.5	$378.58
DR24	53,507	144.91	$361.45
DR36	42,304	140.05	$302.06
DR01	41,008	144.96	$299.66
DT01	4,277	16.3	$262.39
DR43	3,382	4.65	$207.48
DR12	57,856	171.87	$203.46
DR53	10,676	62.74	$170.16
DR04	487	3.05	$159.67

Dental Team Production Results Integrating ADT*

- 2011: Average production of team is $280.72/hr
- 2012: Average production of team is $298.09/hr ($292.13 adjusting for fee increase); average production of ADT is $340.35/hr
- 2013: Average production of team is $336.87/hour ($326.76 adjusting for fee increase); average production of ADT is $365.04/hr
- 2014: Average production of ADT is $365.44/hr

* Data based on: salaries: dentist =$75/hr, dental therapist=$39/hr, advanced dental therapist=$45/hr; providers bill and paid same per procedure

Financial Impact

DDS Cost
$75/hr

ADT Cost
$45/hr

ADT provides restorative care/year to 1,500 children and pregnant women with low incomes

Total cost savings using ADT public health model:
$1,200/week
$62,400/year

Cost-Benefit Analysis based on 1 ADT providing services covered under the ADT statute for 40 hours/week in a public health dental clinic.

Effective Dental Teams

According to the PEW Center on the States, a team approach to dentistry has been found to be the most effective and provide the most access to dental care:

"In solo private dental practices—where most dentists work—adding new types of providers and dental hygienists produced gains in productivity and increased earnings by a range of 17 to 54 percent. Dentists who operate a practice by themselves can increase their pre-tax profits by six or seven percent by accepting more Medicaid-enrolled children and hiring either a dental therapist or a hygienist-therapist."

Summary: Dental Team Criteria for Success in School-Based Setting

- Greater reach via community-based portable settings
- Innovative accessibility via culturally targeted care, new technologies like teledentistry
- Diversity of workforce providers including DDS, ADT, collaborative practice RDH, RDH, LDA, unlicensed DA, community health worker

Results: - Higher levels of communication/coordination

- High patient satisfaction

- Expanded access to basic and complex care

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THANK YOU

Please direct questions to:

Sarah Wovcha, JD, MPH
Executive Director
Children's Dental Services
636 Broadway St. NE
Minneapolis, MN 55413

612-636-1577
swovcha@childrensdentalservices.org