Factors Associated with Receiving Treatment for Dental Decay for Medicaid-Enrolled Children Under 12

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Promoting and Protecting the Health of Iowans
Factors associated with children’s access include:

- Insurance Status (Public, Private, None)
- Language Spoken
- Race/Ethnicity
- Gender of Child
- Rurality
- Parents’ Education Level
- Parents’ Income
I-Smile Program

- Conducted through Iowa’s Title V child health system
- Goal: link children to dental home
- Benefits low-income, uninsured, underinsured children 12 years and younger
- 55,089 dental screenings conducted in fiscal year 2011
Purpose of Study

- Do children obtain treatment after being screened positive for decay?

- What factors are associated with seeking treatment for decay?
Methods

Data Sources:

CAReS
- Dental screening records from January – April 2010 (N=23,949)
- Medicaid claims for specific restorative dental codes filed between January 2010 and October 2010 (N=153,008)
Variables

CAReS

- Screening Date
- Gender
- Language
- Race/Ethnicity
- Decay Status (Yes/No)
- Child’s Age
- Rurality
- Public Health Region
- Dental Home
- Medical Home

Medicaid

- Claim codes:
  - D2120-D2954,
  - D3110-D3352, and
  - D7111-D7250
Data Linking

23,949 CARes Dental Screening Records

Duplicates

18,109 Screened

153,008 Medicaid Claims (D2000, D3100 to D3400 codes, D7000 codes)

Duplicates and D7000 Codes Removed

26,378 Medicaid Claims

1,369 Medicaid/CARes Matches

1,816 Decay Positive

14,293 Decay Negative

935 had Medicaid claim within 6 months of screening

428 Received Treatment Matched to Medicaid (23.6%)

1,388 Did Not Receive Treatment Unmatched to Medicaid (76.4%)

507 Received Treatment Matched to Medicaid (3.5%)

13,788 Did Not Receive Treatment Unmatched to Medicaid (96.5%)
Results

Decay Positive

- 29.9% from East Central Iowa
- 29.1% Rural (Not adjacent to urban)
- 66.7% white, 16% unknown race/ethnicity
- 80.5% spoke English
- 92.2% had a Medical Home
- 69.3% had a Dental Home
- 52.7% Males
- 56.8% were younger than 5

Decay Negative

- 37.8% from East Central Iowa
- 22.2% Rural (Not adjacent to urban)
- 70.5% white, 16% unknown race/ethnicity
- 85.2% spoke English
- 95.5% had a Medical Home
- 61.2% had a Dental Home
- 49.9% Males
- 73.5% were younger than 5
Results

- Decay Positive
  - Not having dental home significantly associated with not receiving treatment (OR 1.90, CI:1.405, 2.579)
  - School-age children more likely to not seek treatment (OR 1.48, CI: 1.172, 1.878)

- Decay Negative
  - Not having dental home significantly associated with not receiving treatment (OR 4.07 CI:2.971, 5.564)
  - School-age children more likely to seek treatment (OR 0.66 CI: 0.542, 0.795)
Dental Home

- Dental home seems to be most important factor of receiving treatment (both for decay positive and negative)

- Consistent with literature with medical home-children with medical home receive medical treatment

- Our results suggest that dental home is important for children- Both children with and without caries were more likely to go without treatment if they did not have a dental home
Age

- Children older than 5 were more likely to not receive treatment if screened positive for decay.
- However, children older than 5 were more likely to receive treatment if screened negative for decay.

Possible explanations:
- Children younger than 5 may have been screened through WIC meaning that parents may have interacted with dental hygienist.
- Older children may be more capable of informing parent when they have oral health issues even if screened negative.
Limitations

- Data Linking only had one run
- Possible hesitation of screeners to identify decay
- Children may not have used Medicaid for treatment
- Medicaid claims procedures may not have been indicative of decay
Public Health Implications

- Unique study showing associations of children characteristics for children who seek care after screening
- Help to encourage dental home model as important for children to receive care
- More research needed to find if the 76% of children not receiving treatment is accurate
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Questions?