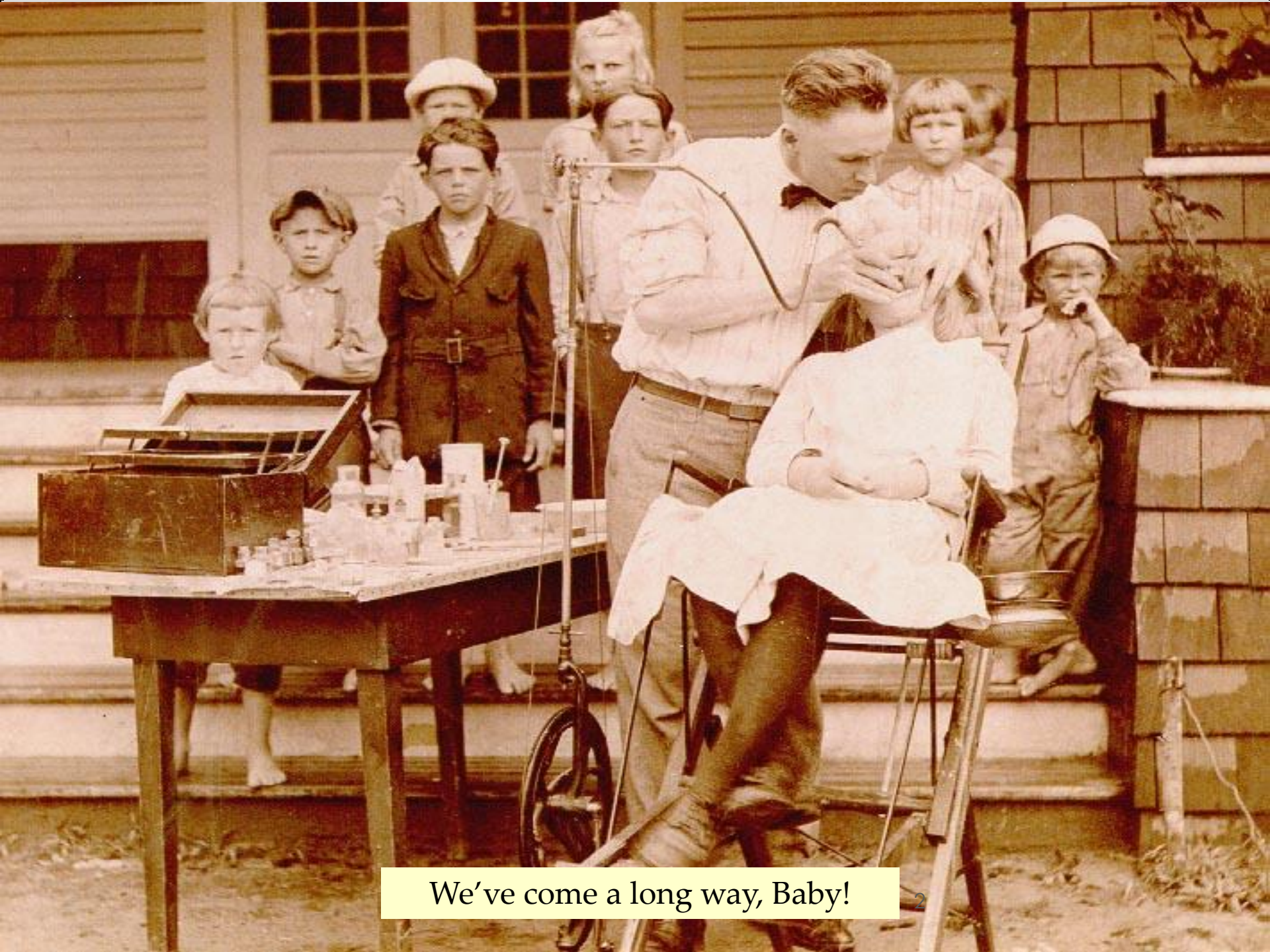


State of Pediatric Public Health
Dentistry
Oral Health Section
Division of Public Health
NC DHHS

Rebecca S King, DDS, MPH
Chief, Oral Health Section

NC IOM Task Force on Children's
Preventive OH Services
December 14, 2012

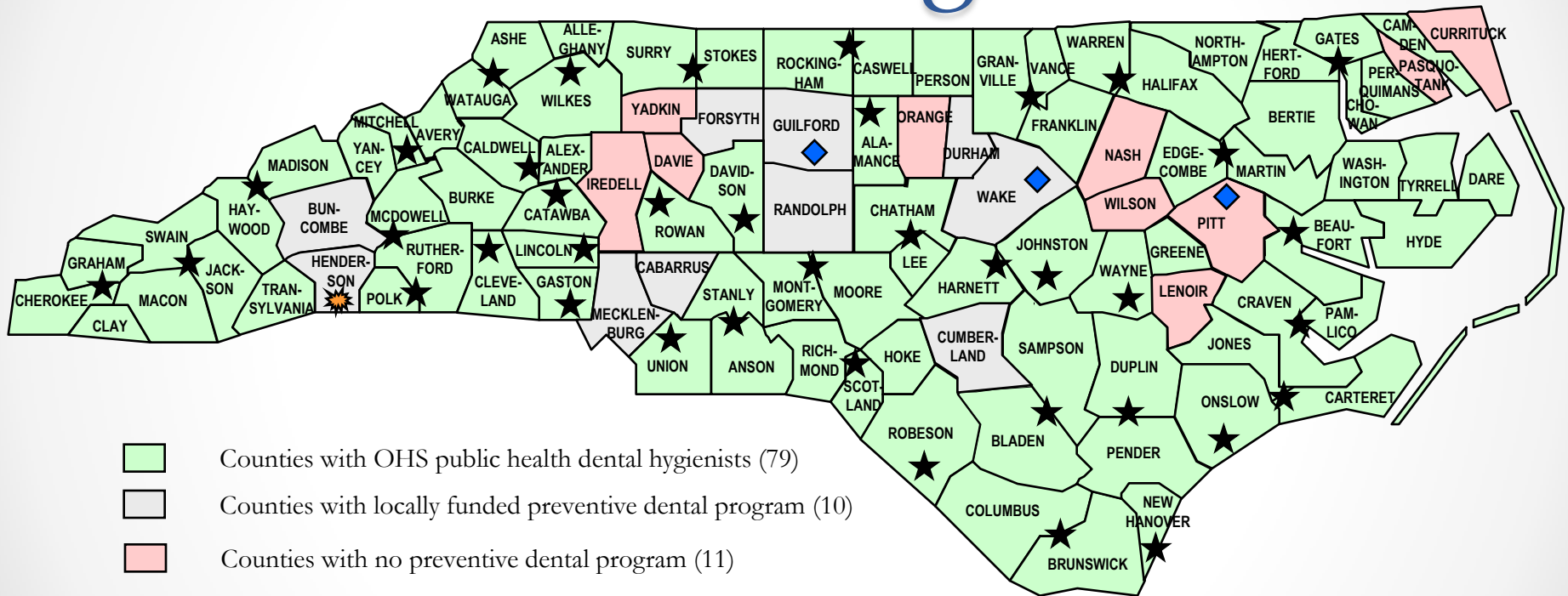


We've come a long way, Baby!

Oral Health Section Staff

- 4 Public health dentists
- 41 Public health dental hygienists
- 2 Health education staff
- 2 Equipment technicians
- Support staff

NC Dental Public Health Coverage



- ★ OHS public health dental hygienists (39)
- ◆ OHS public health dentist supervisors (3)
- ★ Local hygienist under state supervision (1)

Statewide Trends for Dental Health

...

NC's Statewide Dental Surveys

Series of surveys provide data on children's dental health. Monitor changes in the oral health status of children statewide:

- Early 1960s
- 1976-1977
- 1986-1987
- 2003-2004



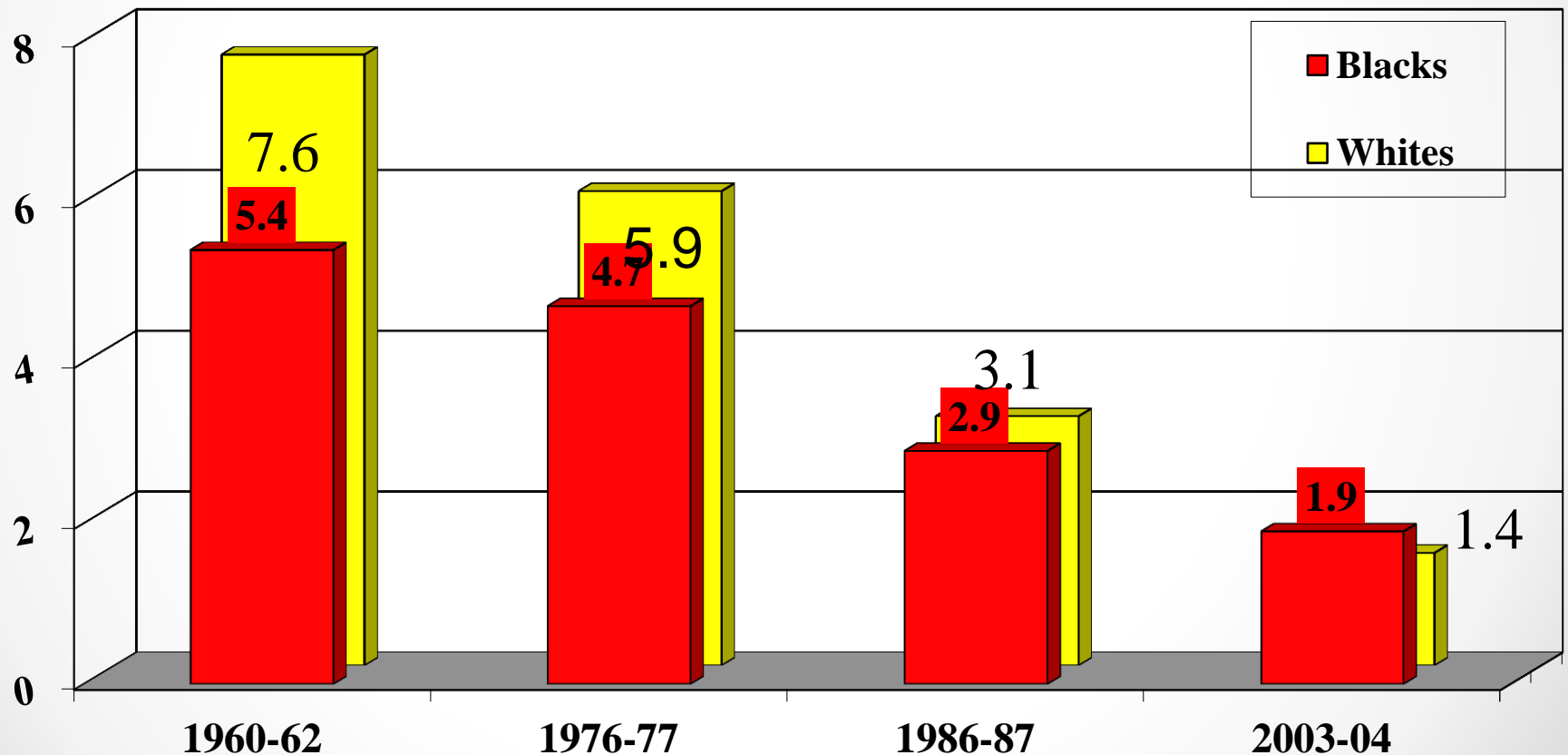
2003-2004 Statewide Dental Survey

- Sample: 8000 children K-12
- Measure
 - Decayed, filled , missing teeth
 - Disparities
 - Parents' knowledge and opinions
 - How dental health affects quality of life
- Study how well NC decay prevention programs are reducing decay



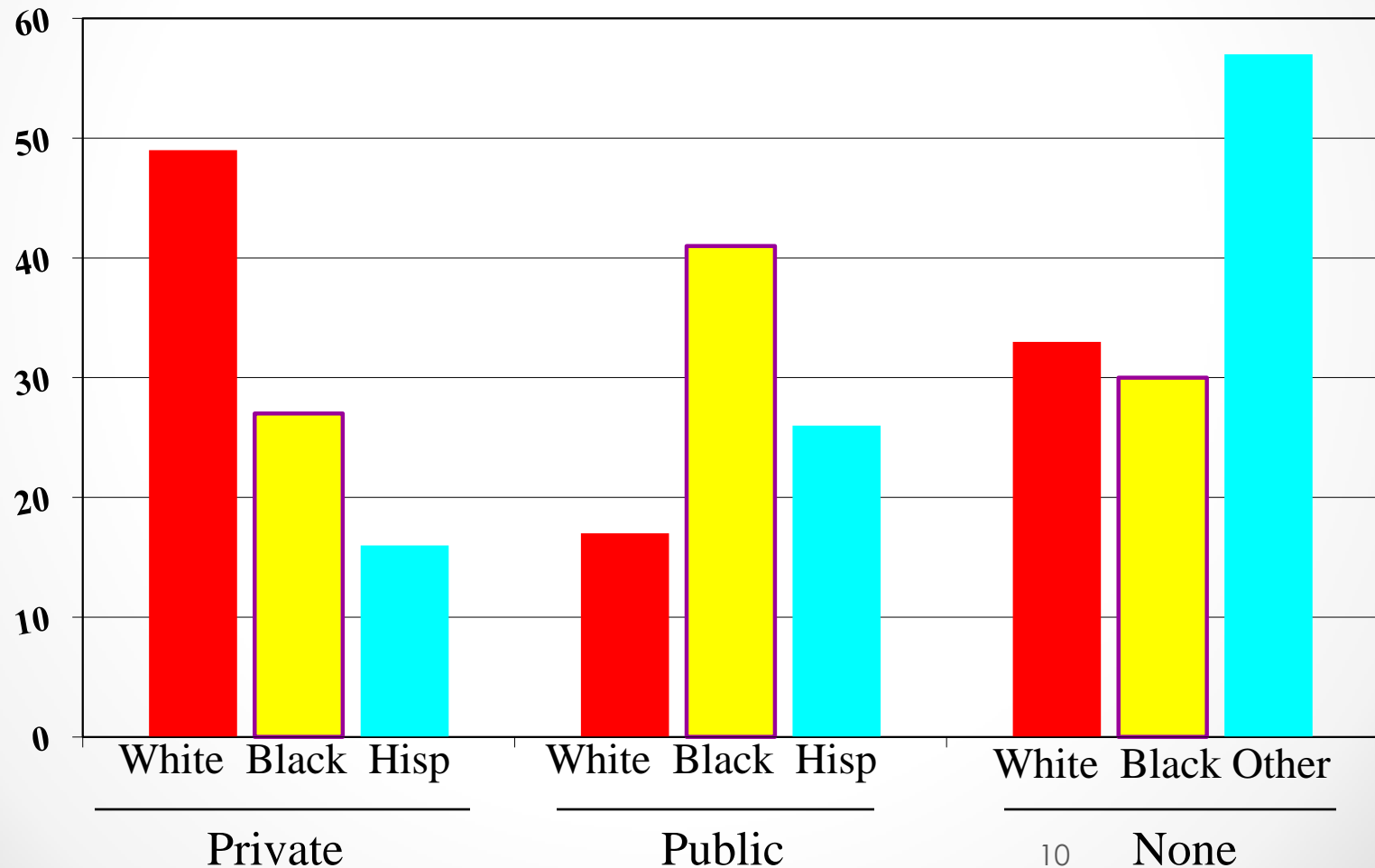
Trends in Tooth Decay (DMFT) in 12-17-Year-Old Children*

Mean DMFT



Percent of Children with Dental Insurance by Type and Race*

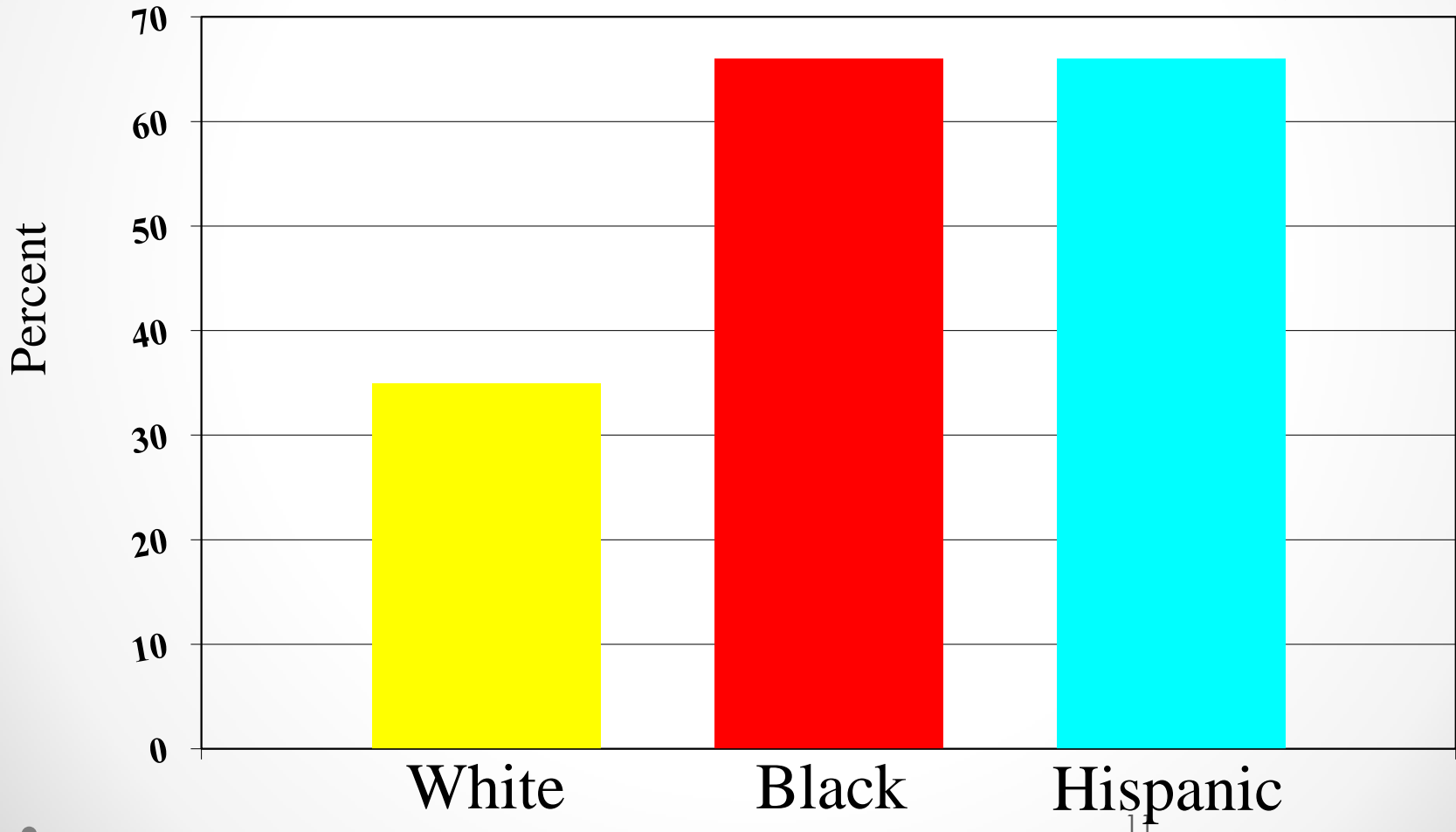
Percent



*2003-2004 NC OHS Statewide Dental Survey

Value Placed on Oral Health*

Baby teeth do not need to be filled because they are going to fall out anyway! “% of parents who agree”



*2003-2004 NC OHS Statewide Dental Survey

Screening and Referral

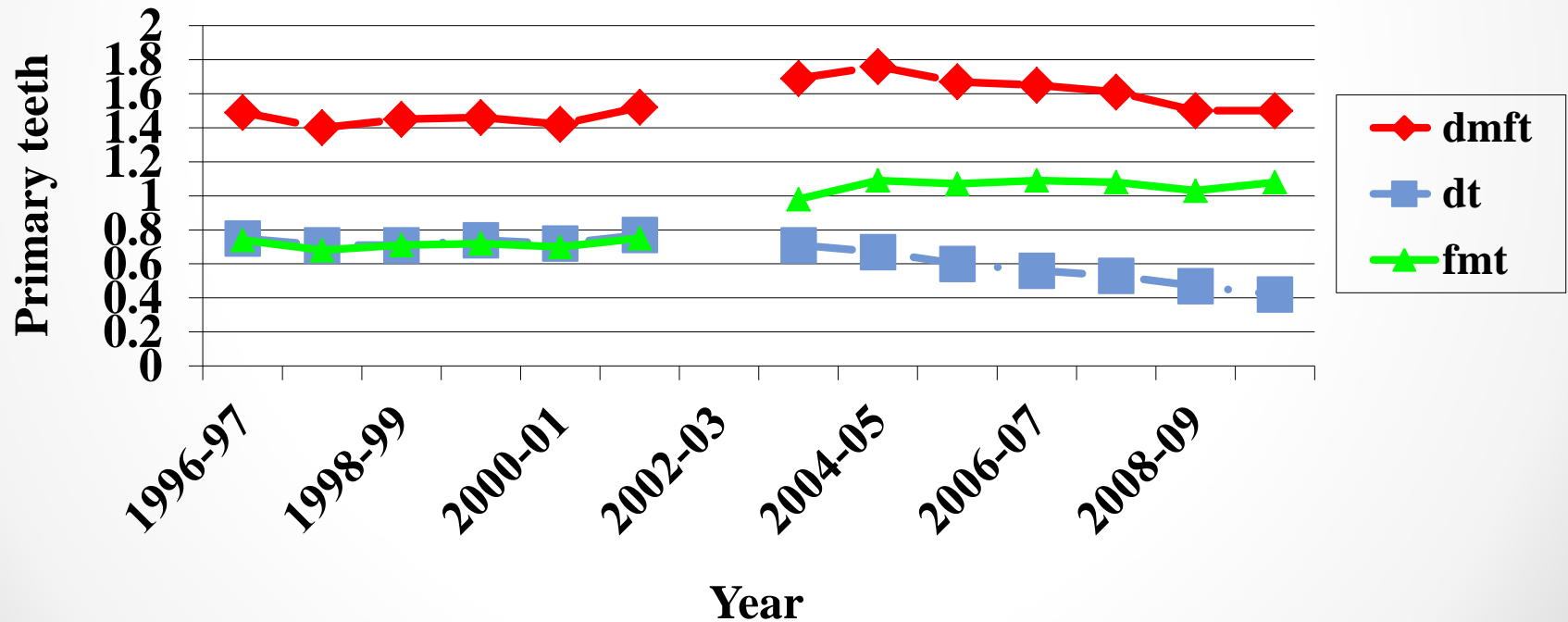
2011-2012:

- 105,000 screened in Kindergarten and 5th grade
 - for sealants
 - special activities (Give Kids a Smile!) and
 - at request of school nurses
- Identified 15,400 in need of dental treatment
 - many are Medicaid eligible but aren't identified as such
- Work to locate local source of care



Kindergarten Children

primary/baby teeth*



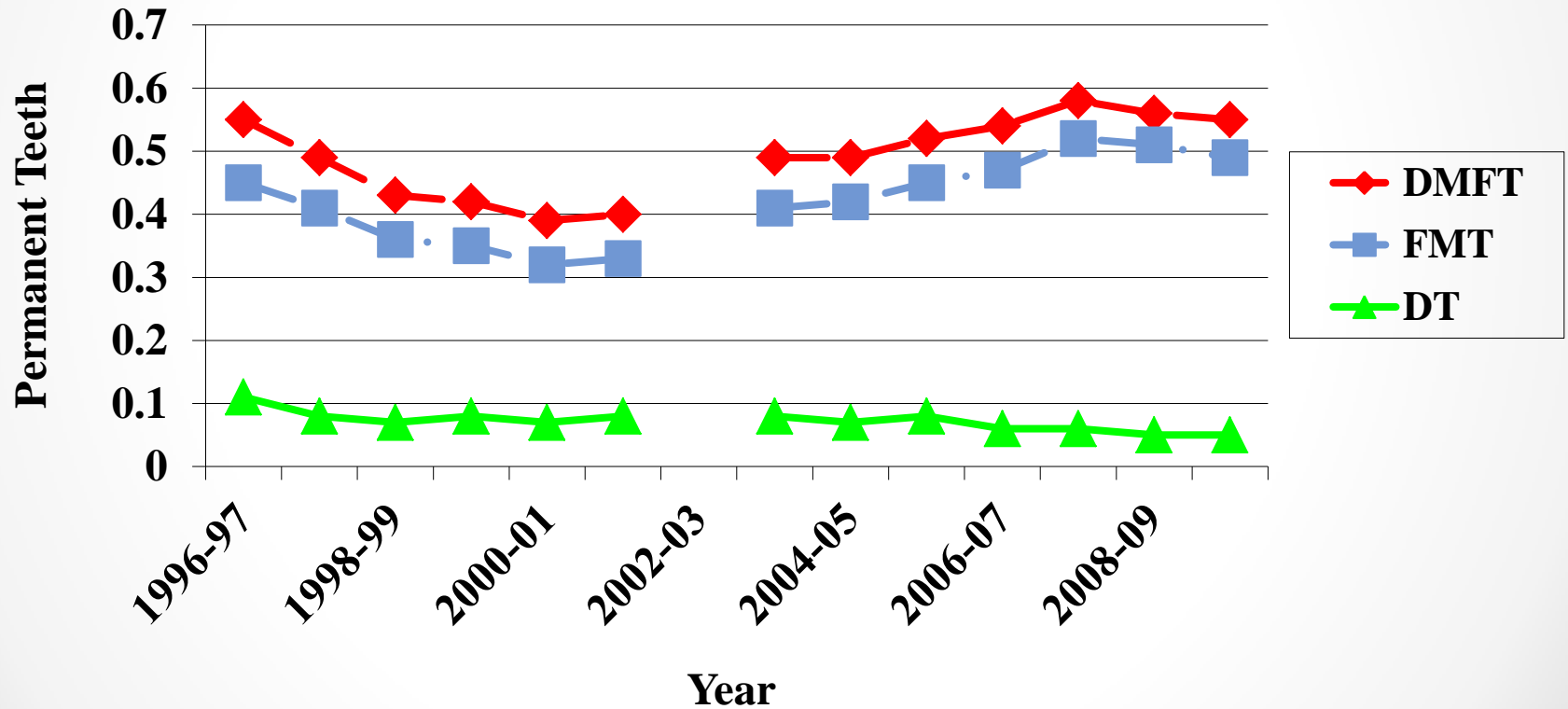
dt = untreated decayed teeth, fmt = filled or missing teeth (treated)

dmft = total disease, treated teeth + untreated decay

*NC OHS annual assessment data

Fifth Grade Children

permanent teeth*



DT = untreated decayed teeth, FMT = filled or missing teeth (treated)

DMFT = total disease, treated teeth + untreated decay

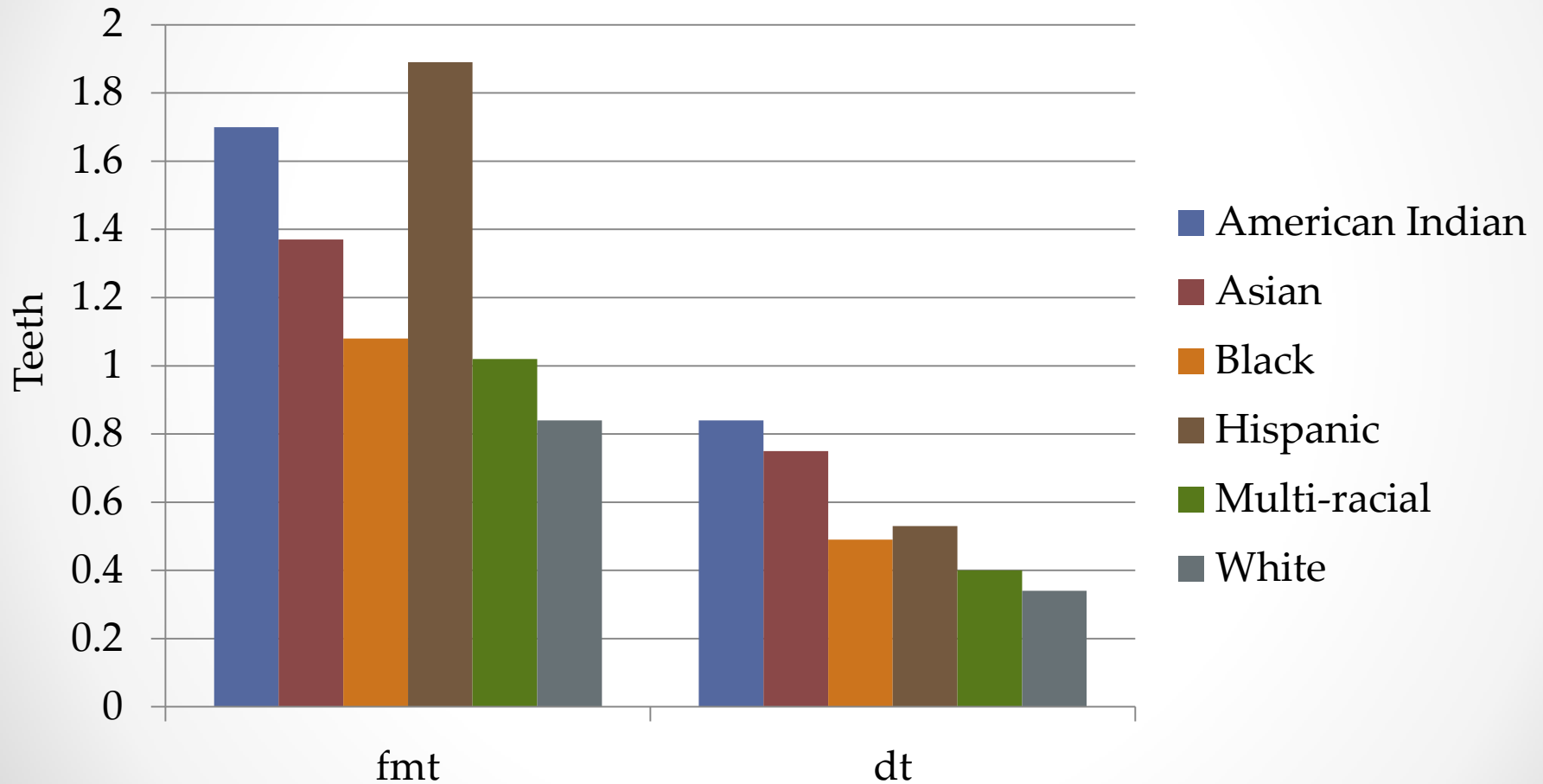
*NC OHS annual assessment data

New Demographic Data

- Worked with state department of public instruction (DPI)
- Download classroom rosters
 - Names
 - **Race/ethnicity**
 - Sex
 - DOB
 - Contact information for parent/guardian

Race/Ethnicity

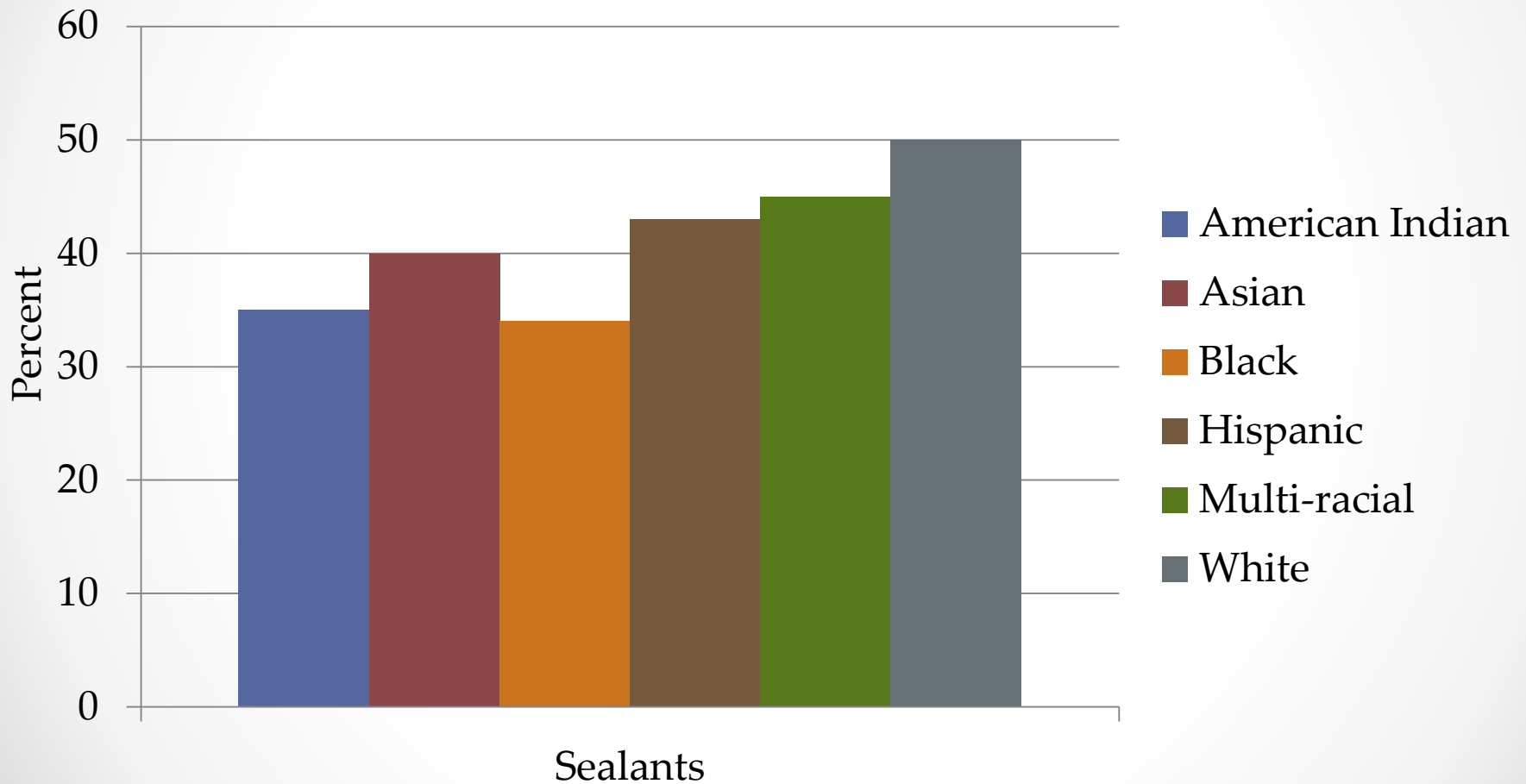
Kindergarten 2009-2010



fmt = filled or missing teeth (treated), dt = untreated decayed teeth,

Race/Ethnicity

Fifth Grade 2009-2010





Access to Dental Care

What is the
“safety net”?

Private Sources of Care

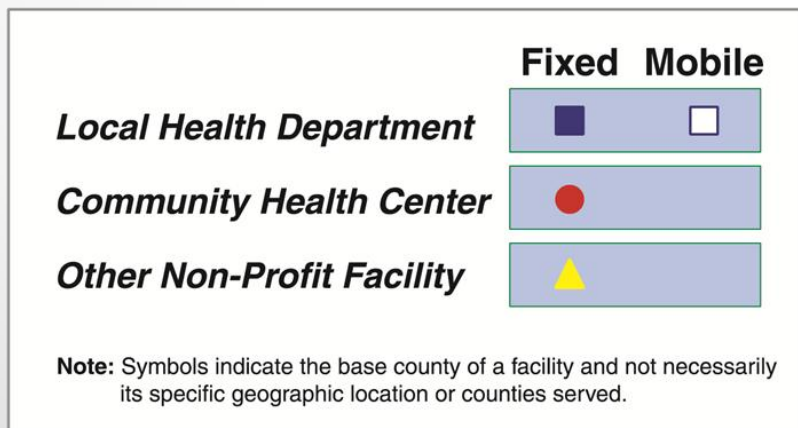
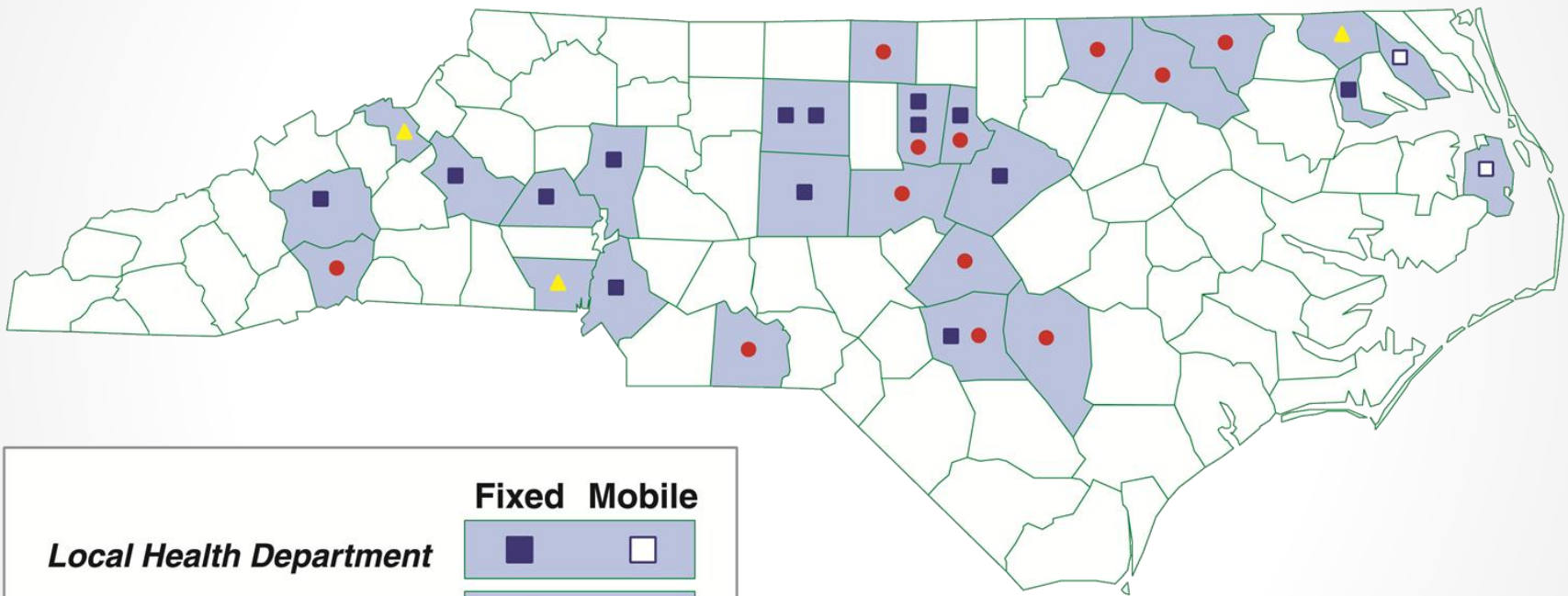
Private dental offices

- Largest number of providers and facilities
- Treat the most patients
- Locate a dentist who treats Medicaid :
<http://www.ncdhhs.gov/dma/dental/dentalprov.htm>

Public Sources of Care

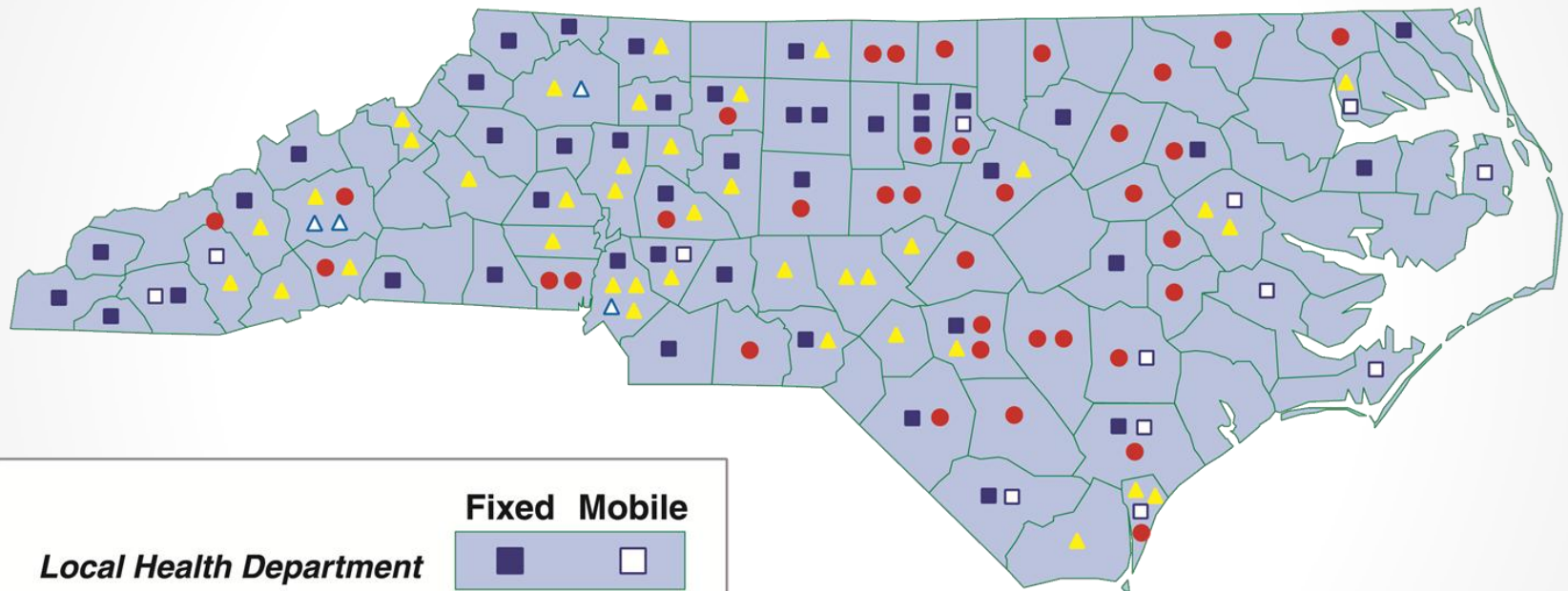
- Public Health Department Dental Clinics
 - Operated by individual or regional health department
 - Local decisions on policies
 - Most see mostly children
 - **Seeing higher proportion of the uninsured**
- Federally Qualified Health Centers
 - Required to take all who come






PH Dental Care Safety Net Facilities Prior to 1996



Oral Health Section, Division of Public Health, NC DHHS

PH Dental Care Safety Net Facilities Now



| | Fixed | Mobile |
|----------------------------------|---|---|
| Local Health Department |  |  |
| Community Health Center |  | |
| Other Non-Profit Facility |  |  |

Note: Symbols indicate the base county of a facility and not necessarily its specific geographic location or counties served.

Oral Health Section, Division of Public Health, NC DHHS

Local PH Dental Safety Net Clinics

- Number of fixed, mobile and “free” clinics increased dramatically from the early 1990s
- Google: NC dental safety net
<http://www.ncdhhs.gov/dph/oralhealth/services/safety-net.htm>



FOR INDIVIDUALS AND FAMILIES

EDUCATION RESOURCES

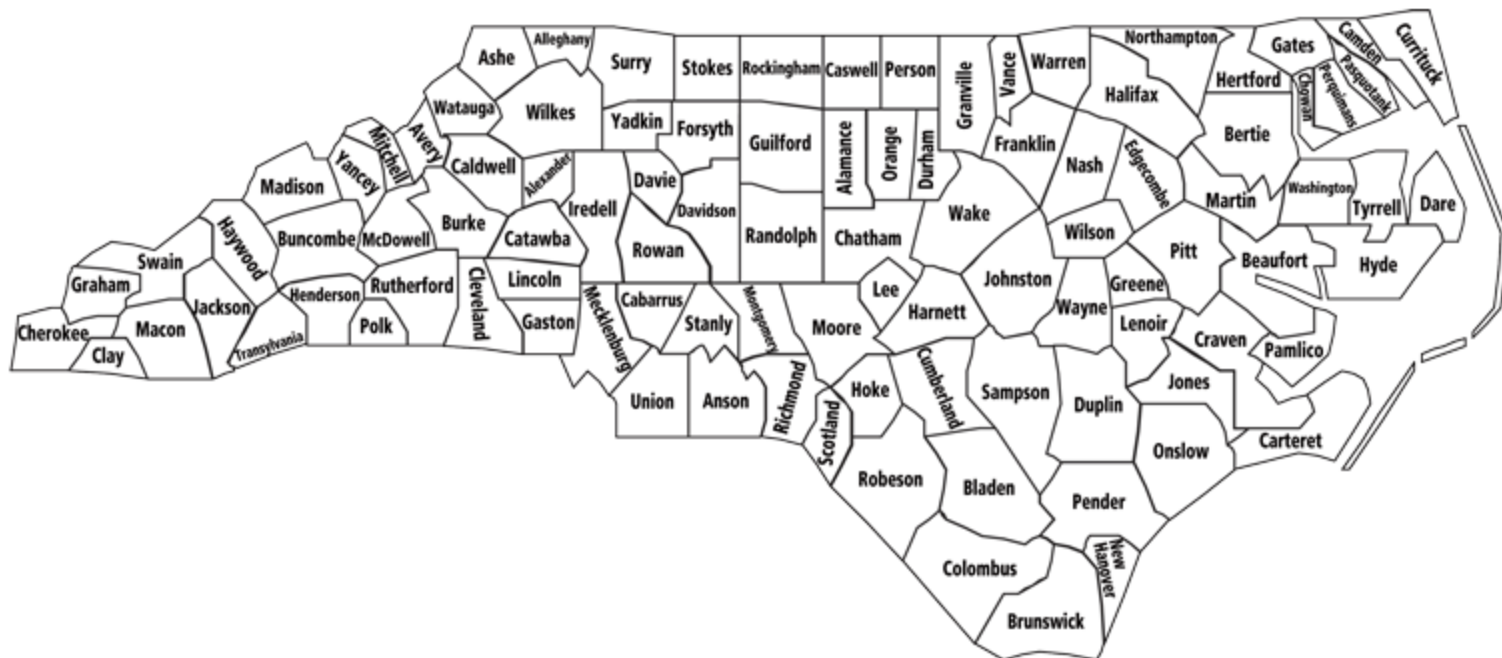
FOR PARTNERS AND PROVIDERS

REFERENCES AND STATISTICS

DHHS > DPH > Oral Health > Safety Net Dental Clinics > Find Your Local Clinic

Find Your Local Safety Net Dental Clinic

[View all](#)



County Dental Clinics in North Carolina

A B C D E F G H I J K L M N O P Q R S T U V W Y

| | | | |
|---------------------------|---------------------------|-----------------------------|------------------------------|
| Alamance | Dare | Macon | Sampson |
| Alexander | Davidson | Madison | Scotland |
| Alleghany | Davie | Martin | Stanly |
| Anson | Duplin | McDowell | Stokes |
| Ashe | Durham | Mecklenburg | Surry |
| Avery | Edgecombe | Mitchell | Swain |
| Beaufort | Forsyth | Montgomery | Transylvania |
| Bertie | Franklin | Moore | Tyrrell |
| Bladen | Gaston | Nash | Union |
| Brunswick | Gates | New Hanover | Vance |
| Buncombe | Graham | Northampton | Wake |
| Burke | Granville | Onslow | Warren |
| Cabarrus | Greene | Orange | Washington |
| Caldwell | Guilford | Pamlico | Watauga |
| Camden | Halifax | Pasquotank | Wayne |
| Carteret | Harnett | Pender | Wilkes |
| Caswell | Haywood | Perquimans | Wilson |
| Catawba | Henderson | Person | Yadkin |
| Chatham | Hertford | Pitt | Yancey |
| Cherokee | Hoke | Polk | |
| Chowan | Hyde | Randolph | |
| Clay | Iredell | Richmond | |

ECU

Community-based service learning centers

- Under development
- Will have 10, currently:
 - Ahoskie, Elizabeth City, Lexington, Lillington, Spruce Pine, Sylva
- Will see all age groups
- Private pay and Medicaid reimbursement

Give Kids a Smile!

- NC Dental Society initiative to provide education, preventive and restorative care to children who do not have access to care
- To date since 2003, more than:
 - 123,000 children served
 - \$10.5 M free care
 - 14,700 dental volunteers
- Many dentists continue to treat GKAS patients
- OHS PH Dental Hygienists screen and coordinate



Goal 1

Increase proportion of
Medicaid- or NC Health
Choice-eligible children ages 1-
20 who receive any preventive
dental services

Pre-school Dental Prevention Programs in North Carolina

...



The Beginning

- 1995 health assessment group in the mountains
- Oral health was top priority
- Reduce early childhood tooth decay
- Treatment or prevention?
- 1999 pilot
- Medicaid agreed to begin reimbursement in 2000



Motivating Assumptions

- ECC is a serious public health problem
- Its burden can be reduced through prevention targeted to very young, high risk children
- Community input: virtually all infants & toddlers obtain care at medical offices and it is a logical place to provide services
- Progressed from pilot to statewide program



Into The Mouths of Babes

• • •

Statewide Medicaid Dental Prevention Program for Young
Children

Goals

Enlist our Medical colleagues to help:

- Increase access to preventive dental care for low-income children
- Reduce the prevalence of ECC in low-income children
- Reduce the burden of treatment needs on a dental care system already stretched beyond its capacity to serve young children
- Change perception: baby teeth ARE important

Dental Prevention Service Package

Medicaid children from tooth eruption to age 3 1/2

- Oral evaluation and risk assessment
- Referral for dental care
- Caregiver education
- Fluoride
 - supplements
 - toothpaste
 - **fluoride varnish**





Fluoride Varnish

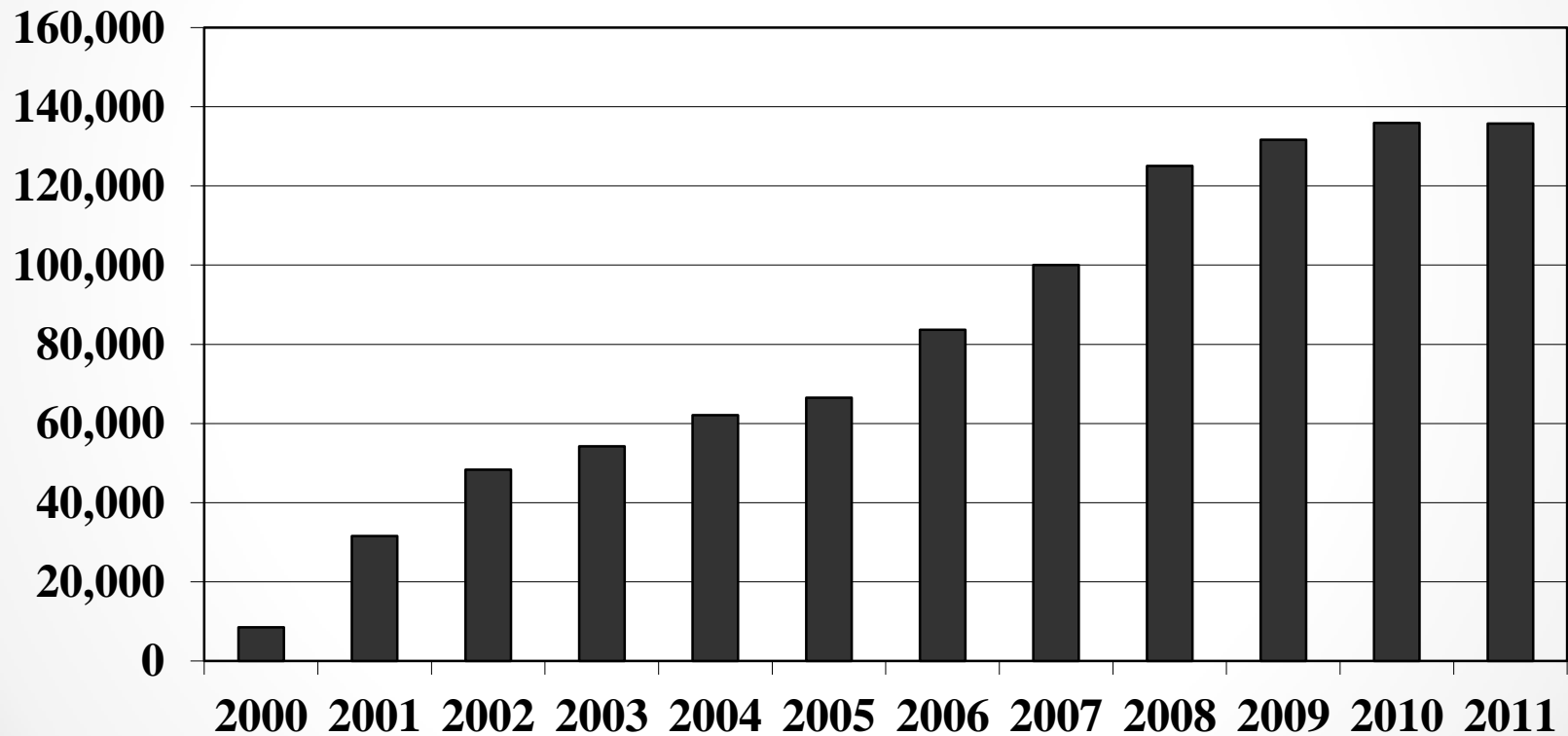


- Topical fluoride
- No suction or trays needed
- Use small amount
- “Paint” onto dry tooth
- Safe, quick and easy on very young children
- Dries immediately on contact with saliva
- Minimal ingestion

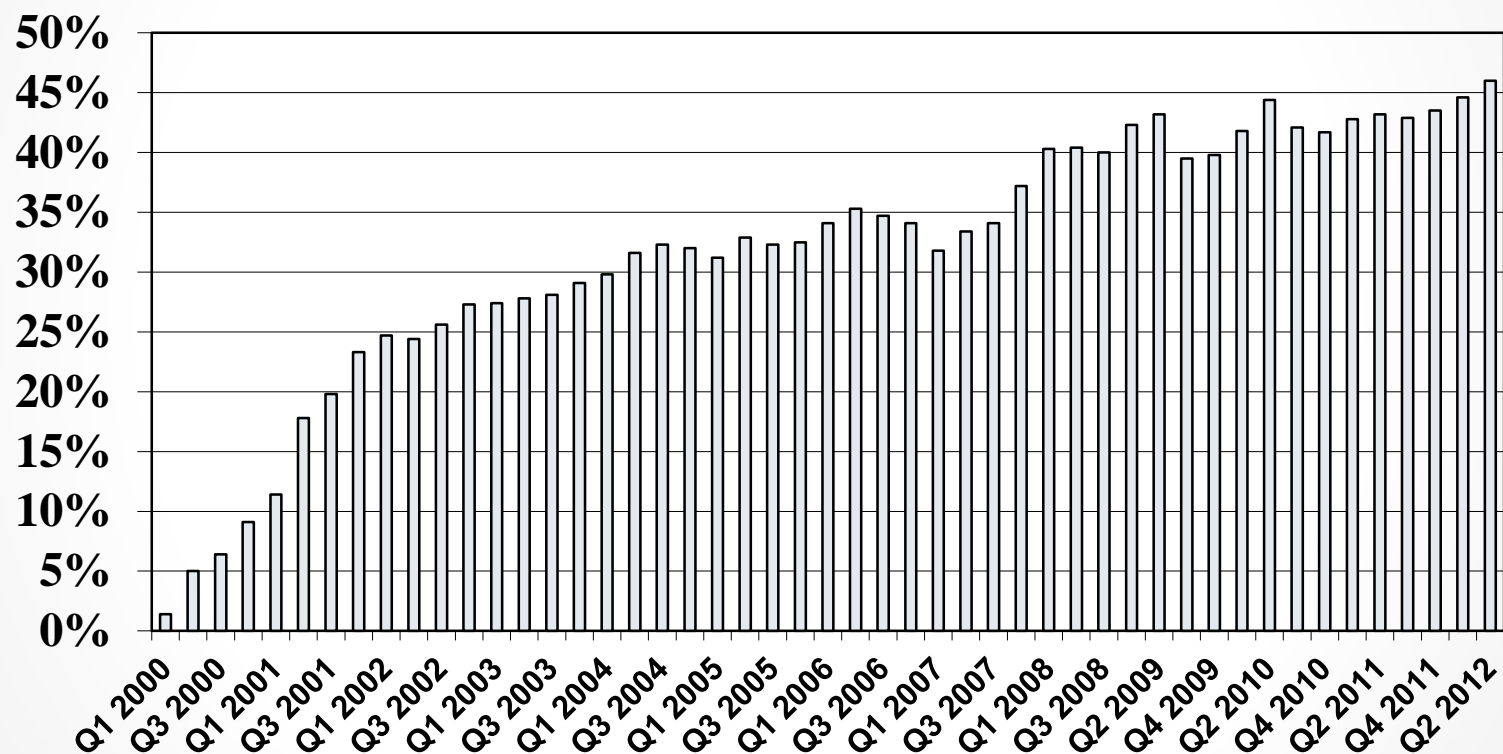
Into the Mouths of Babes

- >450 physician practices, residency programs, local health departments trained and supported
- OHS position for trainer
- Originally funded by a series of federal grants (MCH, HRSA, CDC)

Annual IMB Preventive Dental Visits in NC Medical Offices



Percent of Health Check Screenings Receiving IMB Services *



* For years 2000-2006 includes 1-2 yr olds only, for 2007 on includes 1-3 year olds.

Rates

| CDT 2007 Code | Description | Reimbursement Rate |
|---------------|---|--------------------|
| DO145 | Oral evaluation for patient < age 3 and counseling with primary caregiver. Once every 60 days. Six times before age 3 1/2. | \$35.62 |
| D1206 | Topical fluoride varnish, therapeutic application for moderate to high risk patients. Once every 60 days. Six times before age 3 1/2. | \$15.72 |

IMB Program Evaluation

Series of evaluations show contributed to:

- Increase in access to preventive dental services
- Reduction in treatment services, particularly in early life
- Increase in dental use through referral, which attenuated treatment reductions observed in dental claims because of disease treatment
- Reduction in hospitalization
- 50% chance of breakeven for costs

Early Head Start

- Surveys and focus groups to find needs
 - Teachers
 - Parents
- Developing and piloting training materials
 - Expand the concept that baby teeth are important
 - **Increasing access by urge parents to seek early preventive care**

Carolina Dental Home

- HRSA *Access to Dental Care* Grant
- Brought providers together to pilot test how to best **get more successful dental referrals** for very young high-risk children, develop risk assessment tool
- Collaborators:
 - Local dentists and Pediatric Dentist, Family Physicians, Pediatricians, Medicaid, NC Dental Society, Oral Health Section, UNC Schools of Dentistry and Public Health, community leaders, others

Risk Assessment and Referral Tool

- Working to **increase early dental referrals** for high risk children
- Ongoing work on a short risk assessment tool to help identify risk status of children and track referral to a dentist
- Latest modification: develop curriculum for CHIPRA QI staff to train using video





10905

PORRT - NC Priority Oral Health Risk Assessment and Referral Tool

Child's MID#

| | | | | | | | | | | | |
|--|--|--|---|--|--|---|--|--|--|--|--|
| | | | - | | | - | | | | | |
|--|--|--|---|--|--|---|--|--|--|--|--|

11/11/2011 11:11:11 AM

| | | | |
|--|--|--|--|
| | | | |
|--|--|--|--|

Child's Last Name

[illegible]

Child's First Name

[illegible]

Child's Middle Name

[illegible]

Today's date:

Child's Date of Birth

Parent/Guardian's relationship to child: ☐ Mom ☐ Dad ☐ Grandparent ☐ Other:

[illegible]

PRACTICE NAME:

[illegible]

PROVIDER NAME:

[illegible]

A. Questions for Parent/Guardian

| | Yes | No | Referral Recommendation |
|---|--------------------------|--|---|
| 1. Do you brush your child's teeth at least once a day using toothpaste with fluoride? | <input type="checkbox"/> | <input type="checkbox"/> | If 3 or more risk factors (shaded boxes) are marked, refer to a Dentist. |
| 2. Does your child drink fluoridated water? | <input type="checkbox"/> | <input type="checkbox"/> | |
| 3. Does your child drink juice or sweetened drinks between meals or eat sugary snacks? | <input type="checkbox"/> | <input type="checkbox"/> | |
| 4. Have you or anyone in your immediate family had dental problems? | <input type="checkbox"/> | <input type="checkbox"/> | |
| 5. Does your child sleep with a bottle filled with drinks other than water? | <input type="checkbox"/> | <input type="checkbox"/> | |
| 6. Is the child currently being seen by a dentist? <input type="radio"/> Yes <input type="radio"/> No | | | |
| If yes, name of dentist: <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> | | Date of last appointment <input type="text"/> <input type="text"/> / <input type="text"/> <input type="text"/> / <input type="text"/> <input type="text"/> <div style="display: flex; justify-content: space-around; font-size: small;"> MM DD YY </div> | |

B. Questions for Provider Based on Clinical Assessment

| | Yes | No | If Yes, Refer to a: |
|---|--------------------------|--------------------------|----------------------|
| 7. Does the child have any special health care needs? | <input type="checkbox"/> | <input type="checkbox"/> | Dentist |
| 8. Does the child have cavities? (cavitated lesions) | <input type="checkbox"/> | <input type="checkbox"/> | Dentist |
| 9. Does the child have visible plaque on the teeth? | <input type="checkbox"/> | <input type="checkbox"/> | Consider other risks |
| 10. Does the child have enamel defects? | <input type="checkbox"/> | <input type="checkbox"/> | Dentist |
| 11. Does the child have white spot lesions? (non-cavitated lesions) | <input type="checkbox"/> | <input type="checkbox"/> | Dentist |
| 12. Does the child have other oral health conditions of concern? | <input type="checkbox"/> | <input type="checkbox"/> | Dentist |
| 13. Please check procedures performed today: <input type="checkbox"/> Oral Evaluation <input type="checkbox"/> Fluoride Varnish <input type="checkbox"/> Parent Education | | | |
| 14. Was the child referred to a dentist? <input type="radio"/> Yes <input type="radio"/> No | | | |
| If YES, name of dentist: <input type="text"/> | | | |
| Provider's Signature X _____ | | | |

C. This section is to be completed by the Dental Office and faxed back to the referring physician

1. Date of dental appointment: / /
MM DD YY

2. Did the patient show up for dental appointment? ☐ Yes ☐ No

3. Did patient call to cancel the appointment? ☐ Yes ☐ No

If yes, what reason was given?

4. Brief summary of dental findings:

5. Next dental appointment: / /
MM DD YY

Time: :

10905



ZOE

- Zero Out Early Childhood Tooth decay
- Children in Early Head Start (EHS), birth – age three
- UNC School of PH, OHS, Head Start
- 5 year NIDCR, NIH grant
- **Improve access to improve prevention – improve oral health**
- **Evaluate effectiveness of interventions**

ZOE Components

- Train EHS staff
 - preventive services in the classroom
 - **Motivational Interviewing**
 - parent education
 - how to encourage parents to care for children's teeth at home
- Link EHS children with IMB medical providers
- Incentivize parents whose children get ZOE age 3 dental exam

Goal 2:

Increase proportion of children
ages 6-9 who receive a dental
sealant on at least one
permanent molar tooth

Dental Sealants



Thin plastic coating painted on the chewing surface of back teeth. Fills in the pits and grooves to prevent decay. Most effective when teeth first erupt into the mouth.

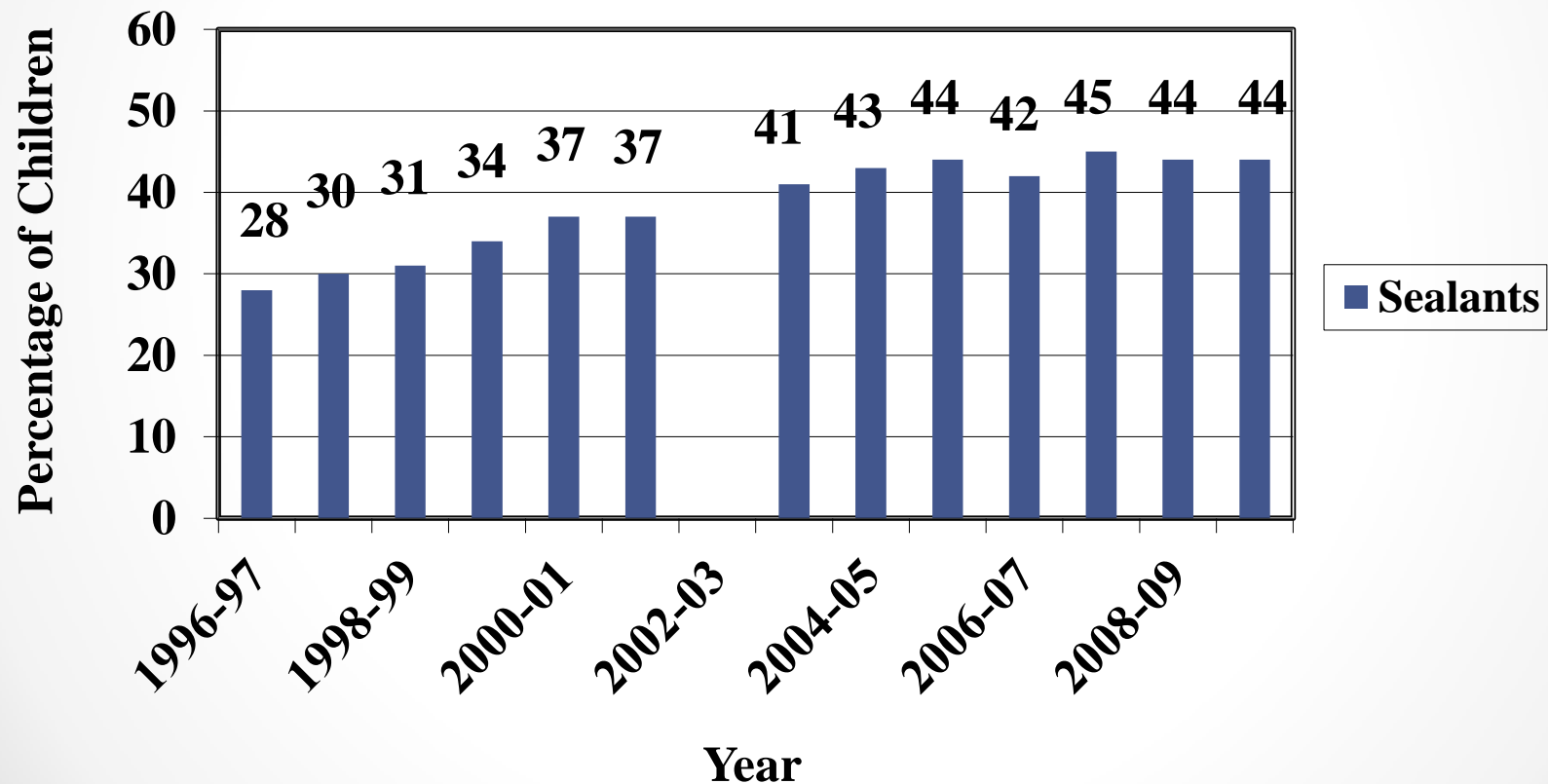
School-based Dental Prevention Programs in North Carolina

...



Fifth Grade Children with Sealants

(permanent teeth, to 2009-2010)*



Dental Sealants

- Private practices
- PH safety net clinics
- OHS
 - provided about 6,000 last year
 - encourages parents to “ask their dentist” if needed
- How do we get more sealants for high risk children?



Community Water Fluoridation



Healthy People 2020 goal :
79.6% on community
water systems

NC surpassed : 87%

Community Water Fluoridation

- Not measured in this CMS exercise, but critical to reduce decay
- Reduces decay on “smooth surfaces” (between teeth) and while sealants protect the chewing surfaces
- The most effective combination is sealants combined with fluoridation
- Severe challenges in NC. Support for it may be a possible future activity for this consortium???

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