

DECREASE DEVELOPMENT OF CARIES IN CHILDREN AGE BIRTH TO FIVE

MCH Annual Conference

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Agenda

- Why oral health?
- Define the Situation
- State and Local Level Logic Models and Action Plans
- Detail Support
- Questions and Discussion

Why Oral Health?

2000 Landmark SG report, *Oral Health in America*, described the poor oral health of our nation as a ***silent epidemic***.

- Oral health is more than just healthy teeth
- Oral health is **integral** to general health and well being
- Oral diseases are **associated** with other health problems
- There are profound and consequential OH **disparities** in the American population
- There are safe and effective ways to **prevent** most oral diseases

2003 *Call to Action to Promote Oral Health*

“No schoolchild should....be found unable to concentrate because of the pain of untreated oral infections.”

Why Oral Health?

- 2007 Deamonte Driver
- 2011 Kyle Willis



Dental Caries

- Dental caries is **chronic** **infectious** and **transmissible** but it is also nearly 100% **preventable**



This is oral health



This is not



We're number one!



Dental caries is the most common chronic disease of childhood

Five times more common in children than asthma

Dental caries is on the rise among young children



The problem

- General public lacks knowledge about the importance of oral health
- Many adults and children lack access to preventive dental care
- Medicaid recipients do not realize they have dental benefits
- Oral diseases remains prevalent especially in vulnerable and uninsured populations



National Data

Table 5. Prevalence of dental caries in primary teeth (dft) among youths 2–11 years of age, by selected characteristics: United States, National Health and Nutrition Examination Survey, 1988–1994 and 1999–2004

Characteristic	1988–1994		1999–2004		Difference
	Percent	Standard error	Percent	Standard error	
Age					
2–5 years	24.23	1.32	27.90	1.29	†3.67
6–11 years	49.90	1.79	51.17	1.96	1.27
Sex					
Male	39.50	1.73	44.43	1.90	4.92
Female	40.24	1.44	39.80	1.79	–0.44
Race and ethnicity					
White, non-Hispanic	35.84	1.46	38.56	1.90	2.72
Black, non-Hispanic	40.99	1.65	43.34	1.83	2.35
Mexican American	53.61	2.15	55.40	1.75	1.78
Poverty status					
Less than 100% FPL	51.18	2.02	54.33	2.47	3.15
100%–199% FPL	44.50	1.94	48.75	2.43	4.24
Greater than 200% FPL	31.10	1.74	32.30	1.62	1.20
Total	39.97	1.16	42.17	1.44	2.20

† *P*-value < 0.05.

NOTES: dft is the number of decayed and filled primary teeth and FPL is federal poverty threshold or level.

Decayed and filled surfaces '88-'94 and '99-'04 by FPL

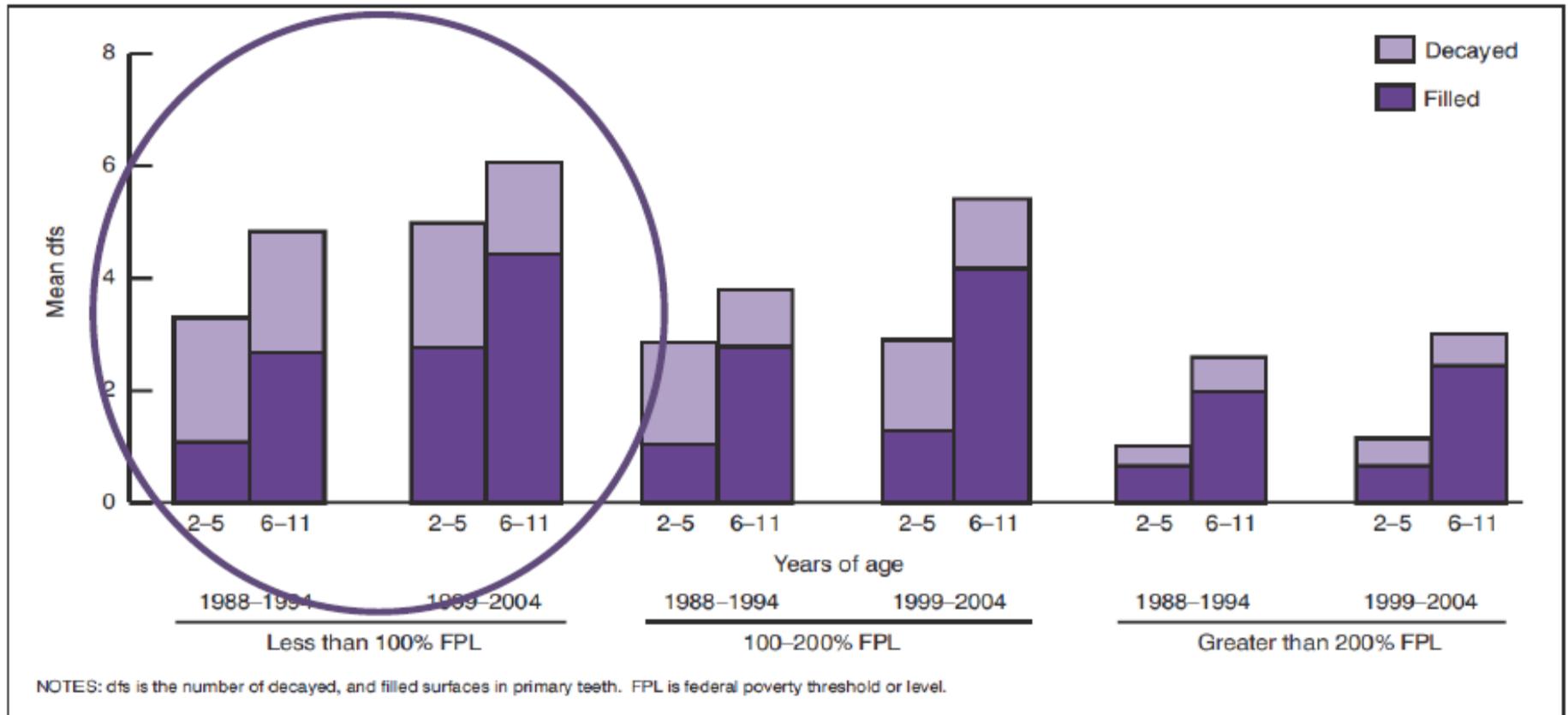
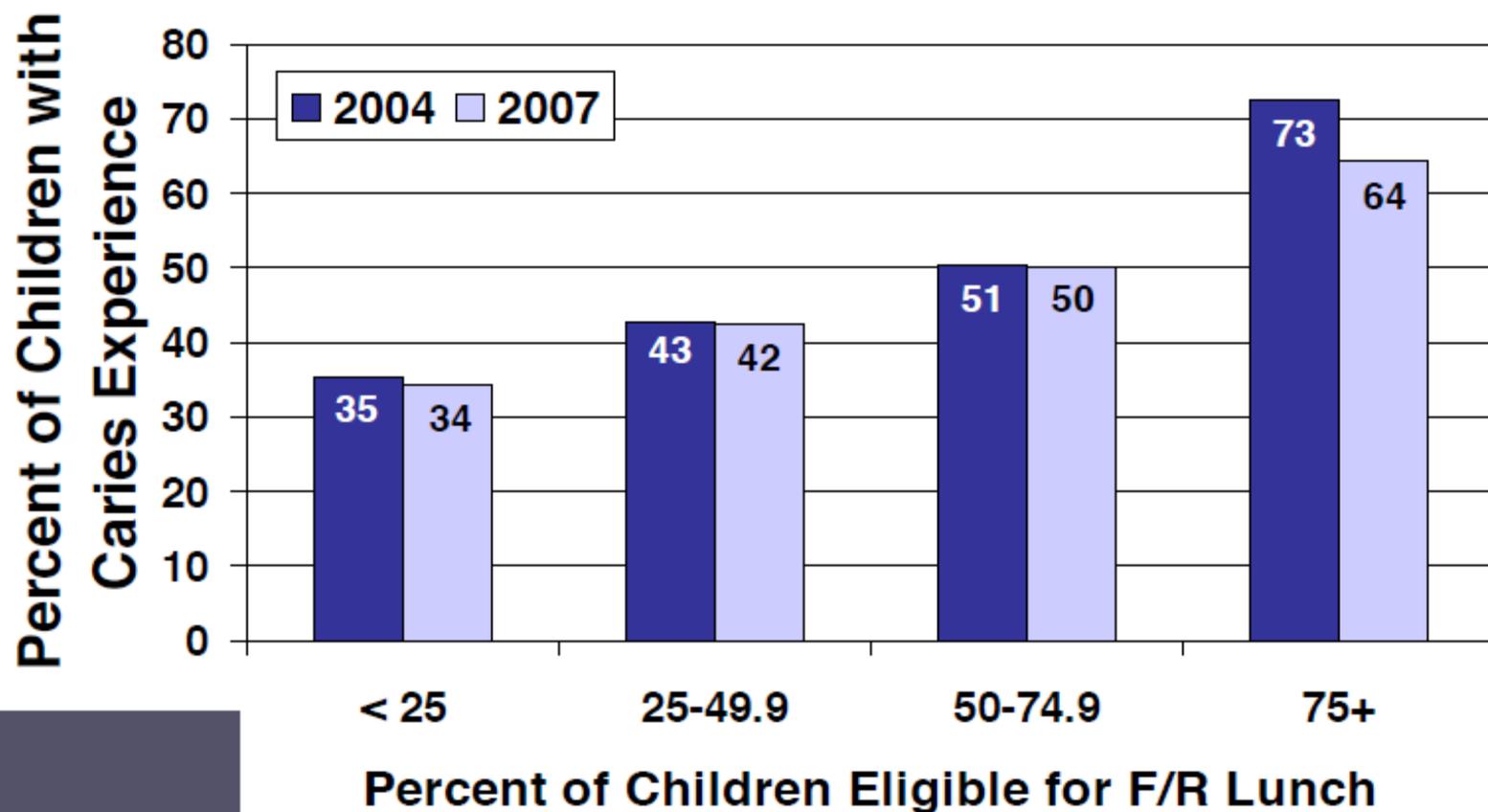
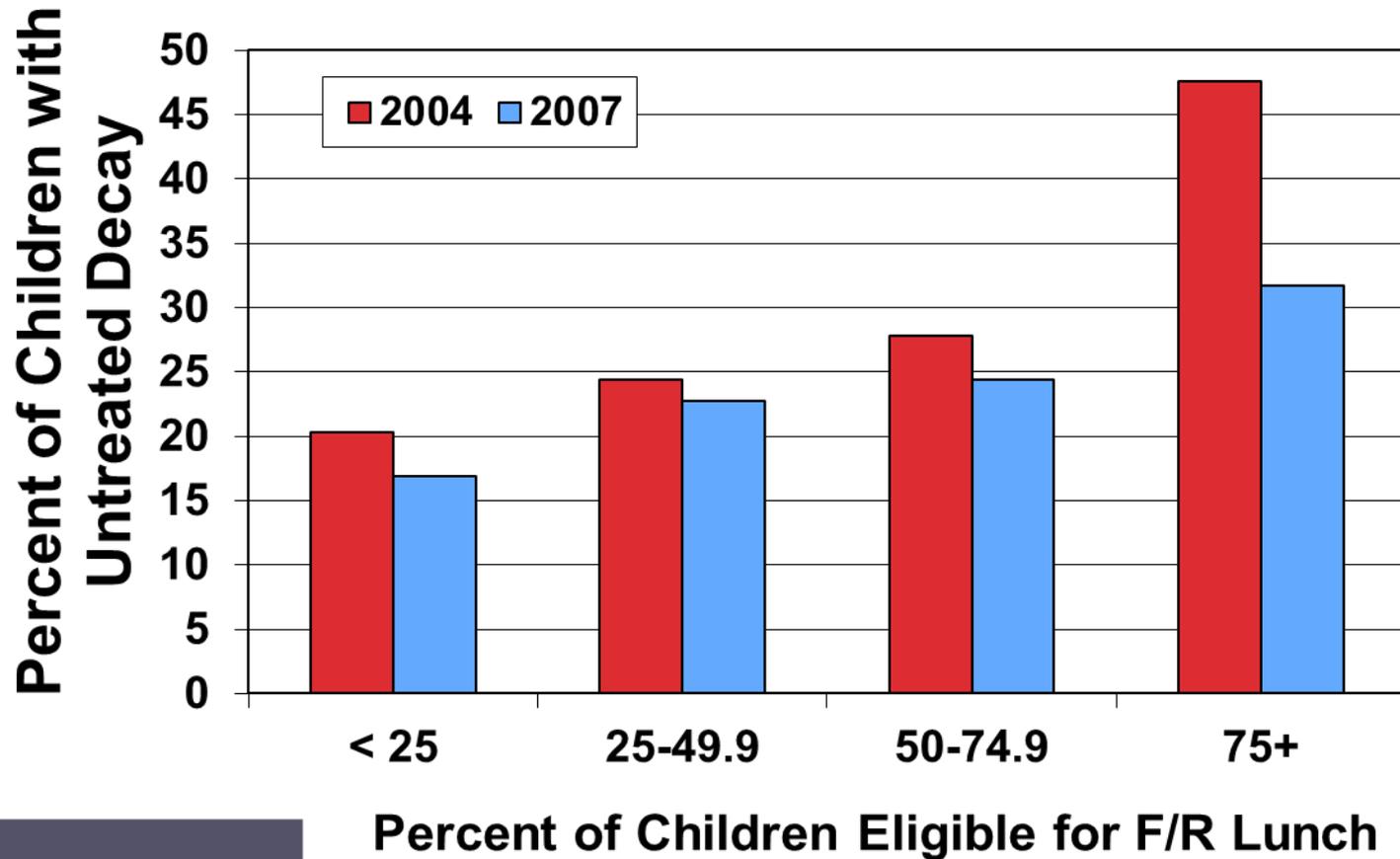


Figure 3. Decayed and filled primary dental surfaces (dfs) for youths 2-11 years of age by age groups and federal poverty level status: United States, 1988-1994 and 1999-2004

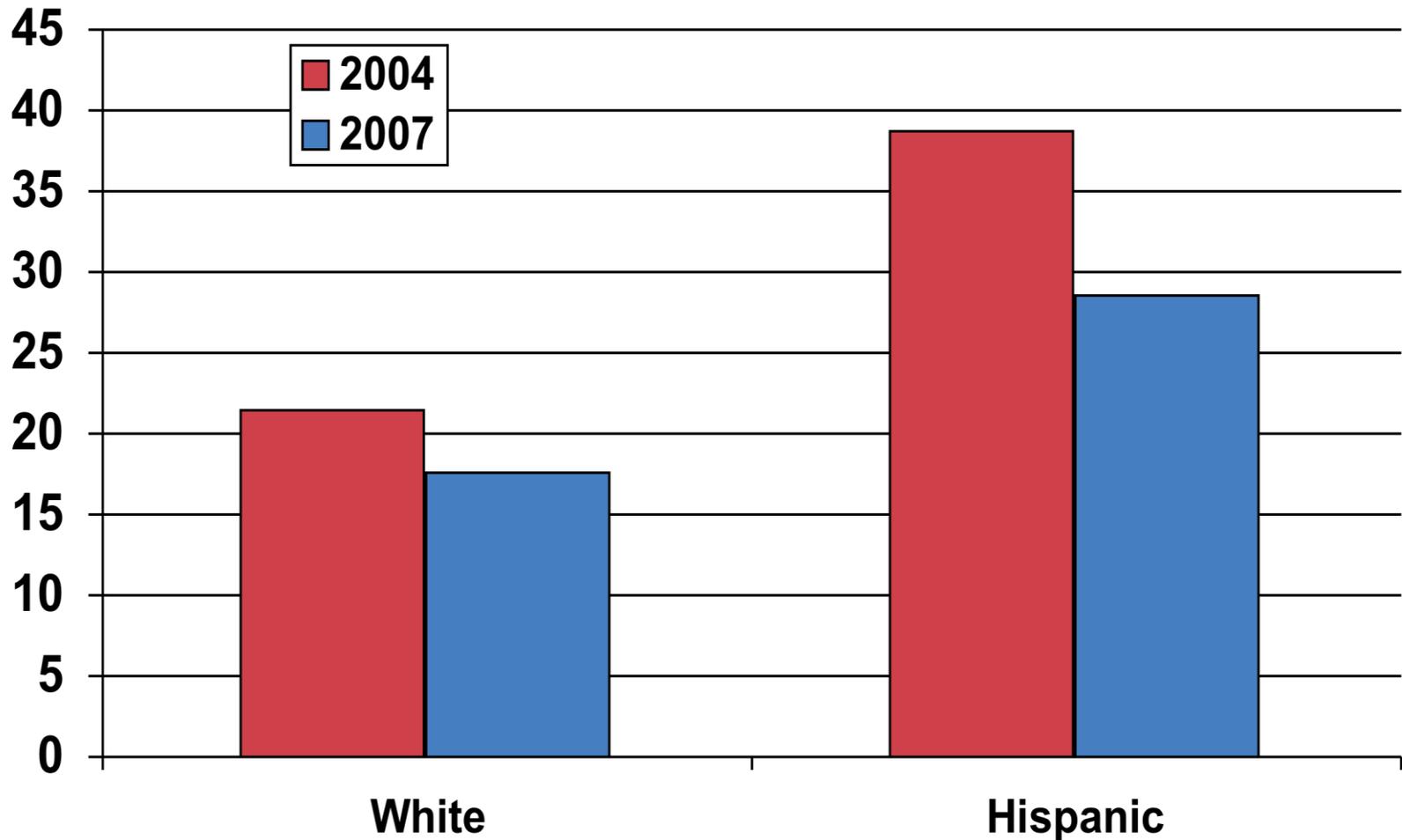
Percent of Colorado Kindergarten Children with Caries Experience by F/R Lunch Status of School '04 - '07



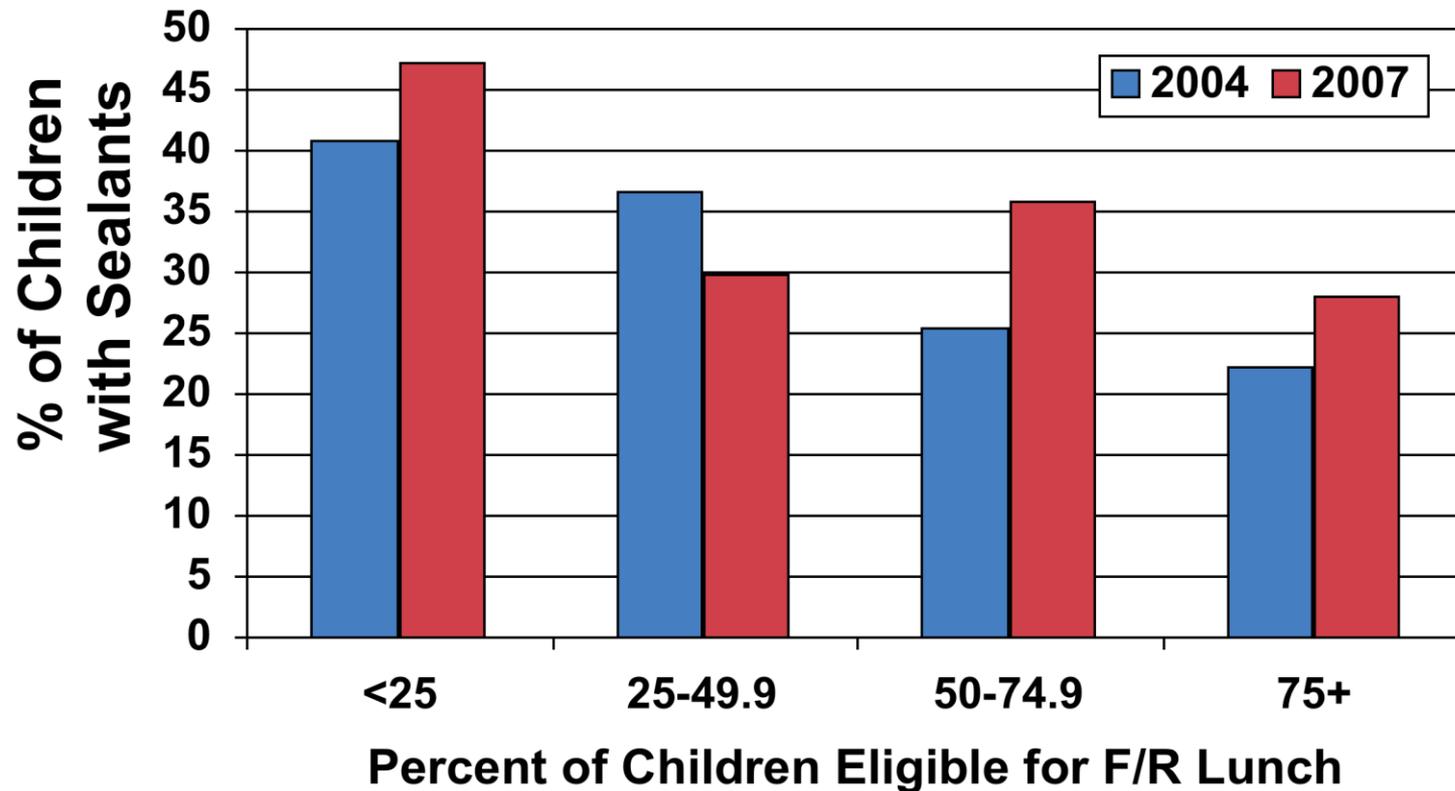
Percent of Colorado Kindergarten Children with Untreated Decay by F/R Lunch Status of School '04 & '07



Untreated Decay of Colorado Kindergarten Children by Race and Ethnicity '04 & '07



Percent of Colorado **Third Grade** Children with Sealants by F/R Lunch Status of School '04 & '07



Nationally for 2-5 year olds

- 2007 CDC (the most current report to date)
 - Cavities increased from 24 percent to 28 percent between 1988-1994 and 1999-2004.
- 70% of ECC caries is found in 8% of the population
- 50% of all children have NEVER visited a dentist
- Children (2-5) who have not visited a dentist with the past 12 months are more likely to have caries in their primary teeth.

Mean dfs scores '88-'94 and '99-'04 by FPL

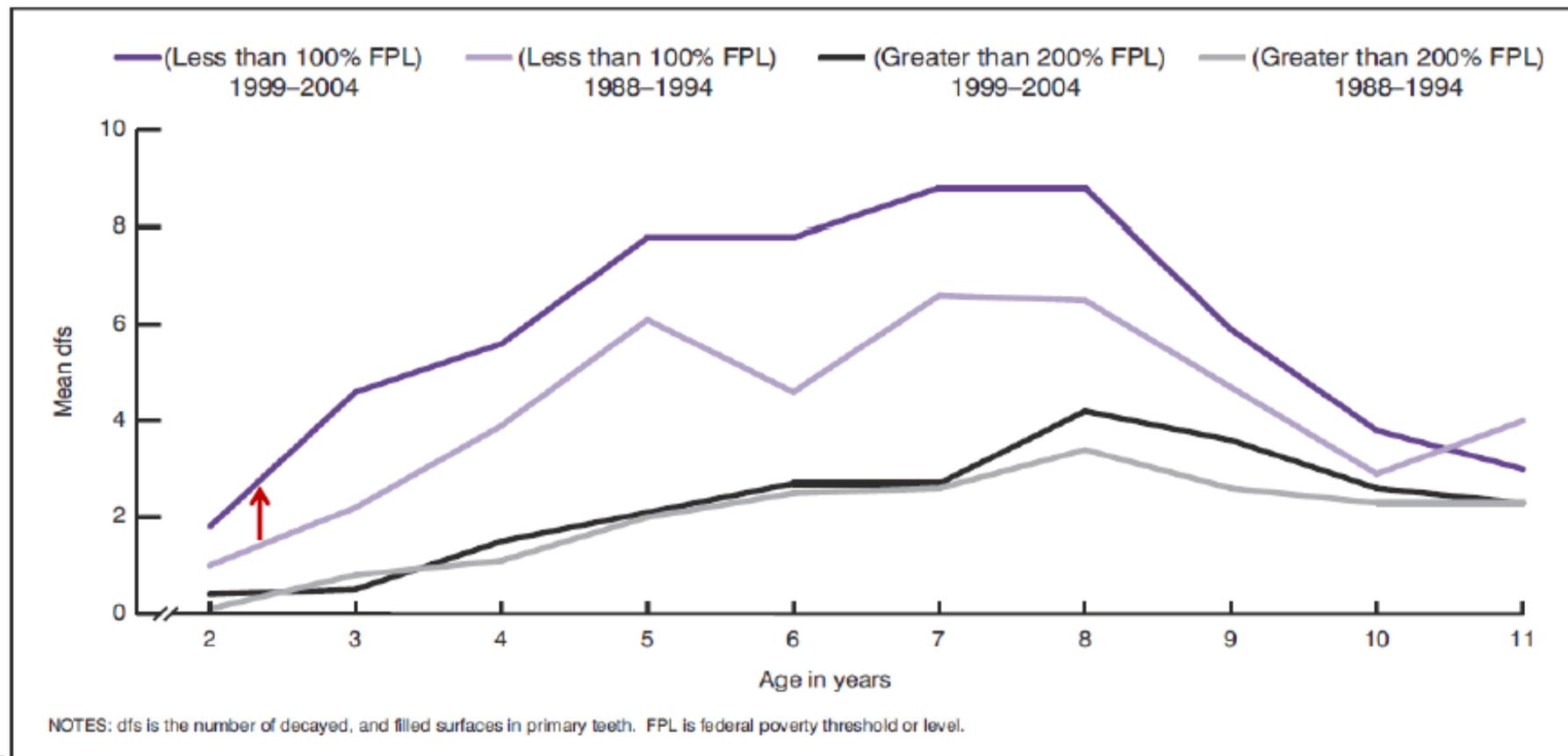
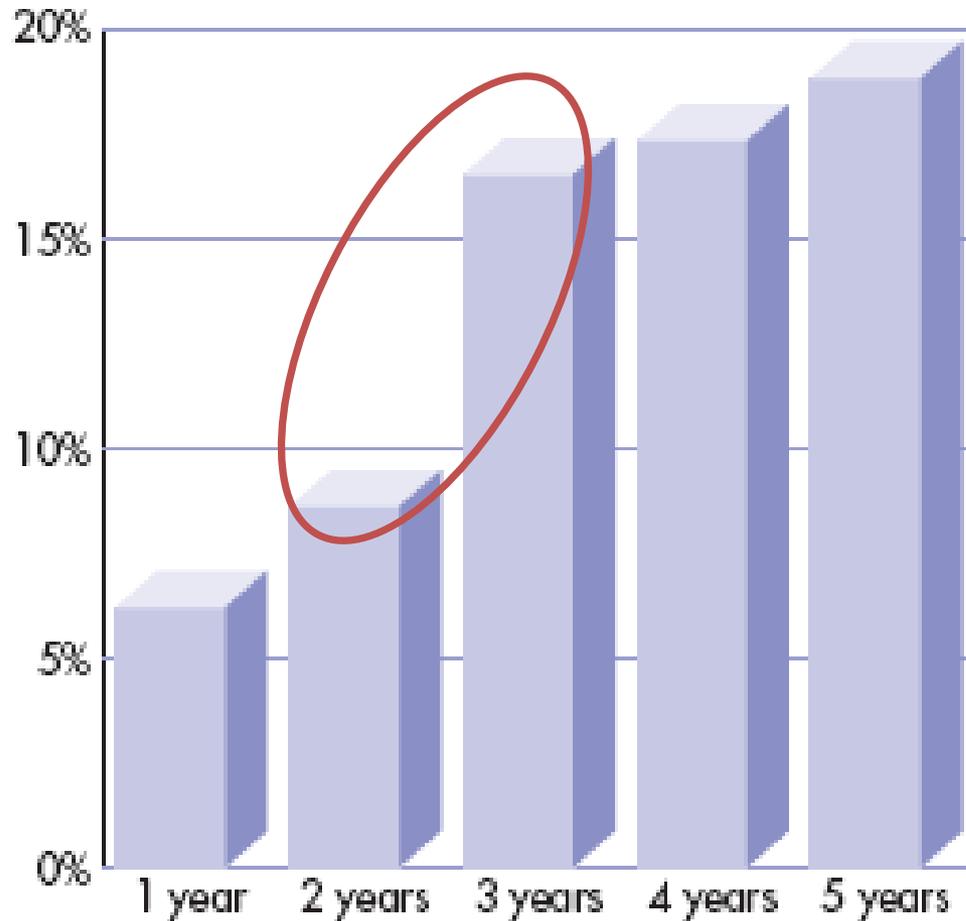


Figure 2. Mean dfs scores by children age 2-11 years of age and federal poverty level status: United States, 1988-1994 and 1999-2004

Percentage of Head Start Children with Early Childhood Caries (ECC)



Early Childhood Caries:
1 or more decayed primary
teeth

~ 10% at age 2

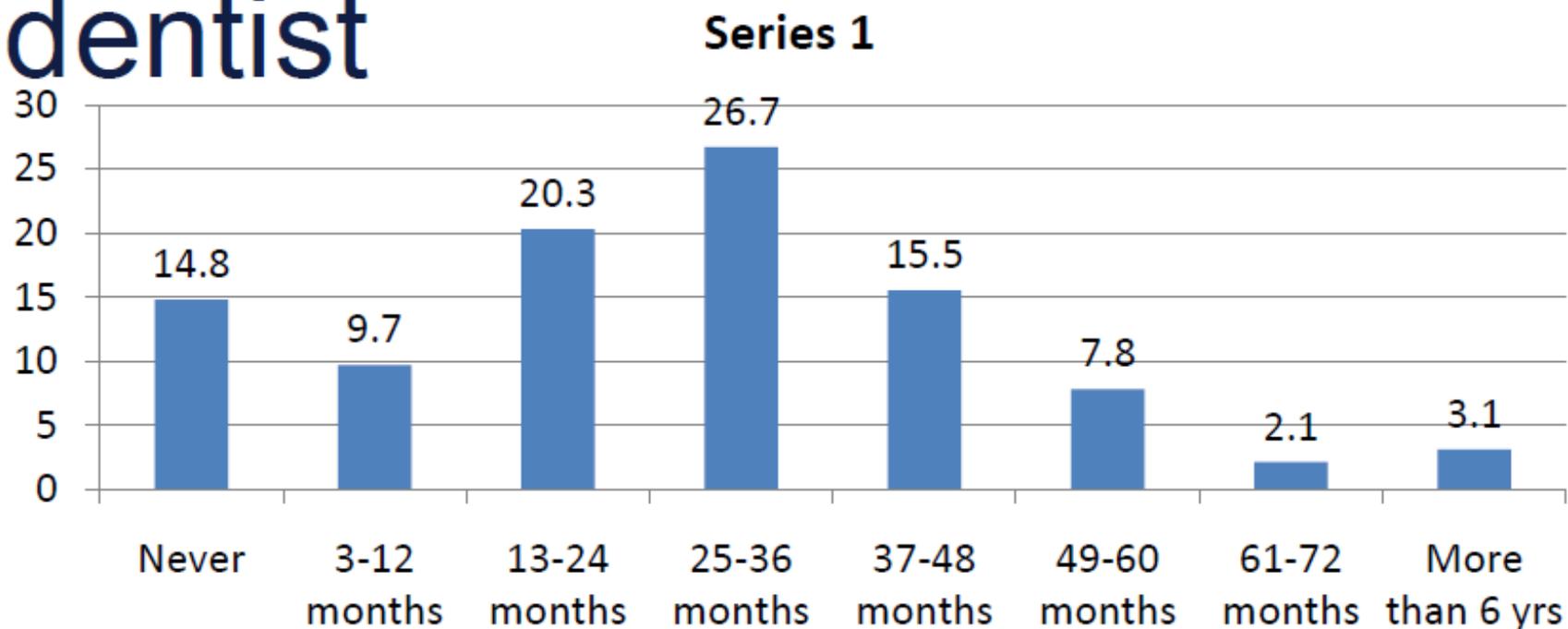
~17% by age 3

AAP and AAPD:

First dental visit by age 1

2 IS "TOO" LATE!

How old was your child when they first visited the dentist



Early Childhood Caries

- Child under age 6
- 1 or more decayed teeth
- Previously known as:
 - Baby bottle tooth decay
 - Bottle mouth
 - Nursing decay
 - Sippy cup decay

ECC



Severe ECC



Consequences of ECC

- Pain and infection
- Difficulty sleeping
- Impaired speech development
- Poor nutrition and growth
- Inability to concentrate in school; poor performance
- Lowered self-esteem; poor social relationships
- Decreased job opportunities
- Less success later in life



The Economics of Human Development



Takeaways

- Children's Health is our Nation's Wealth
- What happens early in life sets the foundation of what occurs later in life



Key Issues – In General

- General public does not recognize the **importance** of oral health
 - Dental caries and specifically ECC **prevalence** has increased
 - Poor children have about **twice** the rate of untreated decay as their more affluent peers
 - Dental Decay is a **significant** public health problem for Colorado's low-income preschool children
- 
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Key Issues - Providers

- 43 counties or sub-county regions in Colorado are designated as Dental Health Professional Shortage Areas with 9 counties having no practicing dentist.
- Additionally, only 20% of dentists in both urban and rural Colorado accept Medicaid patients.
 - Fewer than 10% are “significant” biller (10K/yr in claims)
- 80-90% of dental care occurs in the private sector

Key Issues - Providers

- The medical safety-net does not consistently address oral health
 - Dental safety-nets currently at capacity
- Limited number of specialists (pediatric DDS) and generalists feel ill-equipped to treat really young children

Key Issues – Dental Ins

Having dental insurance does not assure dental care.

Colorado, in 2009

Only 44 % of Colorado's Medicaid-enrolled children received dental services.

Nationally, in 2004

Only 30% of children enrolled in Medicaid received dental services
Compared to 55% of children who have access to commercial dental insurance.

Children w/o dental insurance are 2½ times less likely to receive dental care than insured children



ORAL HEALTH UNIT

- Mission
- Target population
- Work with MCH – narrowed our focus 0-5 population
- Why?

“What happens early in life sets the foundation of what occurs later in life”

MCH Needs Assessment

- Colorado conducted a needs assessment in 2010
- Identified nine priorities
- “Arrive in 5”



Colorado MCH Priorities 2011-2015

1. Promote preconception health among women and men of reproductive age with a focus on intended pregnancy and healthy weight.
2. Promote screening, referral and support for perinatal depression.
3. Improve developmental and social emotional screening and referral rates for all children ages birth to 5.

Colorado MCH Priorities 2011-2015

4. Prevent obesity among all children ages birth to 5.

5. Prevent development of dental caries in all children ages birth to 5.

6. Reduce barriers to a medical home approach by facilitating collaboration between systems and families.

Colorado MCH Priorities 2011-2015

7. Promote sexual health among all youth ages 15 - 19.
8. Improve motor vehicle safety among all youth ages 15 – 19.
9. Build a system of coordinated and integrated services, opportunities and supports for all youth ages 9 – 24.

Fortunately....

Numerous tools, models, and evidenced-based programs

- Cavity Free at Three (CF3)
- Delta Dental Media Campaign
- Workforce development – Dental loan repayment
- Early Childhood Framework
- COHOP, Colorado OH Outcomes Project (health home for the very young child)
- TOPS, Bright Smiles – addressing high need populations
- Etc.



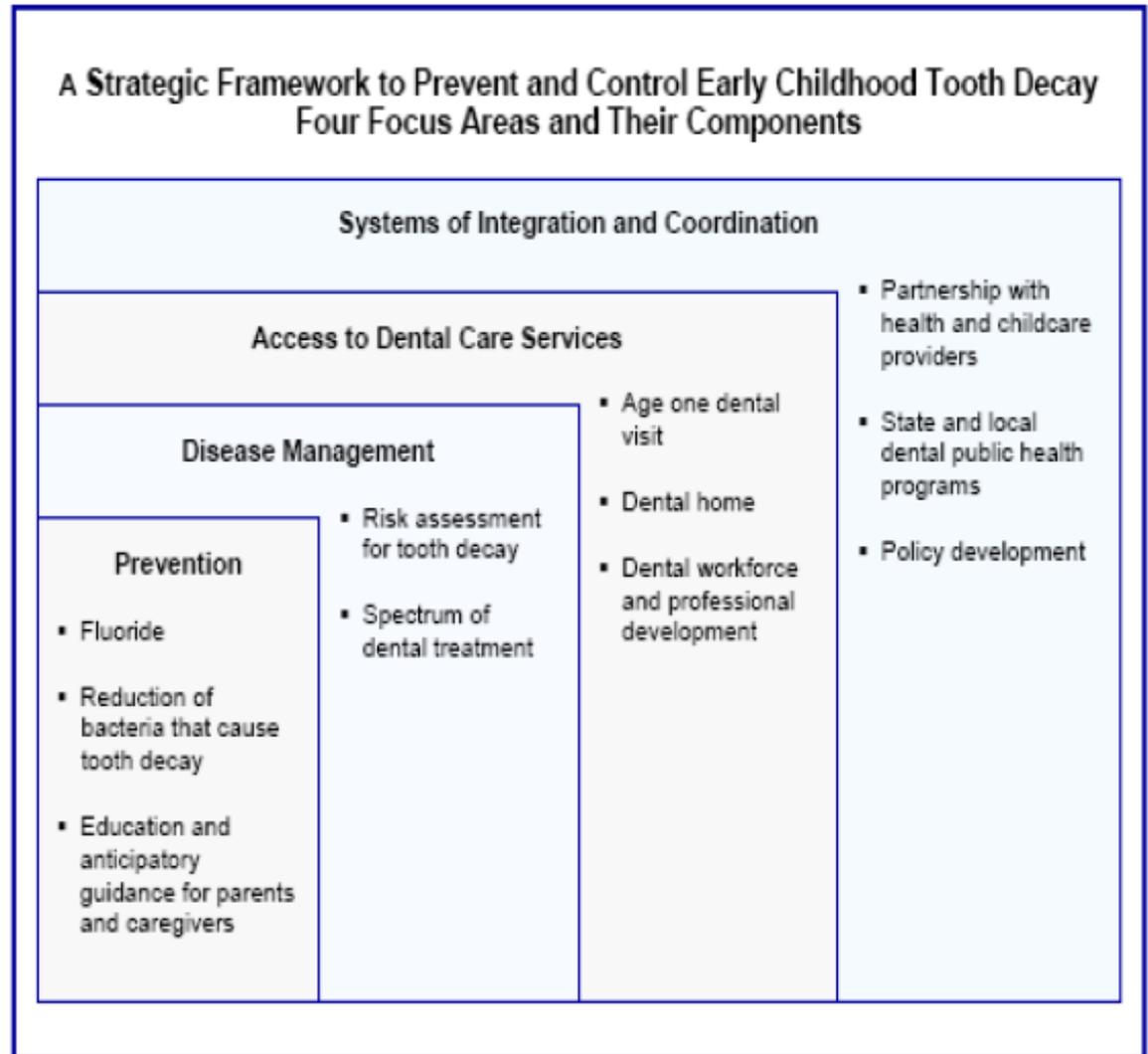
Important Considerations

- **Focus** on Prevention and Early Intervention
- Collaboration/partnerships
- Push down the pyramid
- Evidence Based, Promising Practices
- SoDH, The Life Course Model

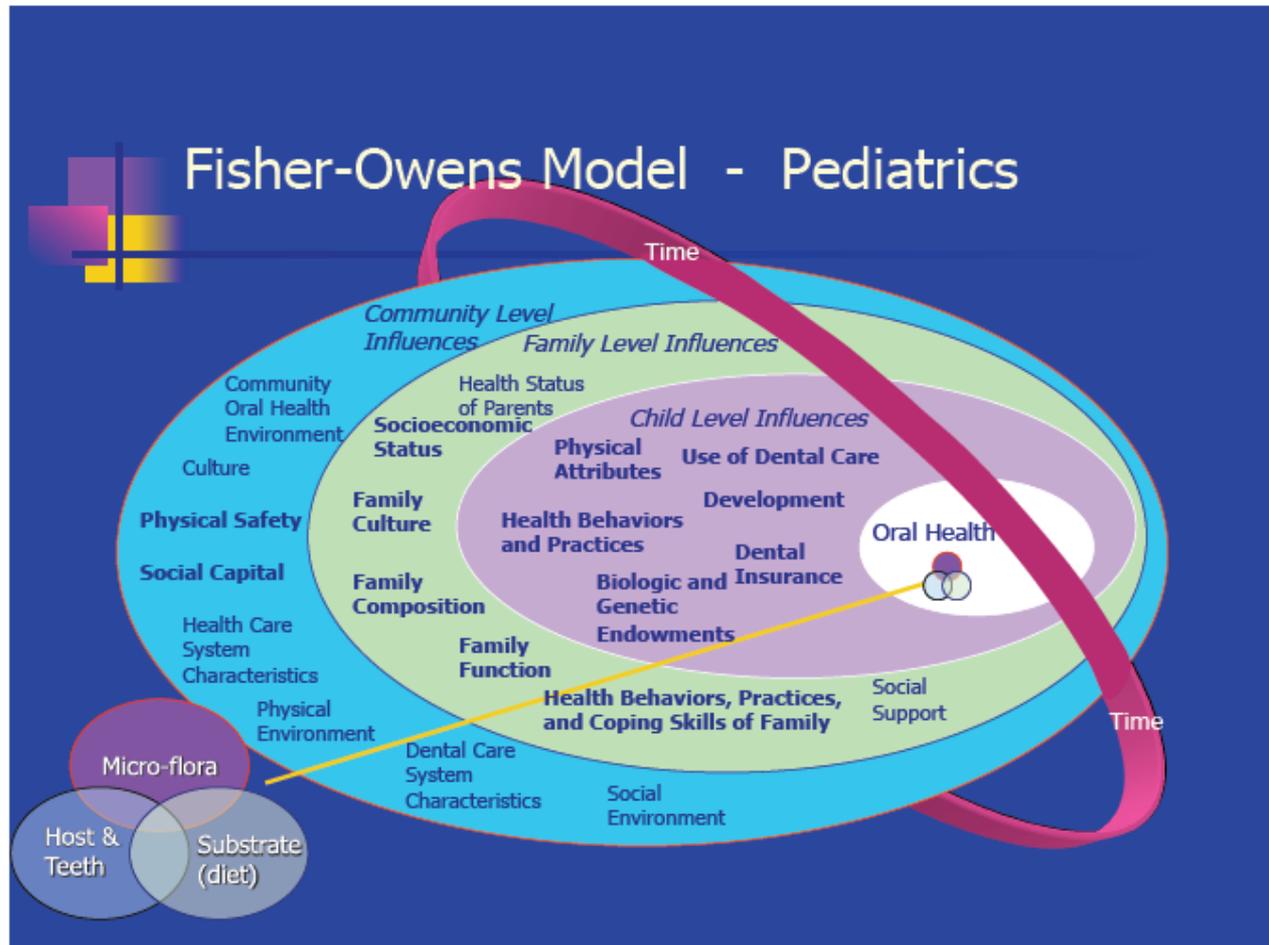


Best Practices

- Assoc of State and Territorial Dental Directors (ASTDD)
www.astdd.org/BestPractices
- Caries risk assessment/fluoride varnish programs
- Age 1 Dental Visit
- Dental home/medical home – primary care



Etiology of Dental Caries



Common Goal

There are roles to play for everyone including the family, the community the medical and dental team, public and private systems of care, and payers.



I can't do this alone!



Time for a Break



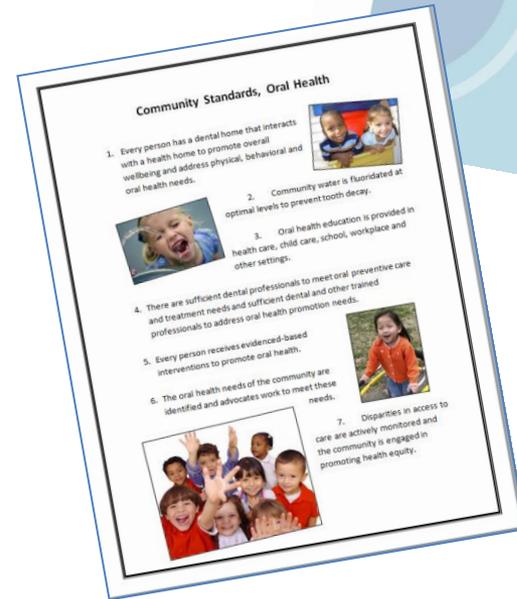
Priority Implementation Team

- Deborah Borek, Child and School OH Program Coordinator, **CDPHE**
- Heather Dubiel, Director of Early Childhood Initiatives, **CDPHE**
- Helene Kent, **Delta Dental of Colorado Foundation**
- Karen Savoie, Director of Education, **Cavity Free at Three**
- Linda Reiner, Director of Planning and Evaluation, **Caring for Colorado Foundation**
- Cora Sexton Wheeler, **Jefferson County Health Department**
- Michelle Hair, **Community Partnership for Child Development**
- Patricia Brewster-Willeke, Co-Director, **Rural Communities Resource Center**
- Karen Cody Carlson, Executive Director, **Oral Health CO**
- Kathleen McInnis, **San Juan Health Department**
- Dr. Jeff Kohl, **President, Colorado Academy of Pediatric Dentistry**
- Dr. Purvi Shah, **Pediatric Dentist**
- Dr. Katya Mauritsen, State Dental Director, **CDPHE**
- Jean McMains, Program Assistant, **CDPHE**

Two Big Ideas

Adoption of Oral Health Guidelines During Pregnancy and Early Childhood

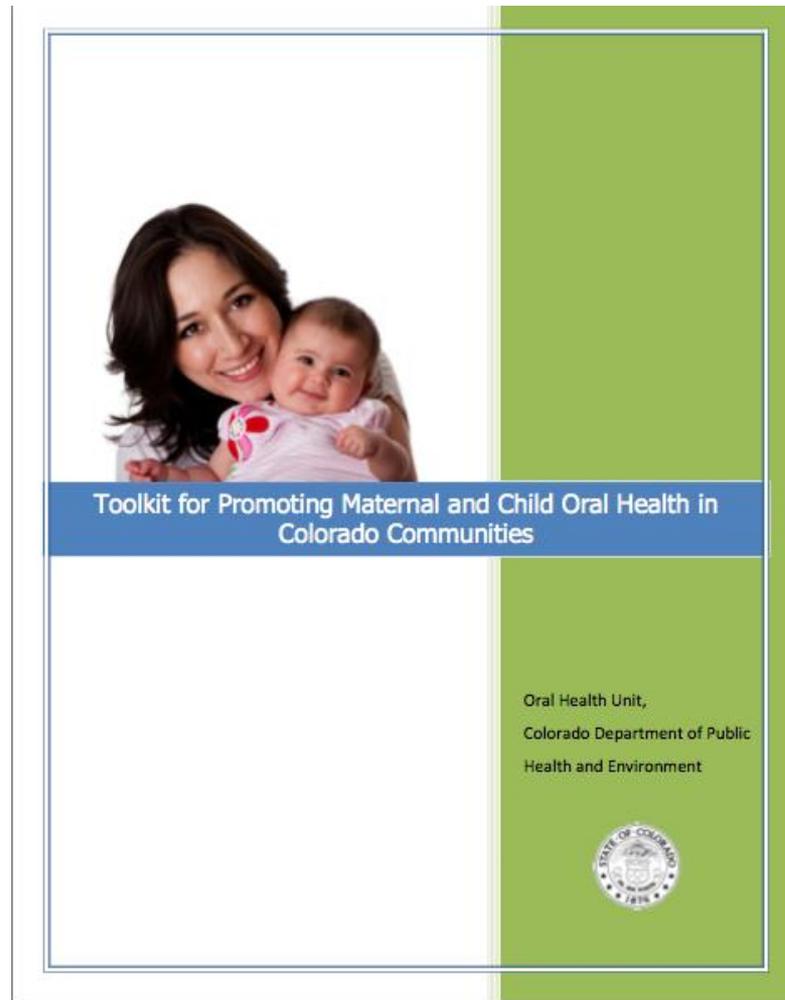
Community Standards, Oral Health



Toolkit

- Background Info
- Action Items
- Resources

www.oralhealthcolorado.org



Toolkit

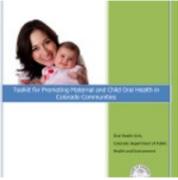
ABOUT US | CONTACT US

Oral Health Colorado
Connecting Colorado's Oral Health Advocates

HOME ABOUT **BE A SMART MOUTH** PARTNERS POLICY & ADVOCACY NEWS **JOIN**

Find a Provider | Diabetics | Young Children | Pregnant Women | Heart Health | Over 50 | **Resources**

Resources



Toolkit for Promoting Oral Health in Colorado Communities (CDPHE Oral Health Unit)

Community Water Fluoridation

- [The Pew Center for the States](#)

Data

STATE LEVEL LOGIC MODEL AND ACTION PLAN

MCH Implementation Team Action Plan
Oral Health- Decrease development of caries in children age birth to 5
3-Year Planning Period: 2010-2015

Context

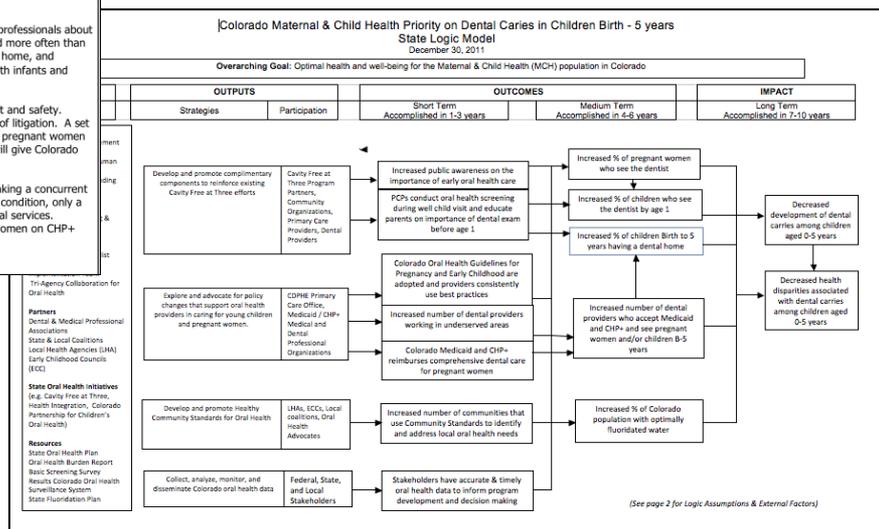
Oral health and general health are not separate entities. Oral health is a critical component of health and must be included as part of individual and community health programs. While dental health has been improving in the US, children have not benefited at the same rates as adults. The proportion of children between 2 and 5 years old with cavities increased 15 percent during the past decade and poor children continue to suffer the most from dental decay. Influences on the oral health status of children go beyond what occurs inside the mouth. Complex and interactive influences on oral health occur at the child level, family level and community level and involve biological, behavioral, psychological and social protective and risk factors (Owens-Fischer Model).

Several programs are addressing the oral health crisis of Colorado's vulnerable children. Colorado has recently undergone its periodic Maternal and Child Health needs assessment process. Of the nine issues identified as Colorado priorities for the next five years, one emerged that centered on oral health, "Prevent development of dental caries in all children ages birth to 5." An implementation team has formed and been given the unique opportunity to develop an action plan to positively impact the oral health of this segment of the population. In addition, oral health was recently named as one of the 10 Winnable Battles for the Colorado Department of Public Health and Environment.

Cavity Free at Three (CF3), founded in 2007, is a statewide effort to prevent oral disease in children from infancy to age 3 by educating health professionals about the consequences of early childhood caries and their role in preventing this disease. Since many children will see doctors and nurses earlier and more often than dentists, the CF3 model integrates caries risk assessments, anticipatory guidance, parent counseling and goal setting, establishment of a dental home, and fluoride varnish application into well child care visits. Training sessions lead by dental professionals give medical providers hands on practice with infants and toddlers for oral exams and fluoride varnish applications.

Both prenatal and oral health providers are limited in providing oral health care during pregnancy by their lack of understanding about its impact and safety. Many dentists needlessly withhold or delay treatment of pregnant patients because of fear about injuring either the woman or the fetus or fear of litigation. A set of Perinatal Oral Health Guidelines have been developed to assist health care professional in delivering safe and effective oral health services to pregnant women and their children based on a review of the current science-based literature. Adoption of these Guidelines by the Colorado Dental Association will give Colorado providers an easily accessible and recognized reference to agreed upon treatments protocols for pregnant women and young children.

Currently, Colorado Medicaid does not cover dental services for adults except in cases of emergency or when a condition of the oral cavity is making a concurrent medical condition worse, and even in these situations the services are very limited. Even though pregnancy is considered a concurrent medical condition, only a limit set of services are available and generally must be prior authorized. Medicaid clients age 20 and under have access to comprehensive dental services. Consequently, only pregnant women who are age 20 or younger would have access to Medicaid covered preventive dental services. Pregnant women on CHIP+ have access to limited dental services in emergency situations only.



Partners
 Dental & Medical Professional Associations
 State & Local Coalitions
 Local Health Agencies (LHA)
 Early Childhood Councils (ECC)

State Oral Health Initiatives
 (e.g. Cavity Free at Three, Health Integration, Colorado Partnership for Children's Oral Health)

Resources
 State Oral Health Plan
 Oral Health Burden Report
 Basic Screening Survey
 Health Colorado Oral Health Surveillance System
 State Foundation Plan

Highlights

Long Term Outcomes: Decrease caries and health disparities among children aged 0-5

Strategies

1. Develop and promote complimentary components to reinforce existing CF3 efforts
 - a) Increase public awareness on importance of early oral health care
 - b) PCPs conduct OH screenings and educate parents during well child visits
2. Explore and advocate for policy changes that support oral health providers in caring for young children and pregnant women
 - a) Adoption of Guidelines for Pregnancy and Early Childhood
 - b) Increase number of dental providers in underserved areas
 - c) Medicaid and CHP+ reimburses for comprehensive dental care for pregnant women

Highlights

3. Develop and promote Healthy Community Standards for Oral Health
 - a) Increase the number of communities that use the Community Standards to identify and address local OH needs
 - b) Develop Toolkit to support the Community Standards
4. Collect, analyze, monitor, and disseminate Colorado oral health data
 - a) Stakeholders have accurate and timely OH data to inform program development and decision making.

LOCAL LOGIC MODEL AND ACTION PLAN

MCH Implementation Team Local Action Plan	
Oral Health – Decrease development of caries in children age birth to 5	
3-Year Planning Period: 2012-2015	
Agency:	Program Contact:
Date Originally Developed:	Email:
Date Revised:	Phone:

Context/Background MIT + LPHA customizes

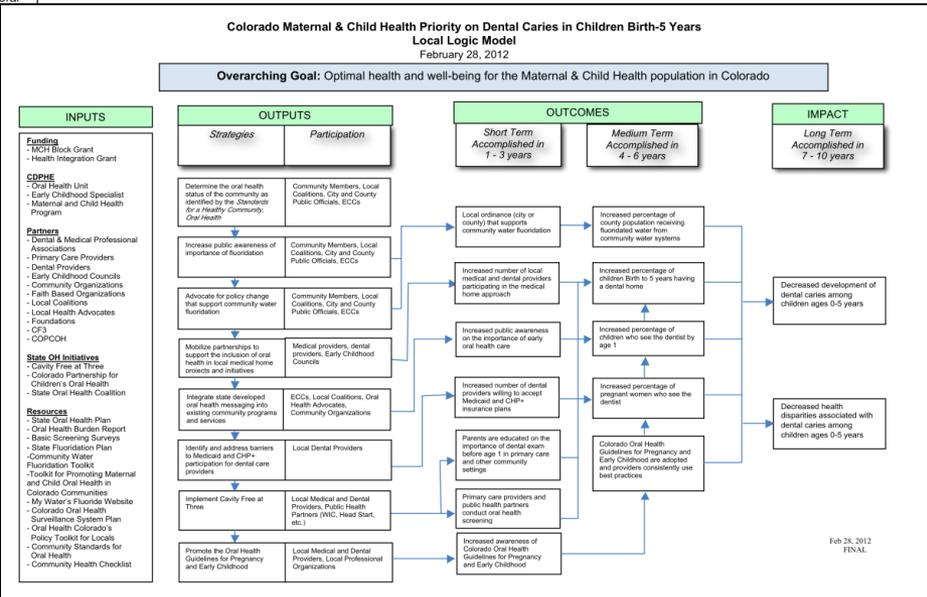
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Dental disease is largely preventable, and is less expensive when prevented than when treated. Prevention strategies are critical to a cost-efficient, effective system of dental care delivery. Targeting children at an early age with education, lifestyle changes and early intervention reduces future demand for dental services and health care system costs.

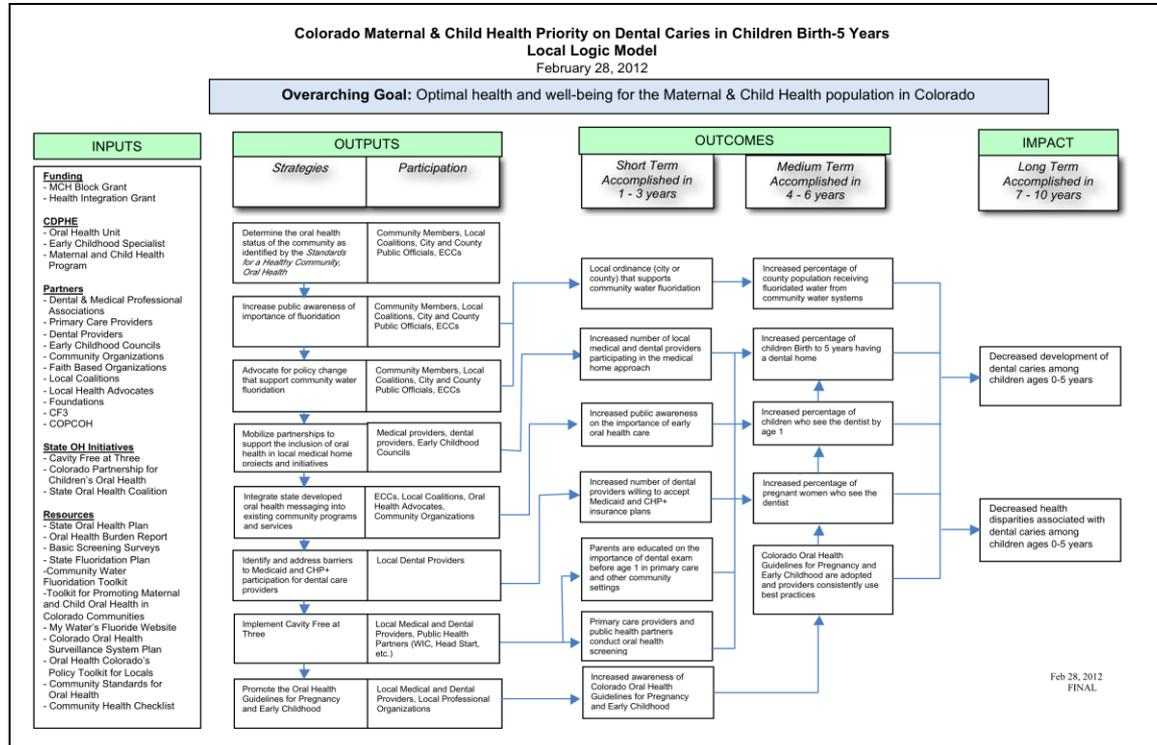
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There are already a number of systems serving young children and their families who could become a more integral part of oral health awareness and access. Such organizations include, but are not limited to: Head Start, child care, school nursing, home visitation, and the preventive and primary care services for children provided by Title V (Maternal and Child Health/Children with Special Health Care Needs).

Both prenatal and oral health providers are limited in providing oral health care during pregnancy by their lack of understanding about its impact and safety. If dentists needlessly withhold or delay treatment of pregnant patients because of fear about injuring either the woman or the fetus or fear of litigation. A set of health practice guidelines during pregnancy and early childhood have been developed to assist health care professionals in delivering safe and effective oral health services to pregnant women and their children based on a review of the current science-based literature. Adoption of these Guidelines by the Colorado



Local Logic Model



Long Term Outcomes

Decreased development of caries among children aged 0-5

Decreased health disparities associated with dental caries among children aged 0-5



Let's take a closer look...

- Logic Assumptions
- External Factors
- Inputs
- Strategies



Local Action Plan

MCH Implementation Team Local Action Plan Oral Health – Decrease development of caries in children age birth to 5 3-Year Planning Period: 2012-2015	
Agency: Date Originally Developed: Date Revised:	Program Contact: Email: Phone:
Context/Background MIT + LPHA customizes	
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We are here for YOU!



- Generalist Consultants
 - will continue to work with LPHA's during planning process and will review FY13 Operational Plans
- MIT's
 - Technical Assistance
 - Facilitation of learning opportunities