

SCHOOL BASED WEEKLY FLUORIDE MOUTH RINSE PROGRAM

Michael G. Tencza, DDS, PhD
Debi Grzeslo, RDH, BS

North Carolina Department Of Health And Human Services
Division Of Public Health
Oral Health Section



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Colorado Brown Stain



History: The Fluoride Story



Dr. Frederick McKay



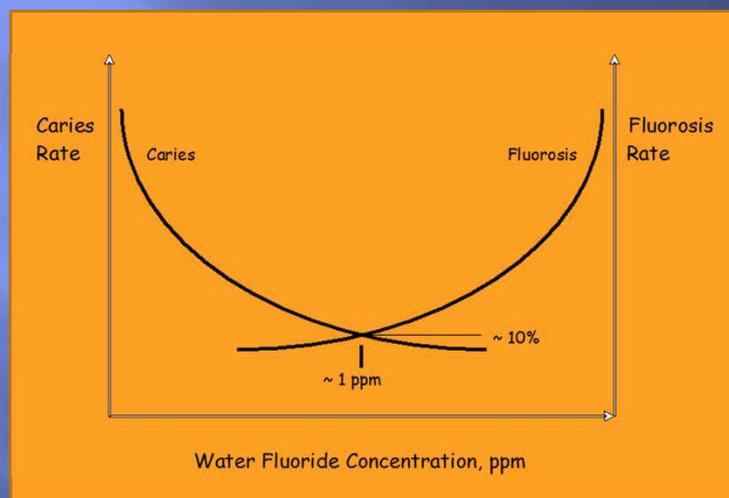
Dr. H.V. Churchill



Dr. Trendly Dean



Fluorosis vs Caries



Expert Committees and Systematic Reviews

- ❑ National Health and Medical Research Council, Australia (2008)
- ❑ National Research Council, U.S.A. (2006)
- ❑ Agency for Toxic Substances and Disease Registry, U.S. Public Health Service (2003)
- ❑ Forum on Fluoridation, Ireland (2002)
- ❑ Medical Research Council, U.K. (2002)
- ❑ University of York, U.K. (2000)
- ❑ Institute of Medicine, U.S.A. (1999)
- ❑ Locker: Health Canada (1999)
- ❑ City of Calgary, Calgary Regional Health Authority (1998)
- ❑ World Health Organization (1994)
- ❑ National Research Council, U.S.A. (1993)
- ❑ U.S. Public Health Service (1991)



Anti-Fluoridationists

“The simple truth is that there ‘s no scientific controversy over the safety of fluoridation. The practice is safe, economical, and beneficial.

The survival of this fake controversy represents one of the major triumphs of quackery over science in our generation.”

Consumers Union, 1988



Fluoride and Oral Health

- Toothpaste
- Professionally Applied Treatments
- Prescribed Custom Gel Trays and Mouth Rinse



Research

"The role of fluoride mouthrinses in the control of dental caries: a brief review." Adair SM (1988). *Pediatr Dent* 20:101-104.

- ❑ Fluoride mouth rinses averaged 30 % caries reduction in North American studies.
- ❑ 1970s: largescale studies of school-based programs suggest questionable benefit from a cost standpoint
- ❑ Recommends use for patients at high caries risk and in communities with a high caries rate
- ❑ Use in young children discouraged until swallowing reflex mastered



Research

"Fluoride mouthrinses for preventing dental caries in children and adolescents." Marinho et al. (2003). *Cochrane Database Syst Rev* 3:CD002284.

- ❑ This study used random effects meta-analysis of 34 previous studies (involving 14,600 children) to determine the effectiveness of fluoride mouth rinses to prevent dental caries in children.
- ❑ Studies included in the meta-analysis were controlled trials with blind outcome assessment, comparing fluoride mouth rinse with placebo or no treatment in children up to 16 years during at least 1 year.
- ❑ Results show that regular use of fluoride mouth rinse is associated with a clear reduction in dental caries in children.



Research

"Evidence-based clinical recommendations for fluoride use: a review."
Mani SA (2009). *Arch Oroface Sci* 4:1-6.

- ❑ Fluoride mouth rinse (FMR) programs in the 1970's and 1980's used as an alternative to community water fluoridation (CWF) in many countries
 - Caries reduction 31% in early studies
 - Later studies found reduced effectiveness
- ❑ Currently, all organizations recommend that FMR be used only in high caries risk individuals above 6 years of age
 - Contraindicated in children less than 6 years
- ❑ WHO (1994) suggests that in low fluoride areas, FMR programs in schools can be encouraged depending on the cost and caries status of the community.
- ❑ Fluoride mouth rinses should not replace toothpastes and should be used at a time different from toothpaste use for maximum effectiveness (ARCPOH, 2006).



Research

"Effectiveness of a School-based Fluoride Mouthrinse Program". K. Divoris, R.G. Rozier, and R.S. King.
J Dent Res 91(3):282-287,2012.

- ❑ 1,363 NC school children in grades 1 through 5
- ❑ Trend toward larger caries preventive benefit (55% versus 10% caries reduction) in high-risk schools versus low-risk schools
- ❑ Caries risk defined by school level mean untreated decay



Policy Statement

Policy Statement: "ASTDD supports the use of fluoride mouth rinse programs in schools for children age six years and older, when exposure to optimal systemic and topical fluorides is low, populations of children are at high risk for tooth decay and there is demonstrated support by school personnel."

"Best practice approach-use of fluoride: school-based fluoride mouthrinse and supplement programs." Association of State and Territorial Dental Directors (ASTDD) (2011b). Available at:

<http://www.astdd.org/docs/BPAFluorideMouthrinseSupplement.pdf>



NC OHS Policy Statement

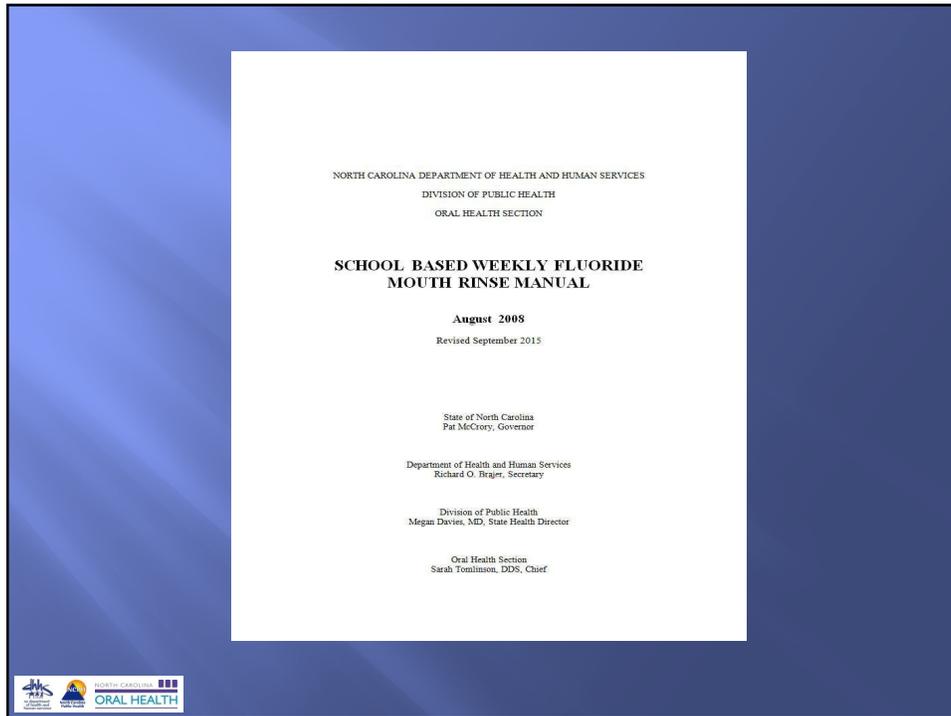
The North Carolina Oral Health Section recommends and promotes the use of a school based weekly fluoride mouth rinse program as an effective decay preventive measure.



Rationale

- 1974: Weekly Fluoride Mouth Rinse (FMR) Pilot at Winstead School in Wilson County. 34% reduction in decayed, missing and filled permanent teeth was achieved in three years.
- 2003-2004: NC OHS statewide dental survey compared children in the free/reduced lunch program, with children not qualifying for the free/reduced lunch program. Children from low income families in the FMR program had decay rates almost as low as children from higher income families who did not in the FMR program.





Highlights of the Fluoride Mouth Rinse Program (FMR)

- ❑ First through fifth or sixth grades participate
- ❑ Kindergarten does not participate
- ❑ Permission forms are required*
- ❑ Teachers monitor rinsing and maintains a classroom roster of participating students *
- ❑ Students rinse for 1 minute and allow 30 minutes before eating
- ❑ Participation should continue 28-32 weeks



Highlights of the Fluoride Mouth Rinse Program

- ❑ Mouth Rinse is pre-mixed, single dose containers of 0.2% sodium fluoride
- ❑ Flavors are multiple
- ❑ Cases are ordered by and shipped to the school
- ❑ The cost is free to the school and paid by the Oral Health Section
- ❑ Mouth Rinse must be kept in a locked, climate controlled storage



NORTH CAROLINA ORAL HEALTH

Fluoride Mouth Rinse Works!

A Statewide Dental Survey of North Carolina School Children confirms that school fluoride mouth rinsing prevents tooth decay!

- Children on free/reduced meals who rinsed had decay rates almost as low as higher income children did without rinsing.
- Children on free/reduced meals who did not rinse had higher decay rates.

The Oral Health Section of the North Carolina Division of Public Health provides the school-based fluoride mouth rinse program **FREE** for children at schools with higher risk for tooth decay.

For the greatest impact, schools must be supportive and compliant!

Highlights of improved program:

- First through fifth or sixth grade classrooms are asked to participate.
- Kindergartners do not participate, as their swallowing reflex is not yet fully developed.
- Participating children must have signed parental permission forms, which the schools will keep on file.
- Each teacher keeps a classroom roster of participating students.
- Students rinse for 1 minute each week and allow 30 minutes before eating or drinking.
- Students should participate in the mouth rinse program for 28-32 weeks.
- The mouth rinse solution is pre-mixed and comes in single-dose containers.
- There are several flavors to choose from.
- Napkins and trash bags are included in each case.
- Cases (288 doses per case) will be ordered by and shipped to the school.
- The cost of each case plus shipping is paid for by the Oral Health Section.
- Each case is 18" long by 9" wide by 7" high and weighs 11 pounds.
- Each dose is 0.2% pre-mixed fluoride solution.
- Mouth rinse must be kept in locked, climate controlled storage. It can freeze without damage, however, exposure to excessively high temperatures will cause evaporation.

Note: Children can safely use mouth rinse **and** continue to use toothpaste **and** drink fluoridated water!

For more information, contact: (Name of hygienist), RDH
Public Health Dental Hygienist, N.C. Oral Health Section
Email: (Hygienist's email address)
Phone: (Hygienist's phone number)



State of North Carolina, 100 North Salisbury Street, Raleigh, North Carolina 27601
Department of Health and Human Services, 100 North Salisbury Street, Raleigh, North Carolina 27601
Oral Health Section, 100 North Salisbury Street, Raleigh, North Carolina 27601
NORTH CAROLINA DEPARTMENT OF HEALTH AND HUMAN SERVICES



What is the Fluoride Mouth Rinse Procedure?

- ❑ Premixed single unit dose cups and napkins are distributed
- ❑ Children rinse for one minute
- ❑ Rinse is emptied into the cup
- ❑ Mouth is wiped with the napkin
- ❑ Napkin is placed into the cup
- ❑ Cups are discarded into a plastic waste bag provided with the cups and napkins.



Planning

- Assessing schools for FMR participation
 - Criteria for School Participation
 - Survey of Schools Proposed for Participation
- Meeting and offering FMR
 - School Superintendent or designee
 - Principals of participating schools
- Asking for a designated FMR coordinator for each school



Survey of Schools Proposed for Participation in FMR Program

NC Oral Health Section
Survey of Schools Proposed for Participation in the Fluoride Mouth Rinse Program

County _____

PHDH name _____

Please list below no more than five schools that meet the following FMR selection criteria
(additional comments can be added below)

1. Primary school grades 1 - 5 or 6
2. School's free and reduced lunch participants are 60% or more of the total population
3. Good school compliance is confirmed

	County	School name	School location (nearest town)	Approx. school pop. rinsing	Grades rinsing	%dmf(=0)/0 (FY05-06)	Good compliance is confirmed	Your ranking of need 1 thru 5
1								
2								
3								
4								
5								

Comments you feel warrant additional consideration
(e.g. whether or not school/town is in a fluoridated area, low SES, disparate population, %free/reduced lunch, etc.)

1	
2	
3	
4	
5	

Revised 10-14-2011



Planning, Meeting, and Offering FMR

- Superintendent or designee
 - Explain program
 - Gain approval and support
- Principals
 - Confirm grade levels, acquire enrollment numbers
 - Discuss permission forms
 - Discuss annual FMR information for parents
 - **Ask for a designated FMR coordinator**
 - Offer to address faculty/staff



FMR Coordinator

- Completes the Safety Assessment*
- Identifies a day of the week to rinse
- Develops a plan to distribute FMR
- Assures that FMR is always stored in a locked, climate controlled area
- Assures that classrooms are participating each week
- Orders FMR and maintains the inventory*
- Collects and submits the necessary paperwork





Implementation

- ❑ Review “North Carolina Oral Health Section Guidance for Schools”
- ❑ Order selected permission forms, rosters, and other forms related to safe use of fluoride
- ❑ Meet with the FMR coordinator
- ❑ Periodically check with the FMR coordinator



North Carolina Oral Health Section Fluoride Mouth Rinse (FMR) Guidance for Schools

Background

Dental decay is the most common chronic disease of childhood, more common than asthma. The appropriate use of fluorides is one of the best methods to prevent tooth decay. The NC Oral Health Section (OHS) 2003-2004 Statewide School Oral Health Survey demonstrated that a weekly fluoride mouth rinse program for elementary school children provided clear benefits in reducing health disparities. Low income (defined in the Survey as free/reduced lunch) children who participated in the OHS Fluoride Mouth Rinse (FMR) program had decay rates almost as low as children not on free/reduced lunch. In 2002 this program was discontinued due to budget constraints. The 2006 Legislature provided funds to re-establish this preventive program.

Only targeted schools with many children at highest risk for dental decay are selected. In order for the school to be selected, all classrooms in grades One through Five must participate in the program each week; teachers may not opt out of participating. If the school is an elementary school and houses grade Six, rinsing may be extended to grade Six. Kindergarten classes do not participate since children under six years of age may not have a fully developed swallowing reflex.

Forms

- **Fluoride Mouth Rinse Guidance for Schools** gives an overview for school personnel. One per teacher, one for the FMR Coordinator, one for the principal and copies for anyone else who may be handling the FMR.
- **Permission forms** - Each child participating in the FMR program must have a signed permission form filed in the permanent folder. The permission form is available on the OHS website.



School Monitoring and Collection of Class Rosters

- ☐ Beginning of the year
 - Order forms for the new school year
 - Update all materials and note changes
 - Review duties for the coordinator
 - Provide the annual reminder for parents
- ☐ Midway through the year
 - Ask the coordinator to provide the number of students rinsing
 - Check with the coordinator and assist as needed
- ☐ End of the Year
 - Collect FMR Rosters
 - Award certificates for participation and recognition
 - File permission forms in the appropriate places
 - Evaluate program





Required Forms*

- ❑ Permission forms
- ❑ Classroom rosters
- ❑ Safety assessment
- ❑ Mouth rinse inventory
- ❑ Order forms
- ❑ Packing slip for received fluoride
- ❑ Annual reminder for parents

Key Points

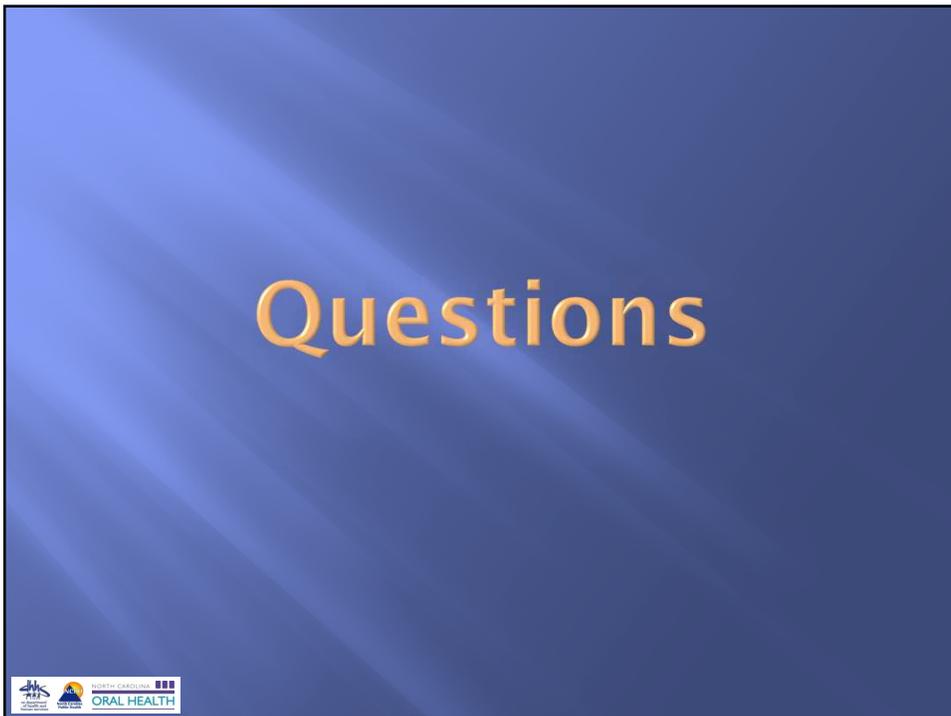
- ❑ The FMR Manual is a step-by-step instructional guide
- ❑ The FMR Coordinator is the liaison between you and the school.
- ❑ The FMR Program is provided at no cost to the school system
- ❑ The FMR Supplies must be ordered through the NC Oral Health Section
- ❑ Safety is essential at all times
- ❑ The NCOHS Public Health Dental Hygienist assigned to your region is a valuable resource



Appendicies

- ❑ More than forty
- ❑ All created to make the process easier
- ❑ Continually updated
- ❑ Forms in bold italics are not optional
- ❑ Include certificates of recognition and participation





Speaker Contact Information



Dr. Michael Tencza
michael.tencza@dhhs.nc.gov
919-707-5491 (Office)
919-819-8235 (Cell)



Ms. Debi Grzeslo
debi.grzeslo@dhhs.nc.gov
252-637-4178 (Office)
252-671-7611 (Cell)

