

**DRAFT**

PART 1: RECENT ACCOMPLISHMENTS IN PROVIDING DENTAL PREVENTION SERVICES AND OTHER ESSENTIAL DENTAL CARE AT MIGRANT HEALTH CENTERS

PART 2: DENTAL CARIES PREVENTION ACTIVITIES AND ATTITUDES AMONG MIGRANT HEALTH CENTER DENTAL SERVICE DIRECTORS

James A. Lipton, D.D.S., Ph.D. \*

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\* Study was conducted when employed as Chief Dental Officer, Division of Primary Care Services, BHCDA, HRSA. Current address is Office of Planning, Evaluation and Communications, National Institute of Dental Research, National Institutes of Health, Building 31, Room 2C-36, U.S. Department of Health and Human Services, Bethesda, Maryland, 20892.

Recent Accomplishments in Providing Dental Prevention Services and Other Essential Dental Care at Migrant Health Centers (Part 1); AND Dental Caries Prevention Activities and Attitudes Among Migrant Health Center Dental Service (Pt. 2)

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PART 1

The Migrant Health Program in the BHCDA has been the most concerned and active regarding the delivery of appropriate and relevant dental services to its mandated user population. Within the past two years, there have been several major accomplishments by the Office of Migrant Health, Division of Primary Care for the provision of dental care. I want to address three of these today.

The first accomplishment has been the compilation and publication of a directory of dental services at all migrant health centers funded by the BHCDA. This was completed with the excellent assistance of the National Migrant Referral Project. I assume that all of you have at least seen a copy of the directory. It was issued early in 1986, and contains such information as types of care provided, referral mechanisms, facilities and equipment, and other elements of the dental program for each site. Thus health care workers in any part of the country can become aware of particular centers to which migrants in need of specific types of dental services can be referred while in the area or traveling up or down stream. The Migrant Health Office is the only component of the Primary Care Division to have produced this valuable type of directory for dental or medical care delivered at BHCDA-funded health centers, and is certainly to be commended for it.

The second accomplishment by the Migrant Health Program in the dental field was obtaining the attitudes, knowledge, perceptions and behavior of migrant center dental program directors throughout the country about the dental situation in their area, and the effectiveness of preventive dentistry for their user population. This has enabled the Migrant Health Office to develop activities deemed useful by both the health center staff and central office to insure that adequate information is available to the dental providers regarding prevention through, for example, continuing education at the yearly migrant health center meetings, and necessary dental preventive programs are in existence.

The third major accomplishment was the implementation of a dental prevention initiative for migrant health centers in FY86. This laid out the bases for efficient and cost-effective programs to prevent the two major types of dental diseases, caries and periodontal diseases, in migrant children. Emphases were placed upon 1) determining those children who are at greatest risk for developing these two diseases; 2) prioritizing those in need; 3) establishing either onsite or offsite mechanisms for providing required prevention care; and 4) developing among migrants positive dental health behaviors and attitudes by taking into account the individuals' social and cultural group attitudes. Additional grant funds will be made available to those selected projects for the purpose of stimulating innovative ways of implementing more efficient and

effective dental prevention programs. A detailed presentation of the dental initiative is provided in the FY 86 Migrant Health Program Regional Allocation and Funding Expectations - Regional Program Guidance Memo 86-2.

## PART 2

In the time remaining, I would like to present the results of the survey conducted by the National Migrant Referral Project about the attitudes, knowledge and behavior of migrant health center dental program directors regarding prevention.

Of the total 124 BHCDA health centers active in 1985 which treated migrant workers and their families, 99 reported that some dental services were provided to migrants during the previous year, either onsite or through referral mechanisms to local practitioners. Preventive dental care is the only type of service mandated by law for the migrants. However, several migrant health centers do provide comprehensive dentistry to the farm workers during the few months each year when they are present in the area.

This study was an exploratory survey of all dental service directors in migrant health centers throughout the United States to discover their knowledge, attitudes and activities in the area of caries prevention. Our aims were to evaluate the effectiveness of current preventive techniques among the migrant

farmworker populations and to determine continuing education activities that would be most relevant for the migrant health center dental personnel in the future.

#### METHODS:

A twelve-item questionnaire was sent to all projects in the United States that reported some migrant dental users in 1984. This questionnaire was part of a larger survey of dental delivery systems at Migrant Health Centers. The specific questions and format employed had been developed earlier by the American Dental Association and the National Institute of Dental Research in surveying private dental and medical practitioners in the United States (1, 2).

#### RESULTS:

Usable responses were received from 66, or two-thirds, of the 99 health centers that reported at least some dental users during 1984. Seventy-nine percent (52 of the respondents) were either dentists or hygienists.

The first question posed was "At what level would you rate the current effectiveness for each procedure in preventing caries in migrant children in this country?" Results are shown in Table 1. Responses of "very effective", "effective", and "somewhat effective" were collapsed into the category "effective" for this table. The caries preventive procedures most frequently perceived to be effective for migrant children were, in order

of decreasing perceived effectiveness, tooth brushing, topical fluorides, and professional oral prophylaxis (85% each); oral health education for home care (81%); restoration of carious teeth (79%); nutrition and diet counseling (78%); fluoride dentifrices (77%); community water fluoridation and flossing (74%); and fluoride rinses (73%). The greatest lack of knowledge or uncertainty among the directors was found for pit and fissure sealants (29% "Don't Know"); dietary fluoride supplements (24%); and recall systems and fluoride rinses (23%).

In order to determine the perceived effectiveness for each of these procedures among those directors who felt knowledgeable enough to comment, we recalculated the percent "very effective" after eliminating those who had answered "Don't Know" to this question. Results are shown in Table 2. Based on those respondents who felt competent to answer this question, it appears that the most effective preventive dental procedures for the migrant population were perceived to be community water fluoridation (47% "very effective"); pit and fissure sealants and restoration of carious teeth (45%); school water fluoridation and flossing (41%); and tooth brushing (40%). Least effective procedures were felt to be fluoride dentifrices (15% "very effective"); and dietary fluoride supplements, nutrition and diet counseling, and fluoride rinses (16% each).

We next compared the perceptions of the migrant health center dental service directors with those of dentists in private

practice. Results from a study of 3,000 practicing dentists conducted by the American Dental Association in 1982 are found in the second column of Table 2. Comparison of the two groups show that community water fluoridation, dietary fluoride supplements, nutrition and diet counseling, tooth brushing, and flossing were perceived to be less effective by the migrant program dental service directors for migrant children relative to the general population. In contrast, school water fluoridation and pit and fissure sealants were reported by the migrant dental service directors as being more effective than by the private practitioners, for their respective patient populations. Fluoride dentifrices, topical fluorides, oral health education, and restoration of carious teeth were reported by the migrant directors to be about equally as effective as did the dentists in private practice.

From Table 3, we see that, when asked which single procedure has had the greatest effect on reducing the prevalence of caries, the migrant dental service directors believed that "improving tooth resistance with fluoride" and "elimination or reduction of bacteria through oral hygiene or mouth washes" were about equally effective (38% and 36%, respectively). Pit and fissure sealants were judged to have had the least effect (6%).

The remainder of the questionnaire was concerned with the prescription of dietary fluoride supplements for the migrant children. An equal number of centers prescribed supplements as

did not. Of those who did not, the most frequent reasons for not doing so was that the community water was fluoridated adequately, other fluoride therapies were preferred, and there were problems with patient compliance.

Dental service directors were next asked about the criteria considered when prescribing dietary fluoride supplements to children. Responses are shown in Table 4. The two most frequently considered factors were the child's age, and the amount of fluoridated water consumed (74% for each). Regarding the best age for starting fluoride supplements, 51% of the dental service directors recommended beginning either during the mother's pregnancy or at birth (Table 5). There was no general agreement as to when was the best age to discontinue dietary supplements, although the largest number of directors (42%) recommended between 9 and 14 years (Table 6).

The final question concerned the directors' belief about who should have the primary responsibility for prescribing dietary fluoride supplements for pregnant women and children of different ages. As shown in Table 7, the role of the dentist was felt to increase as the child got older, peaking for children who were over 6 years of age. However, the greatest number of directors believed that both the dentist and physician should be involved with children of all ages. Of interest was the finding that 27% of the directors wanted neither the dentist nor physician to prescribe fluoride supplements for pregnant



Women.

## CONCLUSIONS

1) A disquieting result of this survey was the relatively high percentage of dental service directors who reported that they did not know about the effectiveness of many procedures to prevent caries (Table 1); and the ages at which to start and to discontinue dietary fluoride supplements (Tables 5 and 6). This indicates a need for greater continuing education about dental caries prevention methods either in-house or through outside sources.

2) The perceived relative effectiveness of the various caries-prevention procedures reported by directors of migrant dental programs was considerably different from that reported by national samples of dentists in private practice. It appears that the relative usefulness of particular prevention procedures differs according to the population served. School water fluoridation and pit and fissure sealants are viewed as far more effective for caries prevention among migrant worker populations than among the general population in the United States. On the other hand, community water fluoridation, dietary fluoride supplements, nutrition and diet counseling, flossing, and tooth brushing were not considered to be as effective among migrants as they were for the general population.

Thus, from the perspective of the dental service directors of federally-funded migrant health centers, the caries prevention

procedures which are most effective for their patient populations relative to the general U.S. population appear to meet two criteria. First, the procedures do not require compliance on the part of the migrant patient but are performed solely by the dentist (i.e., sealants as opposed to fluoride supplements, counseling, flossing, and brushing). Second, the procedures can be controlled locally rather than regionally (i.e., fluoridation of the school water supply rather than the community source). This should not be taken, however, as a negation of the importance of community water fluoridation, fluoride supplements, nutrition and diet counseling, brushing, and flossing for the migrant populations.

Future studies should be conducted among dental service directors of federally funded migrant health centers as well as state and local programs. Ideally, these investigations should elicit information concerning the oral health status and needs of migrants, especially the children of farmworkers, in various parts of the country. Perceptions of the service directors could be compared with results of oral examinations. With the information about specific needs, the most appropriate and cost-effective approaches and methods for caries prevention can be developed for particular migrant population groups. This is especially important in light of the minimal funds available for providing dental care to all of the migrant workers.

## REFERENCES

(1) Gift, H. and Frew, R. Sealants: changing patterns. JADA  
112: 391-392, 1986.

(2) Gift, H., Milton, B., and Walsh, V. Physicians and caries  
prevention. JAMA 225: 1447-1448, 1984.

TABLE 1 - RESPONSES TO QUESTION "At what level would you rate the current effectiveness for each procedure in preventing caries in migrant children in this country?" (Choices = "very effective", "effective", "somewhat effective", "not effective", "don't know") (N=66)

Procedure	Percent Response		
	Effective *	Not Effective	Don't Know
Professional Oral Prophylaxis	85	3	12
Tooth Brushing	85	3	12
Topical Fluorides	85	3	12
Oral Health Education	81	4	15
Restoration of Carious Teeth	79	4	17
Nutrition and Diet Counseling	78	8	14
Fluoride Dentifrices	77	3	20
Community Water Fluoridation	74	12	14
Flossing	74	8	18
Fluoride Rinses	73	4	23
School Water Fluoridation	68	12	20
Pit and Fissure Sealants	67	4	29
Recall Systems	66	11	23
Dietary Fluoride Supplements	65	11	24

\* consists of responses "very effective", "effective", and "somewhat effective" combined

TABLE 2 - Responses of "very effective" to question in Table 1 after "don't know" respondents deleted, for migrant center dental service directors; and Responses of "very effective" to question in Table 1 for dentists in private practice \*

Procedure	Percent "Very Effective"	
	Migrant Directors (N=66)	Pvt Practice (N=3000)
Community Water Fluoridation	47	77
Pit and Fissure Sealants	45	10
Restoration of Carious teeth	45	41
Flossing	41	51
School Water Fluoridation	41	29
Tooth Brushing	40	54
Topical Fluorides	28	26
Oral Health Education	23	25
Dietary Fluoride Supplements	16	24
Nutrition and Dietary Counseling	16	22
Fluoride Dentifrice	15	16

\* Based on data from Gift, H. and Frew, R. Sealants: changing patterns. JADA 112:391-392, 1986.

TABLE 3 - RESPONSES TO QUESTION: "Based on current knowledge at the national level, dental caries result from an interaction of oral bacteria and diet with susceptible tooth structure. Which one procedure do you think has had the greatest effect in reducing the prevalence of caries?" (N=66)

Procedure	Percent
Improving tooth resistance with <u>fluoride</u>	38
Elimination or reduction of bacteria through oral hygiene or mouth washes	36
Increased dental <u>visits</u>	9
Dietary counseling and modification of eating habits	8
Pit and Fissure sealants	6
Don't know	3

TABLE 4 - RESPONSES TO QUESTION: "Do you consider any of the following criteria when prescribing dietary fluoride supplements for your child patients?" (N=66)

Criteria	Percent Who Consider
Age of child	74
Amount of fluoridated water consumed by child	74
Likely compliance of patient and parents	62
Adequacy of child's diet	50
Susceptibility of other family members to decay	49

TABLE 5 - RESPONSES TO QUESTION: "When do you think is the best time to start taking a dietary fluoride supplement?" (N=66)

Age	Percent Recommending
During mother's pregnancy	21
At birth	30
1 - 5 months	14
6 months - 3 years	8
As needed	9
Never	1
Don't know	17

TABLE 6 - RESPONSES TO QUESTION: "During what age range do you usually discontinue prescribing dietary fluoride supplements?" (N=66)

Age	Percent Recommending
Newborn to 3 years	0
4 - 8 years	8
9 - 11 years	18
12 - 14 years	24
15 years or older	9
Depends	17
Never	3
Don't know	21

TABLE 7 - RESPONSES TO QUESTION: Do you consider caries prevention activities, such as the prescription of dietary fluoride supplements, a primary concern of physicians, dentists, or both for the following groups of patients?" (N=66)

Group of patient	Percent Positive Response			
	Physician	Dentist	Both	Neither
Pregnant women	23	9	41	27
Children under 2 years	33	8	51	8
Children 2-6 years	3	26	67	4
Children 7-18 years	0	45	48	7