

Promoting Dental Health Care

H. GRANT SKINNER, M.D., M.P.H., and EUGENE E. SABOTTA, M.A.

RODEO TRAINS, films, and plastic-tooth jewelry generated active participation in a dental health campaign for primary school children in Stevens County, Wash., during 1959. The drive, conducted by the Stevens County Health Department, aimed at promoting remedial action for children in need of dental attention.

The campaign originated in a request from the county department to the Washington State Health Department for help in planning a program for children who had not been covered in a previous drive. Rapid dental inspections were being made periodically throughout the schools in the State by members of the local dental societies, each time renewing the interest of parents, teachers, and children in dental health. Here was the opportunity to channel that renewed interest into remedial action. The State health department came through with help in the way of advice on program design, methods of carrying it out, and presentation of results within a statistical matrix.

Plans drawn up under the direction of Dr. Merle B. Snyder, Stevens County health officer, called for a program spanning the school year. The focus was on the pupils' 6-year permanent molars, because these four teeth are important in the formation and development of the dental arch and have high decay risk. They are the first permanent teeth, arriving early in the primary school experience of the child. Followup by the county public health nurses,

May Alm and Belle Howard, was scheduled during the program year with the cooperation of the individual schools.

Early investigation showed conditions that augured success. The 6-year molars among children in the county frequently required dental attention, and, in many instances, neglect came only from ignorance of the need for repair or from apathy thought to be correctible.

The initial steps were directed toward alerting adults, especially teachers, and children to the need for dental care. The techniques included publicizing the program in the local newspapers, describing it to teachers, and supplying program material to the schools, where the message was then carried to the children.

Next, Dr. J. H. Kennedy, a local practicing dentist, conducted a rapid dental examination in the nine schools, with emphasis on repair needs of the 6-year molars. Other defects were noted too, and any fissure or pit requiring treatment was classified as a cavity.

As the drive gained momentum, the primary effort to stimulate motivation was applied to the children themselves. They participated actively by "joining" a rodeo train or a variation of the idea. The train is a cardboard engine with cars which the child boards with a ticket showing that he has molars intact or cared for by the dentist. The teacher was careful to allow those children who had lost their molars or who could not get repairs to get on eventually. Children riding the train were handed plastic 6-year molars to wear. Toothbrushes were also distributed. Other stimulating features were the filmstrip about "Elmer"—the little boy who learned to like his dentist—and educational materials, films, and slides from the local and

Dr. Skinner is chief of the division of local health services in the Washington State Department of Health at Seattle, in which Mr. Sabotta is a statistical analyst in the staff services analysis unit.

State health departments, the American Dental Association, and the National Dairy Council.

Results

Findings from followup of 183 children with 6-year molars showed that the response to the drive varied widely by school (see table). At one extreme was school A with an increase of 200 percent in the number of children with normal or filled 6-year molars, and at the other, school I showed no change in that number. For all schools as a group, however, the tally clearly indicates, even in this preliminary evaluation, that the program was effective. The total gains in children with normal, filled, or unerupted 6-year molars are statistically significant ($\chi^2=23.54$, $df=1$, $P<.01$). As shown in the table, of the 57 children with cavities after the program was initiated, a number have treatment plans underway, leaving us with a core of 35 children who require more followup. They represent 34.3 percent of the original group with cavities before the program began. The children of school I contributed 13.7 percent of the original group. A reexamination of the children's teeth is scheduled, making possible a fuller evaluation of the program's effectiveness in other dental treat-



As dental work was completed, each child got to put his picture in the train

ment and any change of status in the 6-year molars.

Assessment

Whether or not this study was a fair test of the program can be determined in the light of the program's purpose. The goal was to channel into positive remedial action interest in the children's health, which was periodically

Results of 6-year molar program in Stevens County, Wash., 1959

School	Number of children	Condition of 6-year molars before and after program					Disposition of children with cavities after program			
		Normal, filled, or unerupted		Cavities			Work underway	Appointment made	Promised cooperation	No response
		Before	After	Before	After	Percent change				
A.....	12	3	9	9	3	-66.7	1	0	0	2
B.....	28	11	19	17	9	-47.1	3	3	0	3
C.....	51	26	44	25	7	-72.1	1	3	0	3
D.....	13	9	12	4	1	-75.0	0	0	0	1
E.....	20	6	10	14	10	-28.6	0	5	1	4
F.....	15	6	8	9	7	-22.2	0	1	0	6
G.....	11	3	6	8	5	-37.5	1	0	2	2
H.....	10	8	9	2	1	-50.0	1	0	0	0
I.....	23	9	9	14	14	0	0	0	0	14
Total.....	183	81	126	102	57	-44.1	7	12	3	35
Percent.....	100.0	44.3	68.9	55.7	31.1	-----	3.8	6.6	1.6	19.1

reawakened by dental examinations carried out routinely in the schools.

Thus far, data received and tabulated indicate that, almost without exception, the children responded well. The reasons varied. Some were excited over the new toothbrushes. Others were more interested in qualifying to "join the rodeo train." These differences, of course, may reflect variations in emphasis among the teachers.

No direct information has come in about the effect of the program on parents. We know that in some schools, mothers' clubs donated toothbrush kits at the onset of the project, but this interest does not always persist. To sustain parental interest, it might be advisable to enlist the help of PTA groups.

Teachers, a key link in the campaign, responded favorably on the whole. In schools where the teachers were enthusiastic about our plans, invariably we found good progress in reducing cavities in the children's 6-year molars. In one school where the teacher had decided that the parents "would not or could not follow-through," little effort was made to bring the

program to the children. As a result, we found no change in that school in the number of children with cavities in their 6-year molars.

Followup activities were continued in 1960, with excellent cooperation in schools A, C, and D and some cooperation in F, G, and H, according to comments of the public health nurses who are working with them. The schools with the poorest record in 1959, B, E, and I, were inactive in 1960, but five new schools were added. Four of the new schools were exceedingly enthusiastic, and the fifth exhibited some cooperation.

In theory, the project is designed to appeal to everyone concerned with children's health. In this case, the field application of the program was oriented toward stimulating school personnel first, then students who had unmet dental needs. Although this limited application in Stevens County appears to give good results with an economy of effort and money, for optimum returns from the program, full cooperation must be achieved from all interested groups.

Hospitals to Report Adverse Drug Reactions

The Food and Drug Administration has announced that all 15 of the Public Health Service Hospitals have subscribed to its program for reporting unusual or adverse reactions to drugs. Nineteen other major hospitals have subscribed so far and many others are expected to do so.

The program is designed to develop information promptly on the untoward effects of drugs, especially the newer drugs. The Food and Drug Administration will use the information in resolving medical and administrative problems under the Federal Food, Drug, and Cosmetic Act.

Prior to release for general use, the Bureau of Medicine of the Food and Drug Administration evaluates the safety of new drugs.

Notwithstanding a careful check of the submitted data, wide clinical use may disclose effects not apparent in the investigative studies. When these become known, appropriate measures are taken to afford a greater degree of patient protection. Remedial steps necessary on the part of the drug manufacturer or distributor may vary from a change in the labeling, to alerting physicians and others responsible for patient care, to complete removal of the drug from the market.

The Food and Drug Administration has previously had to rely on the published literature and sporadic reports from physicians, institutions, and pharmaceutical manufacturers to supplement its own small staff in following up on experience with new drugs.