

Table 2.--Sugar Alcohols and Dental Caries--Continued

Study	Study Design	Subjects	Methods	Results	Comments																																													
Barnes et al., 1985 (Ref. 29)	Intervention to compare the efficacy of three fluoride products in order to select the most suitable for local conditions (WHO field trial - Thailand and French Polynesia)	In both locations approximately 750 children, 250 each of ages 6-7, 9-10 and 12-13 years (non-test)	<p>Approximate 3-year field trial in Thailand (1 group) and French Polynesia (4 groups) in most products tested both locations:</p> <p>Group 1: fluoride rinse, group 2: S-fluoride gum, and group 3: X (51N)-SOR-fluoride gum. Group 1 rinsed with fluoride rinse 1 min. every 15 days, Grps 2 and 3 chewed 4 sticks gum/day. Groups 1 and 2 began study in October 1978 and Group 3 in July 1978. In Dec. 1978, a fourth group began in Polynesia only: this group used a non-fluoridated gum with X (51N)-Sor sweeteners.</p> <p>The 12-13 year old Ss were given dental exams to determine caries prevalence at baseline and 9-10 yr old Ss who would be 12-13 yrs at end of study. Approx. 250 6-7 yr. olds examined at end of studies to determine caries prevalence trend in community irrespective of preventive agents. Baseline and final exam of DMFT and DMFS were done on 100 of each group approx 100 from each age and region examined at 18 months</p>	<p>Thailand: For each group, 7 yr old test Ss at baseline had considerably more dental caries than 7 yr old Ss examined at end of study.</p> <p>Thailand:</p> <table><tr><th>Group 1</th><th>2</th><th>3</th></tr><tr><td>Age at baseline vs final results</td><td></td><td></td></tr><tr><td>7</td><td>10</td><td>7</td></tr><tr><td>DMFT 1.26</td><td>1.63</td><td>0.96</td></tr><tr><td>DMFS 1.66</td><td>2.73</td><td>1.43</td></tr></table> <p>Polynesia</p> <table><tr><th>Group 2</th><th>3</th><th>4</th></tr><tr><td>Age at baseline vs final results</td><td></td><td></td></tr><tr><td>10</td><td>7</td><td>10</td></tr><tr><td>DMFT 0.77</td><td>4.16</td><td>0.71</td></tr><tr><td>DMFS 1.21</td><td>5.19</td><td>1.07</td></tr></table> <p>Polynesia</p> <table><tr><th>Group 2</th><th>3</th><th>4</th></tr><tr><td>Age at baseline vs final results</td><td></td><td></td></tr><tr><td>10</td><td>13</td><td>10</td></tr><tr><td>DMFT 3.69</td><td>9.55</td><td>2.48</td></tr><tr><td>DMFS 5.79</td><td>11.99</td><td>4.22</td></tr></table>	Group 1	2	3	Age at baseline vs final results			7	10	7	DMFT 1.26	1.63	0.96	DMFS 1.66	2.73	1.43	Group 2	3	4	Age at baseline vs final results			10	7	10	DMFT 0.77	4.16	0.71	DMFS 1.21	5.19	1.07	Group 2	3	4	Age at baseline vs final results			10	13	10	DMFT 3.69	9.55	2.48	DMFS 5.79	11.99	4.22	<p>Gum contained X, SOR, and fluoride which confounded the results for X or SOR themselves. Amount of S, X, and SOR in the gums was not reported.</p> <p>Large number of Ss dropped out of study due to change in schooling system, transport problems etc. in Thailand due to supply and use of SOR gum and logistic problems.</p> <p>Doubts raised about compliance in both regions. Authors try to account for the multiple confounding factors associated with field studies including inadequate randomization of subjects. Total dietary intake not indicated.</p> <p>In Polynesia, DMFT and DMFS scores indicated that fluoridated X-SOR gum was the only regime which has come close to controlling the caries process.</p> <p>As expected, the trend is that the group chewing SOR-X-fluoride gum has a lower caries rate than the group chewing S-fluoride gum, and both gum groups do better than just the group</p>
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