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Budgeting Dental Care for Indigent Children

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THERE is a lack of useful information concerning the time required to treat the elementary school children in the indigent programs, and, although it is obvious that any determination of the dental treatment requirements are influenced by unmet needs of the indigent population, it is desirable to obtain some estimate of the minimal requirements as a guide for future budgeting. A dental program for treatment of school age children of migrant agricultural workers in 1966 provided some information which can be used for this purpose.

The possibilities of using this information for other populations may be limited. Since the unmet dental health needs of the migrant agricultural population are probably the greatest in the United States,¹ the data from our study might be peculiar to an irrepro-

ducible population. Realizing these limitations we attempted to establish 1) a firm basis from which to estimate costs of professional time and facilities for a public dental care program for this indigent population, and 2) a baseline which can be used for purposes of comparison of other existing dental programs for the indigent. We hope that this information will be useful to those responsible for establishing dental health programs for children of indigent workers in other communities.

Our primary objective was to investigate the amount of dental care required by school age children of migrant agricultural workers who had previously received no treatment. Although x-ray examinations are usually not required to determine the dental needs of school age populations^{2, 3, 4} we did include x-ray examination since children used in our study had never before been examined, and we were going to treat the children.

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TABLE I

RESIDENCE OF CHILDREN

Age at Last Birthday	Number of Children	Mainland		Puerto Rico	
		Male	Female	Male	Female
5	6	2	4	0	0
6	15	8	2	3	2
7	13	2	5	2	4
8	14	3	4	2	5
9	11	3	4	4	0
10	11	1	3	4	3
11	10	0	1	4	5
12	9	2	3	1	3
TOTALS	89	21	26	20	22

Although more female children were examined than male, and more "mainlanders" than "Puerto Ricans," statistical analyses of the collected data did not show that these factors biased our study.

TABLE II

SUMMARY OF DATA ON UNITS OF WORK REQUIRED FOR TREATMENT WITH AND WITHOUT X-RAY FILM EXAMINATION

Age at Last Birthday	Number of Children	Primary Teeth	Number of Teeth		Primary Tooth Surfaces Needing Restorations		Permanent Tooth Surfaces Needing Restorations		Primary Teeth Indicated For Extraction		Permanent Teeth Indicated For Extraction		Total Units Needed Per Child		Percent Difference
			Permanent Teeth	Total Teeth	With X-ray Film	No X-ray Film	With X-ray Film	No X-ray Film	With X-ray Film	No X-ray Film	With X-ray Film	No X-ray Film	With X-ray Film	No X-ray Film	
5	6	106	15	121	34	16	3	3	1	1	0	0	9.5	6.5	31.7
6	15	246	79	325	134	99	21	15	2	1	0	0	13.6	10.7	21.3
7	13	163	121	284	94	57	23	21	9	5	0	0	13.4	9.8	26.9
8	14	153	160	313	106	75	44	44	5	2	0	0	14.4	11.8	18.0
9	11	91	148	239	82	84	22	22	7	1	1	0	13.9	12.8	7.9
10	11	55	211	266	32	46	43	35	8	2	0	0	11.3	10.7	5.3
11	10	20	207	227	23	14	52	42	1	0	1	0	10.9	8.6	21.1
12	9	6	220	226	5	5	69	57	0	0	2	2	11.5	10.3	10.4
TOTALS	89	840	1,161	2,001	510	39	277	239	33	12	4	2	12.7	10.5	17.4

12.7 units=3 hours 11 minutes

10.4 units=2 hours 36 minutes

3 hours 11 minutes—2 hours 36 minutes=35 minutes difference

An analysis of the surfaces needed for restoration is summarized in Table III. Although we expected that more surfaces would be required to be restored in the older children than the younger, we found that not to be true. The results are not typical. This can be attributed to the reluctance of the examiners to indicate teeth for extraction without the x-ray film diagnosis. This of course also brings into focus the problem of root canal treatment and subsequent restorations versus extractions. It is not the intent of the authors to relate to that problem. They feel such a discussion is needed but the priority should not be given to the general problem of root canal treatment. At age 9 there are more

surfaces needing restorations without x-ray than with x-ray diagnosis. It was felt with x-ray examination some primary teeth should be extracted. A graph showing the number of permanent tooth surfaces requiring restorations would be expected to increase by age. At age 9 there are 22 surfaces requiring restorations with x-ray film while at age 7 there are 23 and age 8 there are 44. This lack of progressive increase is attributed to the sample size.

Table IV shows the number of decayed teeth increase 19.6 percent by the use of x-ray diagnosis (4.6-5.5) while the units of work per child increases approximately the same amount 22.1 percent.

TABLE IV
SUMMARY OF DECAYED TEETH AND UNITS
OF WORK PER CHILD

Age at Last Birthday	Number of Children	Total Decayed Teeth (d+D) Per Child		Total Units of Work Per Child	
		Without X-ray Exam.	With X-ray Exam.	Without X-ray Exam.	With X-ray Exam.
5	6	2.5	3.5	6.5	9.5
6	15	5.0	6.7	10.7	16.3
7	13	4.8	6.0	9.8	13.4
8	14	4.3	5.9	11.8	14.4
9	11	4.9	5.5	12.8	13.9
10	11	4.1	4.5	10.7	11.3
11	10	4.2	4.8	8.6	10.9
12	9	5.2	5.6	10.3	11.5
ALL AGES	89	4.6	5.5	10.4	12.7