

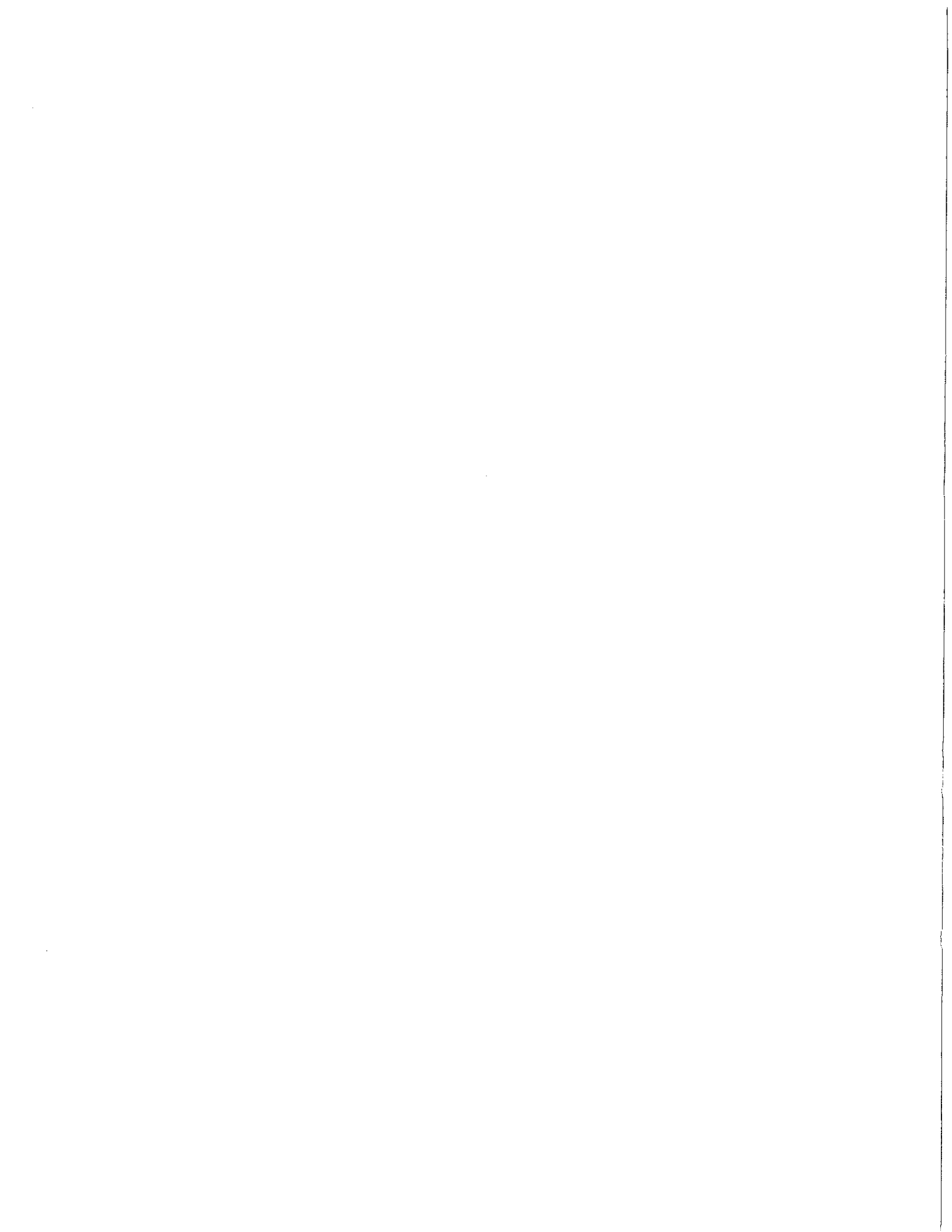
**INDIANA ORAL HEALTH SURVEY, 1992-1993**

**ORAL HEALTH SERVICES  
INDIANA STATE DEPARTMENT OF HEALTH**

**ORAL HEALTH RESEARCH INSTITUTE  
INDIANA UNIVERSITY SCHOOL OF DENTISTRY**

**FINAL REPORT  
July, 1994**

**This survey was conducted with the support of Governor Evan Bayh, Commissioner John C. Bailey, M.D. of the Indiana State Department of Health and Dean H. William Gilmore, D.D.S. of the Indiana University School of Dentistry.**



*Evan Bayh, Governor*

*John C. Bailey, M.D., State Health Commissioner*

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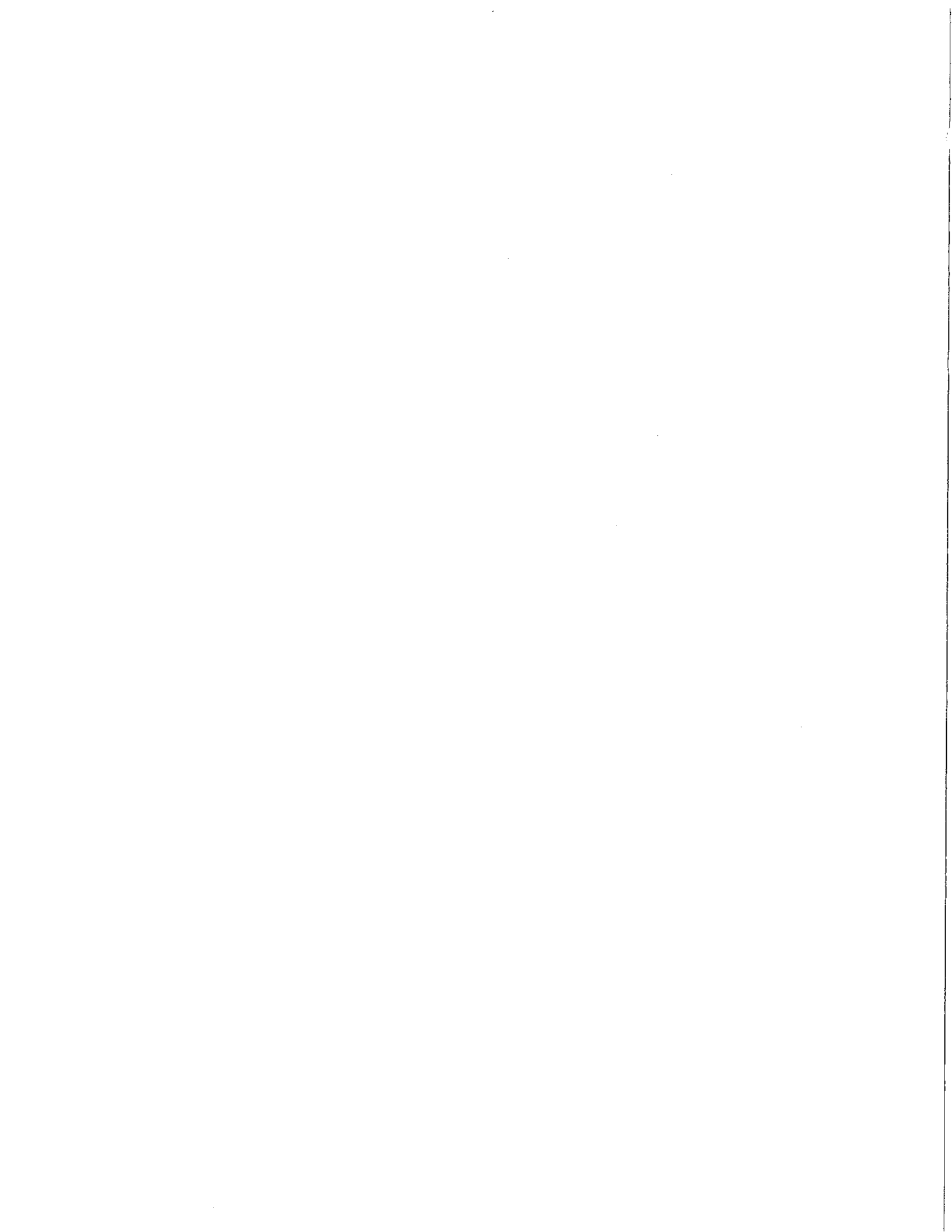
Indiana State Department of Health

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### Foreword

The purpose of the Indiana Oral Health Survey 1992-1993 final report is twofold. First, to present the results of the data both clinically and demographically and second; to include the protocol, informed consent letter, exams forms, etc. (appendices) to illustrate the preparatory phase of the project. Hopefully, this might be of benefit to others who may plan future surveys.

*"...helping Hoosiers attain the highest level of health possible."*



**ACKNOWLEDGEMENTS**

This project was a comprehensive undertaking which would not have been possible without the help of a lot of individuals and organizations. I want to thank first, Ms. Kathy Weaver, Mr. Bill White, and Dr. Judy Ganser of the Maternal and Child Health Division and Ms. Nancy Blough from the Indiana State Department of Health (ISDH) for their support and financial assistance with this survey. From the ISDH Oral Health Division (formerly the Dental Division), I am grateful for the assistance from the entire staff, but particularly from Dr. Charles E. Smith (Co-Investigator) and Ms. Eloise Moore who typed the original protocol and who assisted with the design of the examination form used. I also want to thank Dr. Brad Beiswanger (Co-Investigator), Dr. George Stookey and the staff of the Oral Health Research Institute for their help in protocol development, IRB submission, data tabulation; and Ms. Sharon Gwinn, Mr. Marc Beiswanger and Ms. Judy Weldon for their assistance with the dental instruments, supplies, and infection control procedures. Also thank you to Ms. Marilyn Richards and Ms. Sherry Smith for their assistance with the protocol and final report. With regards to the data, Dr. Barry Katz and Ms. Linda Timmerman were instrumental with the analysis and tabulation of the information gathered and their expertise is greatly appreciated.

Thank you also to all of the administrators, teachers and students in the participating schools who were most cooperative and helpful with this project. Finally, I want to express my sincere appreciation to Ms. Becky Cheetham, project coordinator and Mr. Jeff McClure, project recorder, without whose dedication and hard work this project would not have been possible.

Mark E. Mallatt, D.D.S.  
7/94

## **BACKGROUND**

Dental personnel in Indiana have collected data concerning the dental decay prevalence that our citizens have experienced for more than 30 years. Since 1958, statewide surveys to assess the oral health status of our school children, relative to decayed, missing, and filled teeth (DMFT), have been performed at approximate 10 year intervals. Data from these surveys indicate that a profound decline in dental caries has occurred. In the last 23 years alone, the decay rate declined nearly 70%. This can be attributed to a number of factors. These would include improved, and more effective, topical fluoride preparations, dentifrices and pediatric supplements, increased dental manpower that is also more accessible, increased emphasis on preventive programs and dental health education, increased availability of dental insurance and public awareness, and perhaps most importantly, an increase in the number of our citizens receiving optimally fluoridated water. With regards to the latter, the Dental Division of the Indiana State Department of Health for many years, has aggressively promoted and helped establish communal and school water fluoridation programs. As a result, Indiana has one of the premier water fluoridation programs in the world. Over approximately 98% of the people on communal water systems receive optimally fluoridated water and over 37,000 children are in school water fluoridation programs. The fact that the decay rate has dropped so dramatically can certainly be attributed to the above factors. Nevertheless, because of the valuable epidemiological data collected in past surveys, this fact can be documented and not merely surmised or estimated. This has been particularly helpful not only in determining success of past preventive programs, but also in determining future oral health objectives and target areas.

At the conclusion of the 1970 survey, suggestions were made to consider procedures which might reduce the cost and increase the efficiency of future surveys. These included reduction of sample size, a quota sampling procedure, a single examining team, and simpler examination forms. These suggestions were incorporated into the 92-93 survey as much as possible.

The Indiana Oral Health Survey 1992-93 was conducted by Oral Health Services of the Indiana State Department of Health in collaboration with the Oral Health Research Institute, Indiana University School of Dentistry. The program was initiated in the Fall of 1992 and concluded in the Fall of 1993 with all examinations being performed from December 1992 through June 1993.

## **PURPOSE**

The purpose of the 92-93 survey was threefold:

- 1) To target special population groups to assess their dental health needs. This would include minorities, the homeless, children in Maternal and Child Health (MCH) programs, medicaid eligible children, dentally indigent children, and preschoolers.
- 2) To obtain baseline data relative to the Oral Health Status Objectives for the year 2000.
- 3) To continue to evaluate the status of a sample of school age children relative to caries prevalence.

## **MATERIALS AND METHODS**

### **Protocol and IRB Submission**

The development of the protocol for this project was the joint effort by individuals from Oral Health Research Institute and Indiana State Department of Health (Appendix 1). This was submitted and approved by the Indiana University Institutional Review Board (Appendix 2) prior to implementation of the project.

### **Race**

The former statewide surveys were essentially random samples of all Indiana schoolchildren. The 92-93 survey was targeted toward racial-ethnic comparisons, thus the sample is not necessarily representative of all Indiana schoolchildren by percentage of population. The classification of the individuals examined were consistent with the guidelines in the most recent census. These include: White, Black, Hispanic, Asian or Pacific Islander, and North American Indian. Within the designated 11 minority counties (Allen, Delaware, Elkhart, Grant, Lake, LaPorte, Madison, Marion, St. Joseph, Vanderburgh, Vigo), schools were identified which had relatively high proportions of minority students. At the time of the examination the recorder would indicate the race. In the event the child was of mixed race, a determination was made, with preference given to the minority classification.

### **Selection of Schools**

The selection of schools to be surveyed was initially determined by Oral Health Research Institute by indicating which schools had relatively high percentages of minority students. This was to reduce the number of examination sites needed for travel considerations in order to obtain the 350 students in each grade level to achieve the goal number for the survey. This proved to be more difficult than expected. Many of the urban school systems are very large and receive many requests for extracurricular activities from outside organizations. The larger school systems had several chains of command before the actual principal or school nurse became involved; Superintendent, Assistant Superintendent, Health Services Nurse, Principal, School Nurse, Classroom Teachers, etc.

Several schools just did not want to be bothered with one more outside commitment unless some incentive was involved. The survey did not compensate the school in any way, except for some dental health curriculum materials. The participating students received a toothbrush, a dental health sticker and a parent advisory letter (Appendix 3), indicating the findings of the examination.

### **Geographic Area**

The child's residence as to the geographic area was not a primary factor in the 92-93 survey. The survey focused on the 11 counties in Indiana which have significant black and minority populations. The survey was not limited to those counties, but targeted them. The actual counties where data was

collected is presented in Appendix 4. For purposes of data tabulation, the counties were assigned their county code number as determined by the state of Indiana.

#### Classification of Residence

The classification of residence (urban vs. rural) was completed on the informed consent letter by the parent or guardian. The categories were rural (less than 10,000) or urban (more than 10,000). The parent or guardian were to have marked the appropriate box, but it was noted that some participants were not sure what their locale was considered and thus, did not answer the question.

#### Age

The child's age was based on his/her actual age in years at the time the informed consent/medical history letter was completed (see IRB submission, Appendix 2). The informed consent letter/medical history letter were completed within a month prior to the examination day. The target ages for the survey were intended to be 6, 8, 12, and 15. However, since schools were the primary source for data collection and since school classrooms were used, it was not always possible to obtain data strictly on 6, 8, 12, and 15 year olds. For example, in a sixth grade you might find 12 year olds in addition to 11 and 13 year old children. This should be kept in mind when reviewing the data tables, particularly since certain age groups appear to be few in number.

In a few schools, we were able to find personnel that had a keen interest in oral health and who greatly supported and promoted the project. In those schools the participation rate was much higher.

The survey also included 700 pre-school students primarily from the Indianapolis Day Nurseries and the kindergarten "round up" from the Gary School Corporation. These children received the same oral examinations as the older school aged children with the exception of the fluorosis exam. Although all schoolchildren were examined by a single examiner (MEM) multiple dentists were employed to do the exams for the kindergarten roundup because of the sheer number of examinations that had to be accomplished in a single day.

#### Selection of Students

The selection of students to be examined was determined by grade level at the participating school. The grade levels for the survey were first, third, seventh and tenth. The informed consent/medical history letter was distributed to the school a few weeks prior to the examination day. The principal or school nurse would distribute the forms throughout these grade levels. In the case where only a few consent letters were returned, the school would either send out additional notices to the parents or open the survey to the additional grade levels. In doing this we were able to survey that particular school with relatively reasonable numbers of students, even though children other than 6, 8, 12, and



15 were examined. This was of importance due to the travel time involved to many of the examination sites.

It was anticipated that those most in need of dental treatment might not wish to participate and thus would not return the informed consent. Also, unlike the 1950's, informed consent is now an expected and mandatory method for participating in any clinical study, survey, procedure, etc. Thus while some bias may result because of informed consent, it is nevertheless unavoidable.

#### **Educational Level of Parents**

The informed consent letter/medical history had asked for the educational level of the mother and father. The participants were to put an M for mother and F for father. With the rising number of divorced and single parents this seemed difficult for the participants to provide this information in some instances. It was determined for data analysis that the highest level of education in the household would be used for tabulation regardless of whether it was the mother or father.

#### **Water Source**

The informed consent/medical history letter asked for the source of the household water supply. The two responses were City or Well (other). This question was of limited value since we generally knew by their locale whether they had optimal fluoride in their water supply. The vast majority of participants in this survey were consuming optimally fluoridated water. The source of the household water in some instances was listed as city, however the residents drank bottled water. This fact might want to be taken into consideration on the next survey. It would appear that the usage of bottled water is on the rise.

#### **Mechanics**

##### **Necessary Approvals**

Before any of the selected schools were contacted, letters of support for the survey from various agencies were elicited. These organizations included:

1. Indiana State Department of Health
  - a. Oral Health Services
2. Indiana Dental Association
3. Indiana State Department of Education (Appendix 5)

Concurrently with the above, members of the Indiana Dental Association were informed in the monthly newsletter of the survey. Also the local dental society presidents were contacted so they could again inform their members in case they were contacted by parents with questions about the survey.

Once the list of schools and grade levels were determined, the superintendent of each school corporation was contacted by letter to explain the objectives of the survey and to gain permission to contact the principal of the selected school (Appendix 6). It was at this time we contacted the principal or the designated person the superintendent assigned.

### Examination Day

On the day of the examination, the examination team would arrive at the designated time. As mentioned previously, only one examination team was used in the schools. The team consisted of a dentist-examiner (Dr. Mark E. Mallatt), a data recorder (R. Jeffrey McClure), the study coordinator (Ms. Becky Cheetham) and when possible, a student "runner". The dentist's major responsibility was to perform a battery of examinations using the appropriate indices on those children who returned the signed informed consent/medical history letter.

The recorder's chief function was to accurately transcribe the data onto the recording forms (Appendix 7). The recorder also kept a daily log as to the schools visited, number of examinations completed, names of school personnel, and any problems or positive experiences. The team was responsible for setting up the equipment, staying on schedule and checking the completeness of the data. A "runner" was used if the study coordinator was not available to gather the students together and to give preliminary instructions. At times the school provided such a person (i.e., student, nurse, parent volunteer) which allowed the dentist and the recorder to concentrate on their primary duties.

A list of the equipment brought to the school by the examining team is given in Appendix 8. Every effort was made to obtain an adequate examination site at each school. Items which were sought included:

- 1, A room at least 15'x10' ideally with two doors for smooth traffic flow;
- 2, Electrical outlets;
- 3, Seating for students waiting to be examined; and,
- 4, Secluded area.

However, in many schools such facilities were not available. Many examination areas included stages, gymnasiums, short corridors. It should be remembered that all examination equipment was completely portable to allow access to such areas.

Once the examination area was found to be adequate, the equipment was set up and the first students were summoned. When possible, to facilitate the examinations, students were brought down in groups of eight to ten. Each student was given a caries examination beginning with the most posterior maxillary tooth on the upper left and proceeding in a patterned sequence to insure no tooth surface was inadvertently missed. The criteria established by Radike *et al.*, 1968 was

utilized for the caries examination (DMFT, decayed, missing, filled teeth; DMFS, decayed, missing, filled surfaces; deft, defs = deciduous teeth). The examiner then examined for gingivitis using the PMG Index (De La Rosa and Sturzenberger, 1976). The examiner began with the distal papilla of the most posterior maxillary tooth and proceeded around the arch to the corresponding tooth on the opposite side. The sites examined corresponded to the teeth identified in the Community Periodontal Index of Treatment Needs (CPITN), i.e., the four permanent first molars, the upper right permanent central incisor, the lower left permanent central incisor. These six teeth were scored using the gingivitis and fluorosis indices. From there the examiner continued back along the lingual aspect of the maxillary arch and then proceeded to the lower arch which was examined in the same manner.

The fluorosis examination (Tooth Surface Index of Fluorosis, Horowitz *et al.*, 1984) was performed next, with only permanent unrestored teeth being scored.

The oral pathology exam was marked normal unless the dentist indicated a problem.

Baby bottle tooth decay was marked no unless the dentist indicated there was evidence of this characteristic pattern of tooth decay.

After the examination was completed, the student received a toothbrush and a letter informing the parents of our findings. A copy of this letter was also given to the school nurse, and one copy was kept with the examination forms.

Once the examining team returned to the State Department of Health the forms were checked for completeness. A letter of appreciation was then mailed to the participating school to express gratitude for their cooperation (Appendix 9).

### **RESULTS (CLINICAL DATA)**

The results of this survey are presented in a series of tables. It should be noted that former statewide surveys were essentially random samples of all Indiana children. The '92-'93 survey targeted more minority populations and pre-schoolers and the sample employed may not have been representative of all Indiana children by percentage of population. Nevertheless, the results of this survey indicate that the decline in caries has continued since 1982 while establishing baseline data for surveys which will be conducted in the 21st century.

Table 1 presents the total caries data from the '92-'93 survey as well as the component surfaces (filled, decayed, missing, occlusal, smooth, interproximal, etc.). Of the total DMFS, filled surfaces account for about 69% and decayed surfaces 28%. As was expected, decay was more prevalent on the occlusal

surfaces than the buccal-lingual or mesial-distal surfaces. Table 1 also presents the deft and defs data for the deciduous teeth. It should be noted that a few very young children were diagnosed with one or more permanent teeth. This might be a result of a communication error between dentist and recorder, particularly since multiple examiners and recorders were used for the preschoolers. This did not affect the DMFS, DMFT components and thus the data are presented as called.

Tables 2 and 3 summarize deft and dmfs with regard to sex and age. One should keep in mind that preschool and grades 1 and 3 were targeted so ages 4-9 account for a large part of the sample.

Tables 4 and 5 likewise illustrate DMFT and DMFS relative to sex and age, as well as Age-Adjusted Means for girls and boys. Girls generally have higher DMFT, DMFS scores as was the case in this survey.

Tables 6, 7 and 8 summarize the decayed, missing and filled components (DMFS) by age and sex. The decayed and missing surfaces are similar for both boys and girls. However, it appears that the higher DMFT, DMFS scores for girls can be attributed to more filled surface.

Table 9 summarizes the caries prevalence for the deciduous dentition by age ranges and the permanent dentition by age ranges as well as DMFS components and surface types.

Table 10 summarizes the caries prevalence for the entire population surveyed by county.

Table 11 presents the number of children that had one or more carious lesion by specific age. Of the 1809 children surveyed in these ages 1337 or 74% did not have a carious lesion at the time of the examination.

Table 12 summarizes the number of children by age and race who had one or more pit and fissure sealants present. Generally sealants are placed in children age 6 and higher in the permanent dentition (only 4 children in this survey had sealants in deciduous teeth). The data indicate that a total number of 356 children out of 1823 (20%) age 6 and higher had sealants.

Tables 13 and 14 illustrate deft and defs for the entire population by age and race. Table 15 and 16 likewise present DMFT and DMFS by age and race. It appears that the caries prevalence is similar for both Blacks and Whites (slightly higher for Blacks in deciduous teeth but slightly lower in permanent teeth). The caries prevalence for Hispanics was higher than either Blacks or Whites.

Table 17 summarizes the deft and dmfs by race and age group, dmfs components, and surface types.

Tables 18, 19, 20, 21 and 22 summarize the deft, defs and DMFT, DMFS by age and education. For both the deciduous and permanent dentition there appears to be an inverse relationship concerning the decay

rate and the education of the parents/guardians. That is, the higher the educational level, the lower the decay rate.

Table 23 illustrates the number of cases that were diagnosed as Baby Bottle Tooth Decay (BBTD) by age, race, level of household income, type of residence, educational level of parents, and sex. Of 1121 children examined 7 years of age and younger, a total of 21 or 1.9% were diagnosed as having BBTD. There were more cases in black children than white children and slightly more in females than in males.

Table 24 summarizes the mean gingivitis scores by age, race, and sex. Gingivitis scores generally increased as age increased, but there was little difference between males and females.

Table 25 summarizes the scores using the Tooth Surface Index. It is interesting to note that the scores for the younger schoolchildren were generally higher than for the older children, which implies that the prevalence of dental fluorosis may be increasing as suggested by some reports in the literature.

**RESULTS (DEMOGRAPHIC DATA)**

The demographic data obtained from the back of the informed consent letter are voluminous with each category tabulated by age and race. Some of this has already been addressed in the clinical data section. The following is a brief summary of the remainder of the data. One should keep in mind the differences in frequency by race in interpreting these data.

**Medicaid Enrolled (Or Eligible)**

Total		Race	Yes	No	Unknown
Yes	21.8%	Asian (A)	0.0%	52.94%	47.06%
No	70.1%	Black (B)	35.28%	54.16%	10.56%
Unknown	8.1%	Hispanic (H)	22.05%	69.29%	8.66%
		White (W)	14.84%	78.91%	6.25%

**Enrolled in Dental Insurance Plans**

Total		Race	Yes	No	Unknown
Yes	51.7%	Asian (A)	64.71%	29.41%	5.88%
No	44.1%	Black (B)	51.68%	40.62%	7.70%
Unknown	4.2%	Hispanic (H)	37.01%	60.63%	2.36%
		White (W)	52.83%	44.71%	2.47%

Visits to the Dental Office

Total		Race							
Info N/A	2.2%	<u>A</u>	5.88%	<u>B</u>	4.60%	<u>H</u>	0.79%	<u>W</u>	1.00%
At least once/year	67.8%	<u>A</u>	64.71%	<u>B</u>	60.00%	<u>H</u>	59.84%	<u>W</u>	72.72%
Emergency only	15.6%	<u>A</u>	11.76%	<u>B</u>	15.03%	<u>H</u>	25.98%	<u>W</u>	14.97%
Never	14.4%	<u>A</u>	17.65%	<u>B</u>	20.37%	<u>H</u>	13.39%	<u>W</u>	11.31%

Fluoride Usage (Total)

	Yes	No	Unknown
Office applied	41.3%	55.5%	3.2%
Fluoride toothpaste	89.7%	7.0%	3.2%
Fluoride mouthrinse	24.6%	72.2%	3.2%
Fluoride tablets or drops	2.7%	94.1%	3.2%
Combination of one or more above	92.4%	4.4%	3.2%

**SUMMARY**

The total number of children examined in the 1992-93 survey was 2455. The data is arranged in a variety of ways (i.e., total number with permanent or deciduous teeth, age ranges, by county, age 5 and over, etc.) so one must look at the specific data table for the particular information sought. The conclusions drawn from the data are as follows:

- The decay in both deciduous and permanent teeth continues to decline in Indiana. See tables below.

**Comparison Of Dental Caries Prevalence In 1992 With  
That Observed In Prior Surveys**

Age of Children	1958-59 Survey		1971-72 Survey		1981-82 Survey		1992-93 Survey	
	Children Examined	Average DMFT	Children Examined	Average DMFT	Children Examined	Average DMFT	Children Examined	Average DMFT
7	1709	0.99	833	0.65	299	0.18	236	0.25
8	1779	1.77	952	1.11	492	0.46	212	0.37
9	1550	2.50	944	1.55	534	0.67	304	0.56
10	1494	3.17	1002	1.98	582	0.93	73	0.68
11	1438	3.95	1002	2.51	584	1.19	77	0.86
12	1406	4.05	965	3.16	583	1.48	252	1.39
13	980	6.26	1042	3.96	510	1.92	230	1.47
14	922	7.20	950	4.77	504	2.24	44	2.14
15	861	8.51	767	5.19	489	3.02	58	2.59
16	816	9.16	893	5.96	505	3.42	69	2.58
17	571	10.02	972	6.58	544	4.08	11	3.64
18	215	10.47	714	7.10	498	4.61	3	3.00

**Deciduous Dentition**

Age of Children	1971-72 Survey		1981-82 Survey		1992-93 Survey	
	Number Examined	Average deft	Number Examined	Average deft	Number Examined	Average deft
7	833	4.72	299	1.86	240	1.70
8	952	6.66	492	2.21	212	1.52
9	944	7.29	534	2.27	300	1.52
10	1002	6.18	582	2.26	67	.99
11	1002	3.59	584	1.59	39	.59

- Filled surfaces account for 69% of the DMFS; decayed surfaces 28%.
- Of the DMFS, the occlusal component accounts for about 62%.
- Girls and boys have similar numbers of decayed surfaces, however girls have more filled surfaces. Thus, DMFS scores are higher for girls.

Girls DMFS	=	1.34	Boys DMFS	=	1.04
Decayed surfaces	=	0.34	Decayed surfaces	=	0.34
Filled surfaces	=	0.96	Filled surfaces	=	0.76
Missing surfaces	=	0.04	Missing surfaces	=	0.02

- Approximately 74% of the children examined age 6 and higher did not have a carious lesion at the time of the examination.
- 20% of the children age 6 and higher had one or more pit & fissure sealant present.
- The caries prevalence is similar for Blacks and Whites but higher in Hispanics.  
DMFS: Black = 0.86    Hispanic = 1.18    White = 0.94
- As the educational level of the parents increased, the DMFS rate decreased.
- Baby Bottle Tooth Decay prevalence was 1.9% (21 out of 1121 children examined age 7 or younger).
- Gingivitis scores tend to increase with age but there is little difference between males and females.
- Dental fluorosis (mild) was generally higher in younger school children than the older schoolchildren.
- 22% were eligible or enrolled in Medicaid.
- 52% were covered by dental insurance plans.
- 68% visit a dental office at least once a year.
- 41% receive topical fluoride applications at the dental office.
- 90% report use of a fluoride toothpaste.
- 25% use a fluoride mouthrinse.
- 3% use fluoride tablets or drops.
- 92% use one or more of the above fluoride products.

#### Healthy People 2000 National Health Promotion and Disease Prevention Objectives

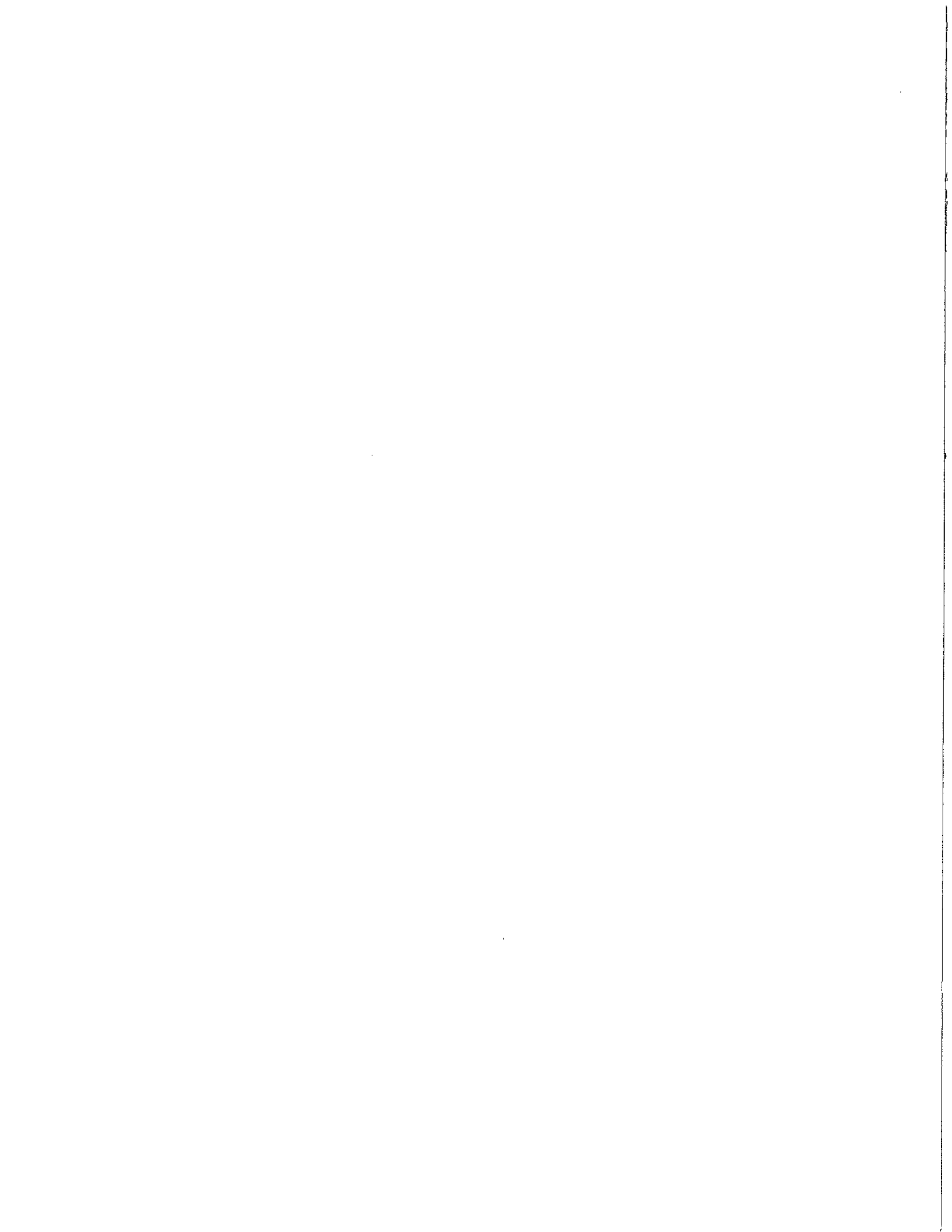
The 92-93 was designed to address the general components for as many of the oral health objectives as possible with regard to children. These are summarized below:

- 13.1 Reduce dental caries (cavities) so that the proportion of children with one or more caries (in permanent or primary teeth) is no more than 35 percent among children aged 6 through 8 and no more than 60 percent among adolescents aged 15. (Baseline: 53 percent of children aged 6 through 8 in 1986-87; 78 percent of adolescents aged 15 in 1986-87)

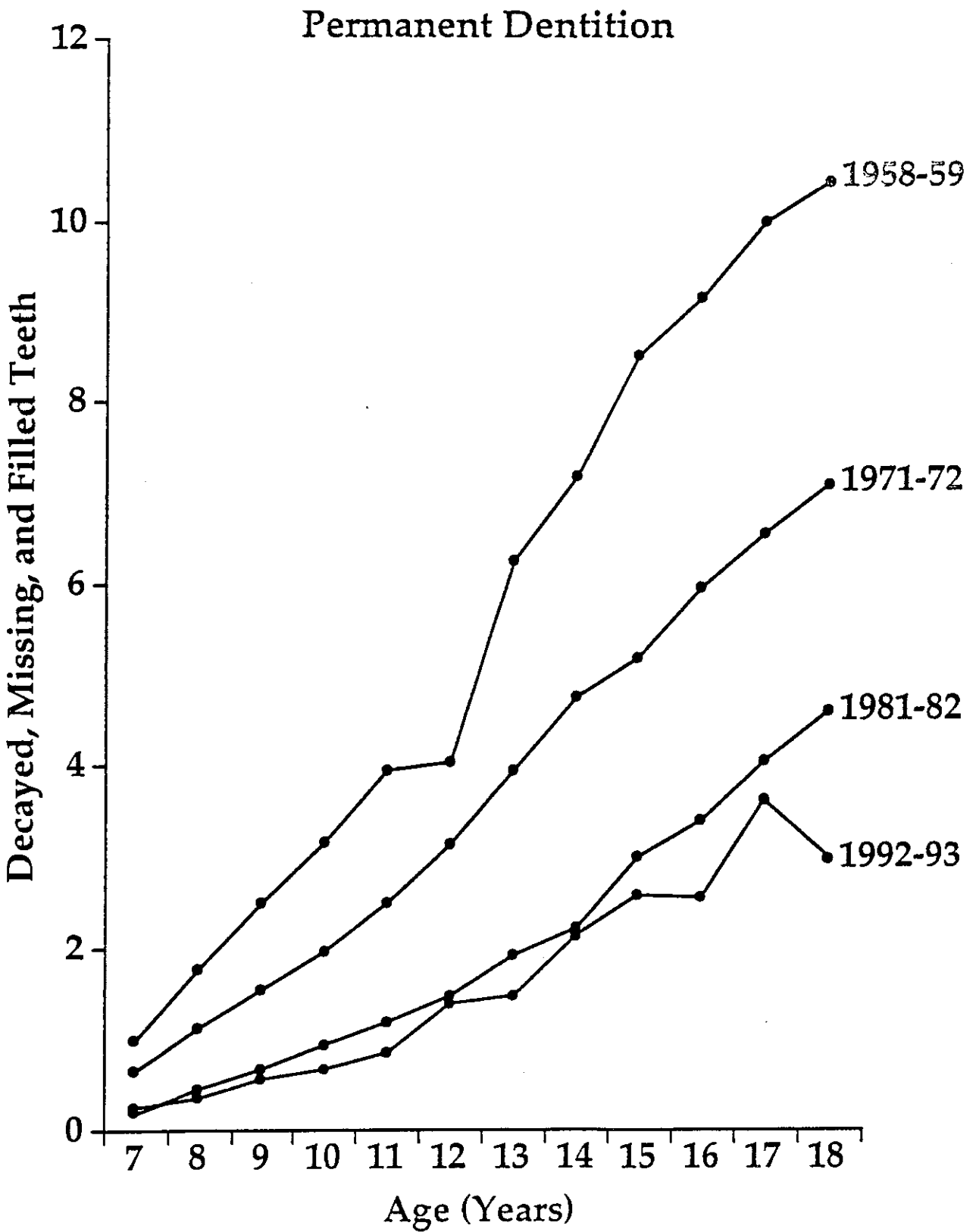
Indiana: 49% aged 6-8; 71% aged 15



- 13.2 Reduce untreated dental caries so that the proportion of children with untreated caries (in permanent or primary teeth) is no more than 20 percent among children aged 6 through 8 and no more than 15 percent among adolescents aged 15. (Baseline: 27 percent of children aged 6 through 8 in 1986; 23 percent of adolescents aged 15 in 1986-87)  
Indiana: 25% of children aged 6-8; 31% aged 15 (very small sample)
- 13.5 Reduce the prevalence of gingivitis among people aged 35 through 44 to no more than 30 percent. (Baseline: 42 percent in 1985-86)  
Indiana: No data collected for this age group; however, baseline data for children was collected for future surveys.
- 13.8 Increase to at least 50 percent the proportion of children who have received protective sealants on the occlusal (chewing) surfaces of permanent molar teeth. (Baseline: 11 percent of children aged 8 and 8 percent of adolescents aged 14 in 1986-87)  
Indiana: 19% aged 8; 39% age 14 (very small sample); 20% overall children 6 and over
- 13.14 Increase to at least 70 percent the proportion of people aged 35 and older using the oral health care system during each year. (Baseline: 54 percent in 1986)  
Indiana: 68% report visiting a dental office at least once a year
- 13.10 Increase use of professionally or self-administered topical or systemic (dietary) fluorides to at least 85 percent of people not receiving optimally fluoridated public water. (Baseline: An estimated 50 percent in 1989)  
Indiana: 92% report using some form of topical or systemic fluoride
- 13.11 Increase to at least 75 percent the proportion of parents and caregivers who use feeding practices that prevent baby bottle tooth decay. (Baseline data available in 1991)  
Indiana: 1.9% (21 out of 1121 children examined age 7 or younger) had baby bottle tooth decay

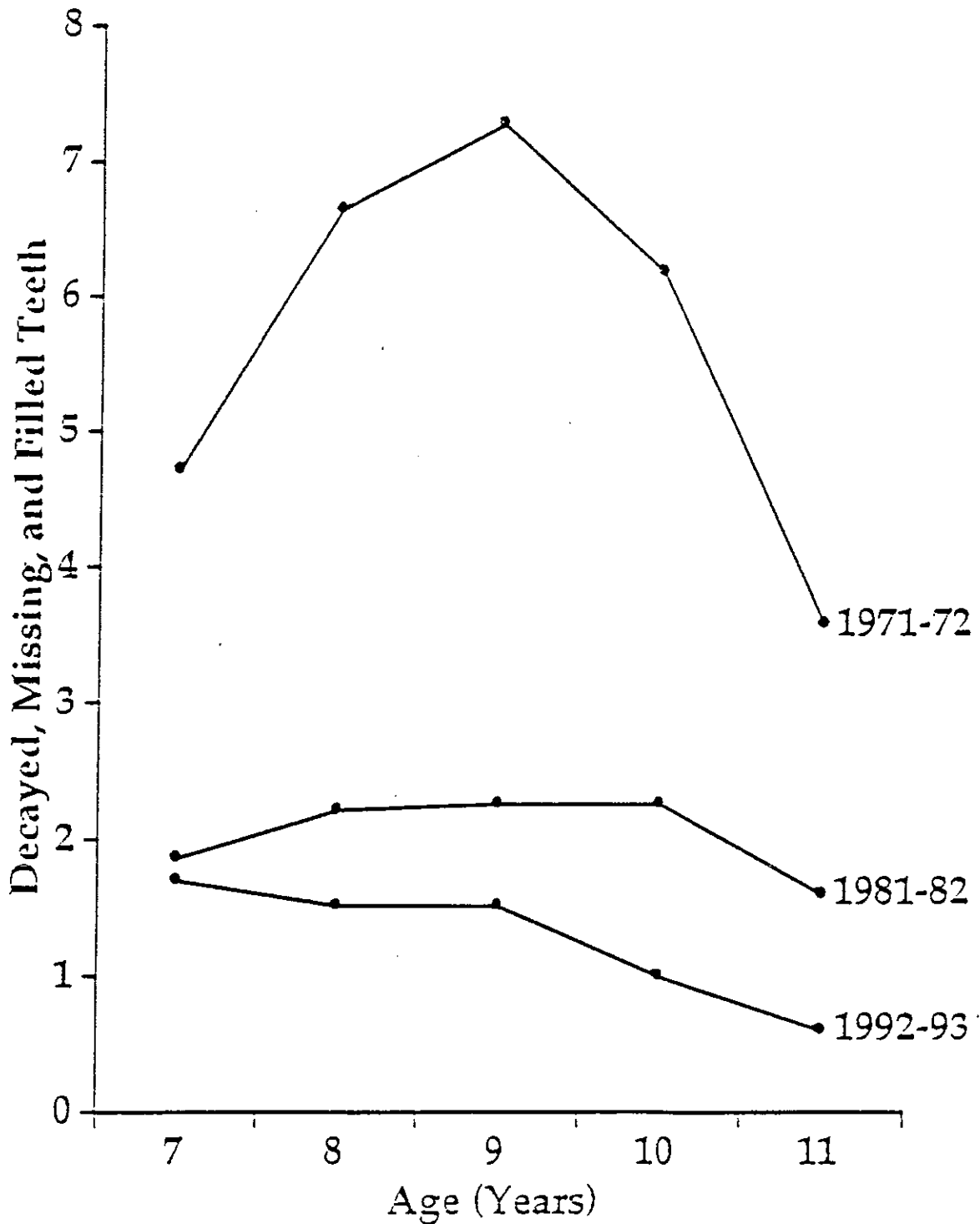


# Prevalence of Caries in Indiana Children: 1958 to 1993

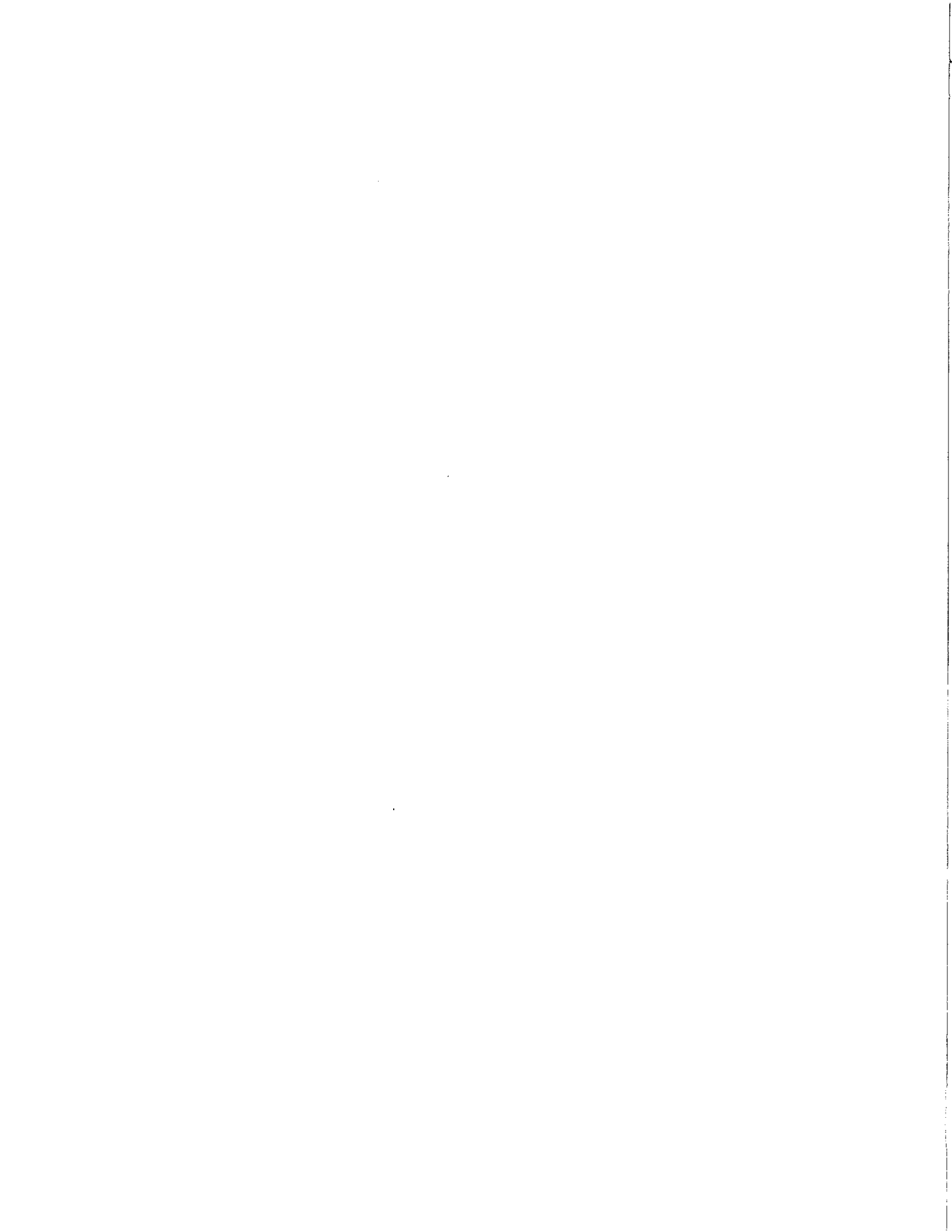


# Prevalence of Caries in Indiana Children: 1971 to 1993

## Deciduous Dentition



# APPENDIX 1



Research Proposal

Project Title: Indiana Oral Health Survey, 1992-1993

Submitted By: Oral Health Research Institute  
Indiana University School of Dentistry  
415 North Lansing Street  
Indianapolis, IN 46202

Contractor: Indiana State Department of Health  
Division of Dental Health  
1330 West Michigan Street  
P.O. Box 1964  
Indianapolis, IN 46206-1964

Principal Investigator: Mark E. Mallatt, D.D.S.  
Co-Investigators: Bradley B. Beiswanger, D.D.S.  
Charles E. Smith, D.D.S.

Budget Period: July 1, 1992 - December 31, 1993

Funds Requested: \$90,000.00

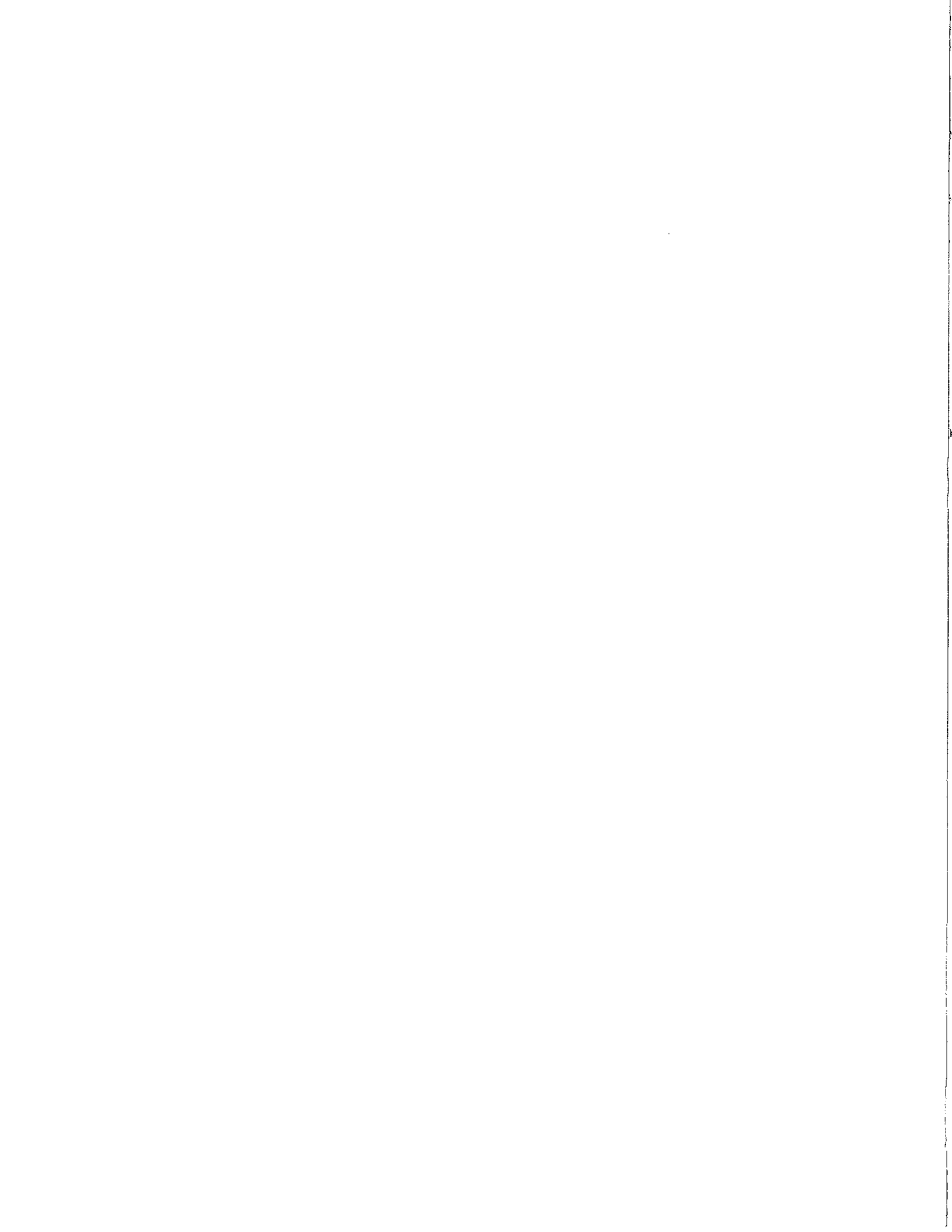
Applicant Institution: Indiana University Foundation  
Research and Sponsored Programs  
355 North Lansing Street  
Indianapolis, IN 46202  
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Financial Officer: William E. Farquhar, Assistant Secretary  
Indiana University Foundation  
P.O. Box 1847  
Bloomington, IN 47402  
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Individual Authorized to Sign for Institution: 

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Wendell F. McBurney, Dean  
Research and Sponsored Programs



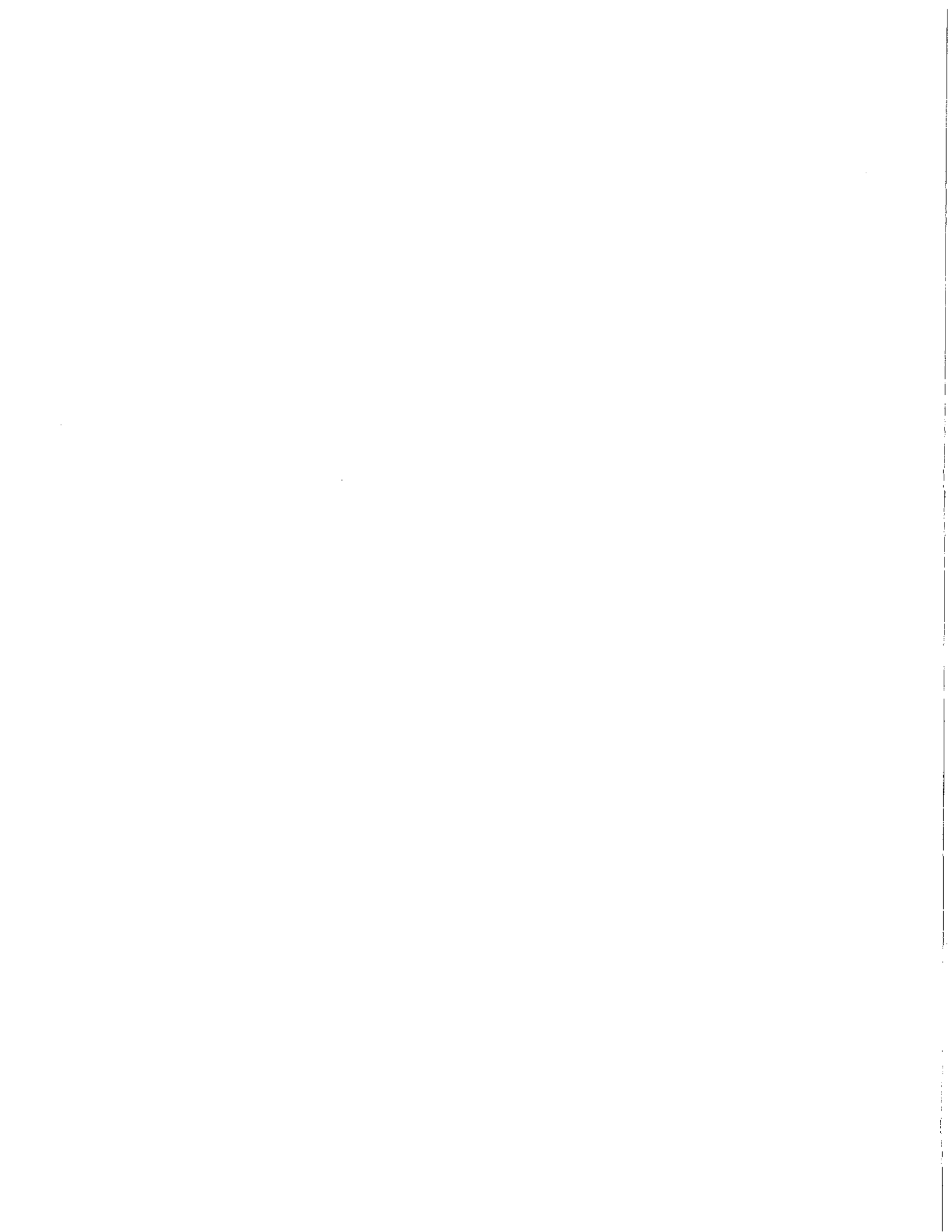


INDIANA ORAL HEALTH SURVEY, 1992-1993

Division of Dental Health  
Indiana State Department of Health

Oral Health Research Institute  
Indiana University School of Dentistry

August 3, 1992



I. BACKGROUND

Indiana is one of the few states that is fortunate enough to have hard data concerning the dental decay prevalence that our citizens have experienced during the past 30 years. Since 1958, statewide surveys to assess the oral health status of our school children, relative to decayed, missing, and filled teeth (DMFT), have been performed every 10 years (the last one was conducted in 1981-82). In reviewing the data from these surveys, one statistic stands out boldly, and that is, the drastic decline in dental caries that has occurred. In the last 23 years alone, the decay rate declined nearly 70%. This marked decline can be attributed to a number of factors. These would include better, more effective, and the expanded use of topical fluoride preparations, dentifrices and pediatric supplements; increased dental manpower that is more accessible, increased emphasis on preventive programs and dental health education, increased availability of dental insurance and public awareness, and perhaps most importantly, an increase in the number of our citizens receiving optimally fluoridated water. With regards to the latter, the Dental Division for many years, has aggressively promoted and helped establish communal and school water fluoridation programs. As a result, Indiana has approximately 97% of those people on communal water systems receiving optimally fluoridated water and over 37,000 children in the school water fluoridation program.

(The fluoridation year 2000 objective was met long ago in Indiana.) The fact that the decay rate has dropped so dramatically can certainly be attributed to the above. Nevertheless, because of the valuable epidemiological data collected in past surveys, this fact can be documented and not merely surmised or estimated. This has been helpful not only in determining the success of our past objectives, but also in determining future oral health objectives and target areas.

It is now time for the 1992-1993 survey.

### III. PURPOSE

The purpose of the '92-93 survey is three fold:

- 1) To target special population groups to assess their dental health needs. This would include minorities, the homeless, children in MCH programs, medicaid eligible children, medically indigent children, and pre-schoolers.
- 2) To obtain data which will address points 13.1, 13.2, 13.3, 13.5, 13.8, 13.11, 13.12, 13.14 relative to the Health Status Objectives for the year 2000.
- 3) To continue to evaluate the status of a statewide statistical random sample of school age children.

The former statewide surveys were essentially random samples of all Indiana children. This present survey is

directed specifically toward racial-ethnic comparisons and the sample employed is not necessarily representative of all Indiana children. Therefore, direct comparisons with these former surveys will not be possible. However, comparisons to past data will be made within specific strata. Potential strata to be used for these comparisons include: 1) County, 2) Racial/Ethnic, 3) Age, 4) Level of parents' education and income.

### III. METHODOLOGY

#### A. Sample

For the '92-'93 survey, the total sample size is anticipated to be approximately 2,000 children. About 1,500 children ages 6, 8, 12, and 15 (about 350 of each age) will be recruited from the public school systems in the 11 minority counties in Indiana which have significant Black and Minority populations. The above age ranges are approximate since school classrooms will be utilized. Thus, first grade classes should include most 6 year olds however, ages 5 or 7 may also be encountered. The 11 counties are Allen, Delaware, Elkhart, Grant, Lake, LaPorte, Madison, Marion, St. Joseph, Vanderburgh, and Vigo.

Within these counties, schools will be identified (by local school officials) which have relatively high proportions of minority students. Recruiting for this survey will be targeted to these high-minority schools.

Our estimate is that this will provide an overall sample which is about 50:50, white to non-white. Whatever the exact proportion, there should be adequate representation to provide a relatively precise estimate of disease levels.

Also, about 500 children of various ages (pre-school and older) will be recruited to determine the oral health status of selected populations. These individuals will be recruited from a combination of W.I.C. and M.C.H. clinics, daycare centers and shelters for the indigent. All children will receive the same battery of standard dental evaluations.

The ethnic breakdown of the individuals examined will be consistent with guidelines used in the most recent census. This would include: White, Black, Hispanic, Asian or Pacific Islander, and North American Indian. The status of children relative to whether they reside in fluoride/non-fluoride areas or urban/rural areas will continue to be categorized but this will not be primary selection criteria, and no attempt will be made to equally balance these groups, as has been done in the past. In fact, it may not be possible to even analyze for the differences between urban and rural or fluoride and non-fluoride due to lack of adequate representation of either rural or non-fluoride residents. Once initial approval is obtained from superintendents of the selected schools, administrators of

day care centers, etc. an informed consent/health history form will be distributed to potential participants. The health history part of this form will be very brief. Since this is a one time examination, most potential participants will qualify unless they require prophylactic antibiotic coverage. Thus, universal precautions will be strictly adhered to and utilized. Participation is voluntary and examinations will be performed only on those 2,000 + students who return a completed form and who have a negative medical history.

#### B. Data Collection Categories

The clinical objectives will be to collect data on caries [defs, DMFS, and to obtain data on the prevalence of Baby Bottle Tooth Decay (BBTD)]. Review of the literature indicates that BBTD may affect from 1%-53% of the children under the age of 6, however, no data is available in Indiana. Data will also be collected on gingivitis and oral soft tissue pathology. The 1981-82 survey utilized a yes/no criteria for the presence of gingivitis; a numerical index will be used for this survey. As part of the overall inspection of the oral cavity, the prevalence of dental fluorosis will be noted. Reports have appeared indicating dental fluorosis has increased in some areas of the U.S. Since no attempt was made to look at this in past surveys, baseline data on prevalence could be established for future surveys. Another data category that will be tabulated,

concerns the use of pit and fissure sealants in Indiana. This is easily obtained as part of the caries examination and will be particularly helpful in ascertaining year 2000 oral health objectives concerning their use and prevalence.

Also, data relative to oral health habits, past history of dental care and socioeconomic parameters will be obtained via questions incorporated into the informed consent/medical history form.

To Summarize, data will be collected on:

- 1) Caries d.e.f.s., D.M.F.S.
- 2) BBTD when possible
- 3) Fluorosis
- 4) Gingivitis
- 5) Pit and fissure sealants
- 6) Ethnic category
- 7) Rural/urban (if possible)
- 8) Fluoride/non-fluoride (if possible)
- 9) Intraoral soft tissue pathology

#### C. Clinical Examinations

The survey team will use portable equipment which will be set up on location at the individual schools, daycare centers, clinics, etc. A thorough tactile-visual examination will be performed using conventional mouth mirrors, dental explorers, compressed air and artificial



light. It is anticipated that each examination will take approximately 15 minutes to complete all phases.

Caries examinations will be conducted utilizing the criteria established by Radike et al. for clinically diagnosing carious lesions. (Appendix 1) For this survey both permanent teeth as well as deciduous teeth will be scored for decayed, missing and filled surfaces. As part of this examination occlusal sealants will be tabulated.

With regard to gingivitis, the PMGI (Appendix 2) will be used to score gingival inflammation and bleeding sites utilizing a 0-3 index. For this exam the six selected teeth identified using the Community Periodontal Index of Treatment Needs (CPITN) will be scored. These teeth are:

- the four permanent first molars
- the upper right permanent central incisor
- the lower left permanent central incisor.

It is thought that these teeth will be adequate for the targeted ages of 6, 8, 12, and 15 year olds. In those instances ( age 6) where these permanent teeth have not erupted, the corresponding deciduous tooth will be scored.

The fluorosis index utilized will be the Tooth Surface Index of Fluorosis [(TSIF) Appendix 3] utilizing a 0-7 scale. Again the six selected CPITN teeth will be examined

however, permanent teeth only will be scored.

The oral soft tissues will be examined and all findings will be recorded with regard to type of lesion, site, size, and possible diagnosis. Areas examined will include the buccal and labine mucosa, gingivae, hard and soft palate, tongue, floor of the mouth, and oropharynx.

#### D. Family Demographics

As part of the informed consent form, additional information relative to family demographics will be obtained. This will include: 1) the level of parent education, 2) the average family income, 3) eligibility and utilization of Medicaid, 4) availability of dental insurance, and 5) frequency of dental visits.

#### E. Benefits

Participation in the survey will be voluntary and informed consent will be obtained from all participants prior to the dental examinations as required by the ISDH Office of Legal Affairs. Benefits which the participants will receive as a result of their time and effort in filling out the consent/health history forms and by their active participation will include receiving: 1) a thorough dental examination, 2) a toothbrush, and 3) oral health educational brochures. In addition, an advisory letter outlining the oral health needs of those found to be in obvious need of dental treatment will be sent to the

parents or guardians.

#### IV. IMPLEMENTATION

##### A. Contractual Responsibility

The primary responsibility for the conduct of the survey lies with the Division of Dental Health of the Indiana State Department of Health (ISDH). Because of the magnitude of the project and the logistics involved, the Oral Health Research Institute (ORHI) will collaborate with ISDH as a sub-contractee. OHRI conducted the 1981-82 survey in its entirety and has extensive experience in conducting large scale clinical investigations. It is expected that for the '92-'93 survey, OHRI will be instrumental in the recruitment and implementation of the project along with providing support personnel and data analysis. The Division of Dental Health's responsibility will be the actual conduct of examinations and the gathering of all data. Specific responsibility/duties for ISDH or OHRI are as follows:

##### Oral Health Research Institute:

- a. Prepare and submit all IRB materials in collaboration with ISDH personnel;
- b. Develop a specific sampling plan;
- c. Identify and train study Coordinator;
- d. Perform all instrument sterilization;
- e. Order all infection control (for sterilization)

supplies;

- f. Provide all instruments;
- g. Devise a data recording system for collection of oral and questionnaire data;
- h. Perform adequate statistical summarization and analysis to permit interpretation of the findings; assist in interpreting and describing the findings;
- i. Provide payroll support for the following personnel:
  1. Study Coordinator
  2. On-site data recorder
  3. Sterilization staff
  4. Data Management
  5. Statistical Consulting and Programming
  6. Secretarial support

Indiana State Department of Health

- a. Provide the Principal Investigator who will be responsible for the following:
  1. Development of protocol and final report;
  2. Identification of specific examination sites; (W.I.C. and M.C.H. clinics, etc.)
  3. Review of medical histories prior to start of study;
  4. Performance of all dental examinations;
  5. Provide daily supervision for examination team including Study Coordinator;

- b. Supply office space for Study Coordinator;
- c. Supply office support for examination team  
(i.e. basic office supplies, telephone services,  
xerox.)
- d. Provide all portable dental equipment;
- e. Provide all transportation to study sites;
- f. Order all clinical disposable items;

The study coordinator, under the supervision of the Principal Investigator will be responsible for the day-to-day conduct of the study and will be responsible for the following duties:

- a. Recruitment of examination sites as identified  
by OHRI;
- b. Distribution and collection of informed consent  
statements and questionnaires;
- c. Development and scheduling of the examination  
itinerary and communication of schedule to needed  
personnel;
- d. Maintenance of all study records in accordance with  
Food & Drug Administration regulations;
- e. Communication liaison between ISDH and OHRI;
- f. Hiring and supervision of a data recorder;
- g. Coordination of area volunteers to act in  
getting children from the classroom at each site.

#### B. Timetable

It is anticipated that all planning logistics will be accomplished before October of 1992 and that the actual examinations will begin shortly thereafter. Examinations should be finished by May of 1993. Data analysis will begin as soon as possible upon completion of the dental examinations. The final report will be the joint responsibility of OHRI and the Division of Dental Health.

#### V. FUNDING

The actual cost of the survey has been estimated to be more than that which has been allocated from the Maternal and Child Health Division to OHRI. Thus, in order to accomplish the survey it will be necessary to use dentists from the Indiana State Department of Health Dental Division as clinical examiners.

#### VI. OUTCOMES

The data obtained from this survey will be instrumental in not only assessing the success of preventive and dental health education programs already in existence in Indiana but will also be invaluable in ascertaining the dental health assessment needs of targeted populations. This is the first time this has been done and will serve as a baseline for future surveys. Also, this data will give us a perspective on the Year 2000 Oral Health Objectives with

regard to:

- 13.1 Dental caries
- 13.2 Untreated dental caries
- 13.3 Permanent tooth loss
- 13.5 Gingivitis
- 13.8 Protective sealants
- 13.10 Topical and systemic fluorides
- 13.11 Baby bottle tooth decay
- 13.12 Oral health screening, referral, and follow-up
- 13.14 Regular dental visits

In addition, data will also be obtained on the prevalence of fluorosis.

VII. STATISTICAL REPORT

The statistical data analysis will be performed by OHRI upon completion of the clinical examinations. The parameters to be analyzed have been outlined above. The final report will be a collaborative effort of the Division of Dental Health and the Oral Health Research Institute.





## Criteria of Assessment for the Survey

### A. Dental Caries

The examination will consist of visual-tactile exploration of each tooth surface; radiographs are not considered essential to the study and will not be utilized.

1. The standard epidemiological indicators of dental caries will be determined at each examination using established procedures involving direct visual inspecting and tactile examination. In general, the criteria outlined by Radike (1968) will be utilized.
2. The dental caries examiners will employ both conventional dental spot light. The following descriptions have been directly excerpted:
  - a. Frank Lesion - The detection of these lesions on the basis of gross cavitation usually does not present a problem in diagnosis. When cavitation is present the diagnosis is positive.
    - 1) Cavitation in this context may be caused by loss of tooth substance.
    - 2) Cavitation which is the result of the caries process must be distinguished from fractures and the smooth lesions of erosion and abrasion.
  - b. Lesions Not Showing Frank Cavitation - The most difficult part of the examiner's task is the detection of lesions where there is not frank cavitation. These are the lesions which are close to the decision point between carious and sound. The criteria for detection of these lesions are summarized in three categories, each presenting its special problems.
    - 1) Detection of pit and fissure lesions of the occlusal, facial and lingual surfaces.

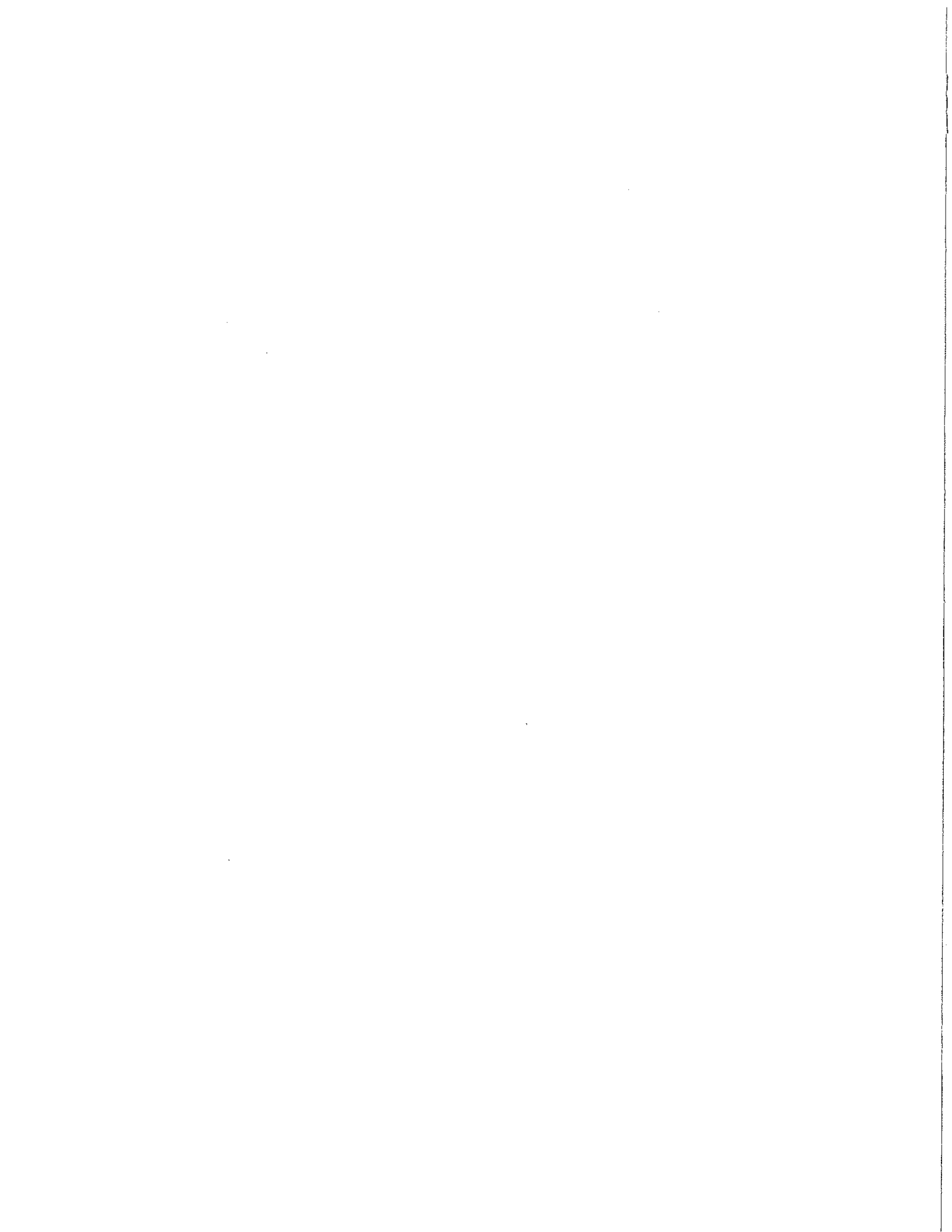
- a) Area is carious when the explorer "catches" or resists removal after the insertion into a pit or fissure with moderate to firm pressure, and when this is accompanied by one or more of the following signs of caries:
    - (1) a softness at the base of the area
    - (2) opacity adjacent to the pit or fissure as evidence of undermining or demineralization
    - (3) softened enamel adjacent to the pit or fissure which may be scraped away with the explorer
  - b) Area is carious if there is loss of the normal translucency of the enamel, adjacent to a pit, which is in contrast to the surrounding tooth structure. This condition is considered to be reliable evidence of undermining. In some of these cases, the explorer may not catch or penetrate the pit.
- 2) Detection of lesions on smooth area of facial and lingual surfaces
- a) Area is carious if surface is etched or if there is a white spot as evidence of subsurface demineralization, and if the area is found to be soft by:
    - 1) penetration with explorer
    - 2) scraping away enamel with explorer
  - b) Area is sound when there is apparent evidence of demineralization (etching or white spots) but no evidence of softness.
- 3) Detection of lesions on proximal surfaces
- a) For areas exposed to direct visual and tactile examination - these are diagnosed as under "2)" above for smooth areas.

b) For hidden areas not exposed to direct visual-tactile examination:

- 1) visual examination: if the marginal ridge shows an opacity as evidence of undermined enamel, the proximal surface is carious.
- 2) tactile examination: any discontinuity of the enamel in which an explorer will enter is carious if it also shows other evidence of decay as under "2)" above for smooth areas.

Some further points considered relevant to the diagnosis of caries are:

- 1) Stain or pigmentation (alone) can not be considered as evidence of caries since they can occur in sound teeth.
- 2) A decision of sound or carious must be made; no "border-line" category will be permitted.
- 3) Erosion, attrition, abrasion, hypoplastic opacities and fractures cannot be classified as carious.



### Papillary-Marginal-Gingivitis-Index (PMGI)\*

The index routinely used by OHRI examiners is the PMGI index as described by De La Rosa and Sturzenberger. This index is a combination of the Papillary-Marginal-Attached Gingival Index described by Massler and Schour and the Gingivitis Index of Loe and Silness.

In most studies the selection of subjects is such that those with periodontal disease beyond the early stage are not included; therefore, there is no need for the assessment of attached gingivae. The Papillary-Marginal-Gingivitis Index then is limited to all facial and lingual papillae and gingival margins of all natural teeth (excluding third molars) whether they be permanent or deciduous. To provide uniformity in this assessment, each papillae is considered the gingival structure distal to a tooth. An exception is the papillae between the central incisors. Since it is not distal to a tooth, it is referred to as the "midline papilla".

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\*De La Rosa, M., and Sturzenberger, O.P.: Clinical reduction of gingivitis through the use of a mouthwash containing two quaternary ammonium compounds. J. Periodontol., 47:535-537, 1976.

When assessing the gingivitis of a subject, the examiner begins with the distal papilla of the most posterior maxillary tooth and proceeds around the arch to the corresponding tooth on the opposite side. From there he continues back along the lingual aspect of the maxillary arch and then proceeds to the lower arch which is examined in the same manner.

Apart from the decision whether or not gingivitis is present, the relative severity of inflammation in the papillae and margins must be noted.

For this purpose the following scale is used:

- 0 = no inflammation, healthy tissue
- 1 = mild inflammation - slight change in color (erythema) and little change in texture
- 2 = moderate inflammation - moderate glazing, redness, edema and hypertrophy. Bleeding on pressure with a blunt instrument.
- 3 = severe inflammation - marked redness and hypertrophy. Tendency to spontaneous bleeding, ulceration.
- 9 = crown, cervical restoration, missing tooth, etc. ungradable area - not included as data.

The gingivitis examination is limited to 28 natural teeth. Therefore, maximally, 60 gingival papillae (including 4 midline papillae) and 56 gingival margins or a total of 116 units are scored.

The severity of gingivitis as noted by the PMGI is the arithmetic sum of all the inflammation scores divided by the total number of (papillary and marginal) units examined per subject.

Unlike the early 1930's when fluoride, then the newfound causative agent of dental fluorosis was unmonitored, today, most drinking water supplies are tested and regulated to ensure the optimum level of fluoride. As a result of this regulation, more children are benefiting from fluoride except in isolated cases where private wells are not tested for fluoride content.

Dental fluorosis is a form of hypoplasia of the enamel that resulted from an abnormally high consumption of fluoride during tooth development. This condition varies depending on the amount and the length time which fluoride is ingested during tooth calcification. The effect ranges from barely visible to dark brown stain with some pitting.

Several indices are now used to study the prevalence of fluorosis; one of which is the Tooth Surface Index of Fluorosis (TSIF). The TSIF makes a clear distinction between scoring criteria, listed below, thus offers great sensitivity in areas where severe fluorosis is prevalent and when more than one category exist.

- 0 - Enamel shows no evidence of fluorosis.
- 1 - enamel shows definite evidence of fluorosis, namely areas with parchment-white color that total less than one-third of the visible enamel surface. This category includes fluorosis confined only to incisal edges of anterior teeth and cusp tips of posterior teeth ("snowcapping").
- 2 - Parchment-white fluorosis totals at least one-third of the visible surface, but less than two-thirds.
- 3 - Parchment-white fluorosis totals at least two-thirds of the visible surface.
- 4 - Enamel shows staining in conjunction with any of the preceding levels of fluorosis. Staining is defined as an area of definite discoloration that may range from light to very dark brown.
- 5 - Discrete pitting of the enamel exists, unaccompanied by evidence of staining of intact enamel. A pit is defined as a definite physical defect in the enamel surface with a rough floor that is surrounded by a wall of intact enamel. The pitted area is usually stained or differs in color from the surrounding enamel.

- 6 - Both discrete pitting and staining of the intact enamel exist.
- 7 - Confluent pitting of the enamel surface exists. large areas of enamel may be missing and the anatomy of the tooth may be altered. Dark brown stain is usually present.

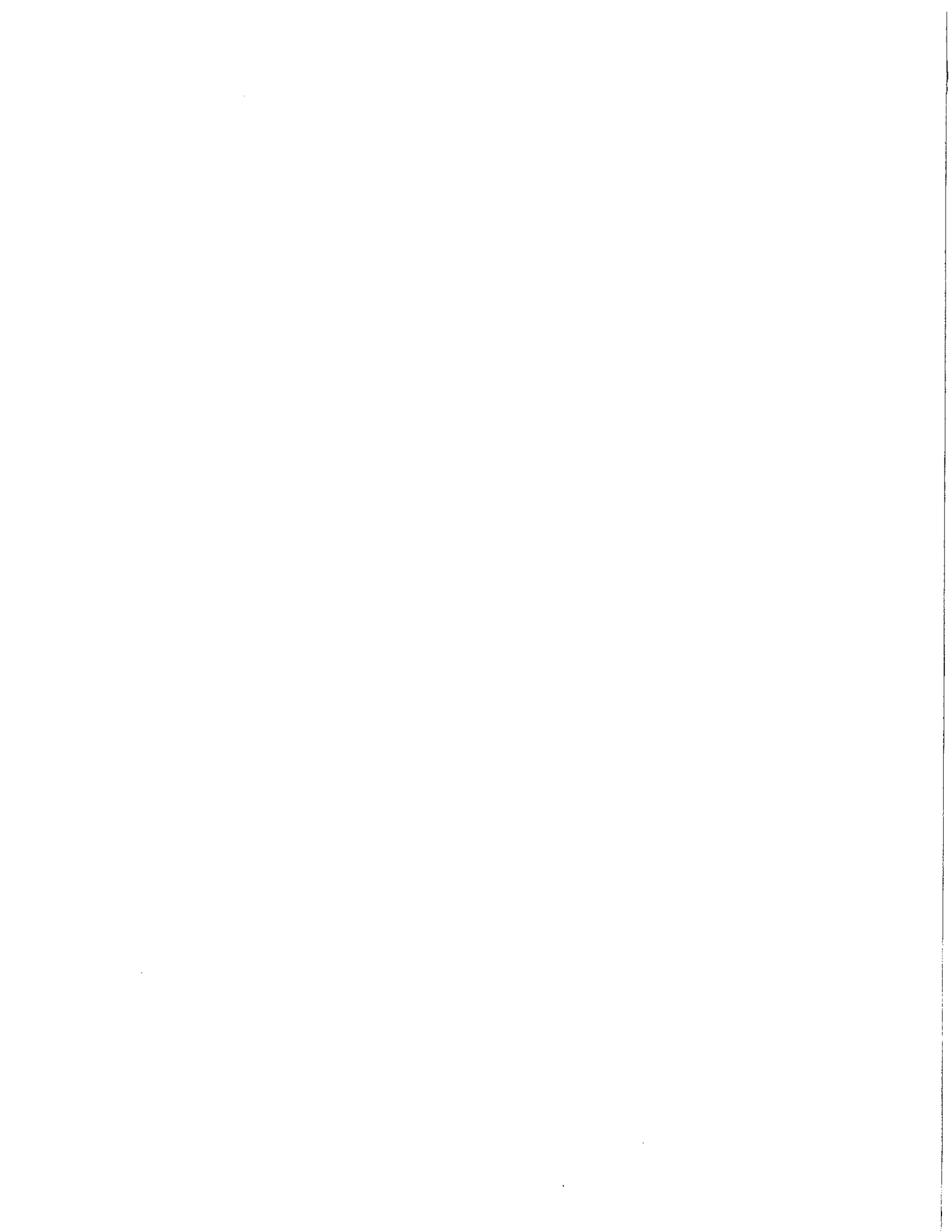
The index estimates the amount of fluorosis as a fraction of the total visible enamel surface. Only permanent and unrestored teeth are scored. Teeth that are partially erupted must have at least one surface completely shown. The TSIF is not an interval scale thus the scores are not averaged but arranged into arrays of frequency distribution.

TSIF provides a separate score for each tooth surface; two scores are assigned to anterior teeth (from the labial and lingual aspects) and three to posterior teeth (from the buccal lingual and occlusal aspects). Therefore one is able to bring out the differences in severity of fluorosis in different tooth surfaces. More specifically, one could focus on the maxillary anteriors (incisors and canines), the most esthetically important tooth surfaces in the mouth.

To eliminate the possibility of mistaking other forms of enamel hypoplasia as fluorosis, Table A shows Russell's description of some distinguishing features between milder forms of fluorosis and nonfluoride enamel opacities. Another way to reassure the diagnosis of fluoride is to examine the water for fluoride content.



## APPENDIX 2



IUPUI INSTITUTIONAL REVIEW BOARD (IRB) AND SUBCOMMITTEE REVIEWS  
DOCUMENTATION OF REVIEW AND APPROVAL

(For Office Use Only) 1. Principal Investigator Mark E. Mallatt, D.D.S.  
(Must have faculty/staff status)  
Reviewers: \_\_\_\_\_ Department Dental Division, ISBH  
\_\_\_\_\_ Building/Rm. No. 1330 W. Michigan  
\_\_\_\_\_ Telephone 633-8418

2. PROJECT TITLE: Indiana Oral Health Survey, 1992-1993

3. PROPOSAL TITLE (if different than project title): \_\_\_\_\_

4. CHECK TYPE OF REVIEW:  Expedited (Please send original plus 2 copies--3 total)  
 Full (Please see Page 2, Item 4 for no. of copies needed)

5. CHECK IRB:  Medical  Behavioral or Social Sciences

6. Sponsoring Agency: Maternal and Child Health

7. Contract/Grant # (If known) \_\_\_\_\_ Period: 7/1/92 12/31/93  
from to

8. Research to include:  Minors  Fetuses  Economically or  
(Special Subject Populations)  Pregnant Women  Abortuses  Educationally  
 Mentally Disabled  Prisoners  Disadvantaged

9. The principal investigator must assure the Board that all procedures performed under the project will be conducted in accordance with those federal regulations and University policies which govern research involving human subjects. Any deviation from the project (e.g., change in principal investigator research methodology, subject recruitment procedures, etc.) will be submitted to the Board in the form of an amendment for IRB approval prior to implementation.

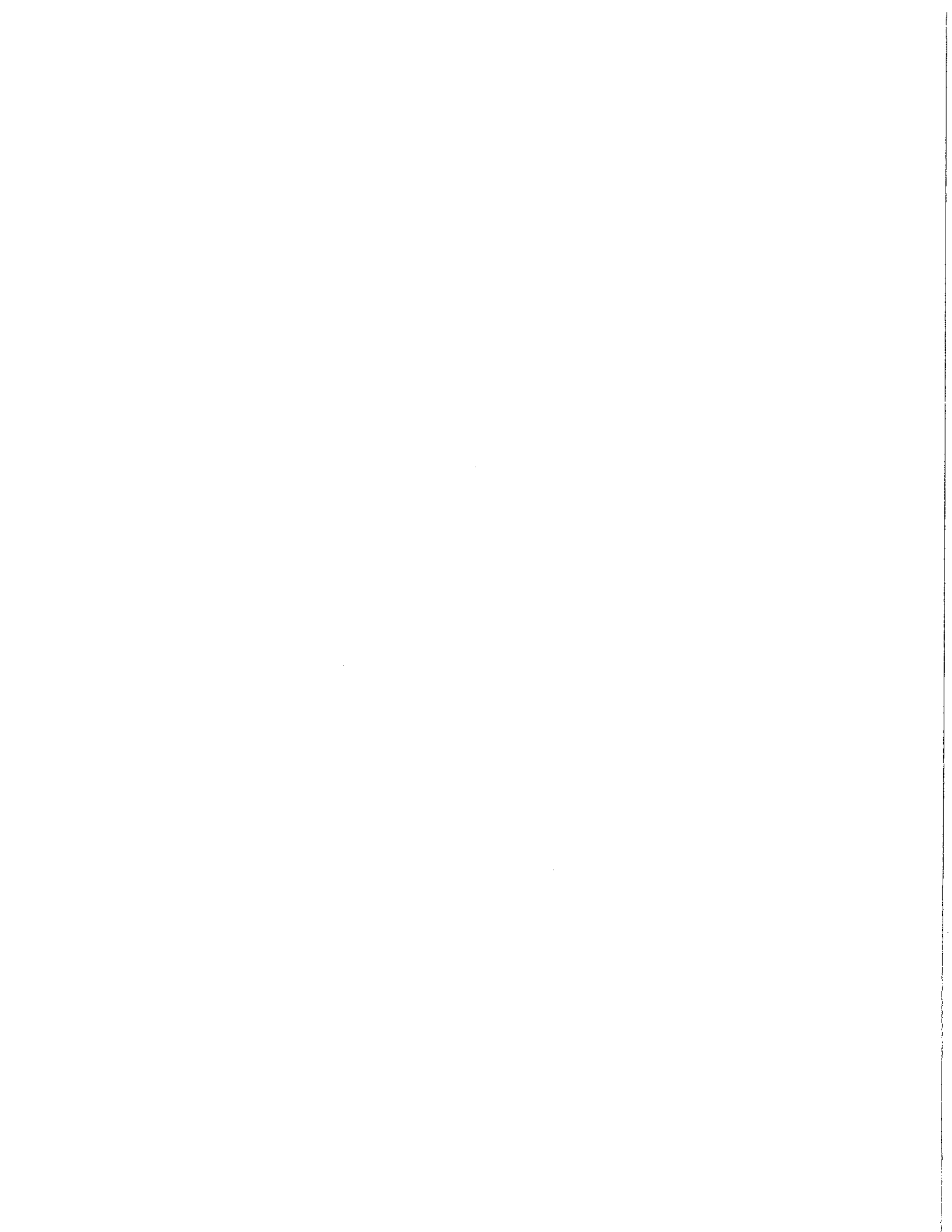
NOTE: Applications and any additional material requested by the Board will not be processed unless neatly typed and legible, properly prepared, and signed personally by the principal investigator.

8/3/92 \_\_\_\_\_  
Date Principal Investigator (signature) Mark E. Mallatt

\*\*\*\*\*FOR OFFICE USE ONLY\*\*\*\*\*

This protocol and informed consent statement for use of human subjects has been reviewed and approved by the Indiana University-Purdue University at Indianapolis Institutional Review Board. It is approved for a one year period beyond the final approval date unless otherwise indicated below.

\_\_\_\_\_  
Authorized IRB Signature IRB Approval Date



**SUMMARY SAFEGUARD STATEMENT**  
(To be completed by all investigators employing human subjects in research)

Title: Indiana Oral Health Survey, 1992-1993

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**IF ADDITIONAL SPACE FOR RESPONSES IS DESIRED, THIS DOCUMENT MUST BE  
RETYPE ON PLAIN PAPER MAINTAINING THE IDENTICAL FORMAT AND EXACT QUESTION  
WORDING WHILE ADDING EXTRA SPACE WHERE NEEDED.**  
(Do not type on the reverse side of any forms.)

I.A. Briefly describe the general nature and purpose of the research proposal:

As is well documented, the prevalence of dental disease in children residing in Indiana is on the decline. Previous dental health surveys have been more general in scope and focused on schoolage children, so information is available concerning the prevalence of dental disease among schoolchildren from minority races or preschool children.

The purpose of this investigation is to collect data concerning the oral health status of children residing in eleven counties in the state of Indiana. These counties have been chosen because they have significant Black and other minority populations. Approximately 1,500 schoolchildren (ages 6, 7, 8, and 15) as well as approximately 500 preschoolers (ages 5 and below) will be examined so that a reasonable assessment of the oral health of these previously neglected populations can be made.

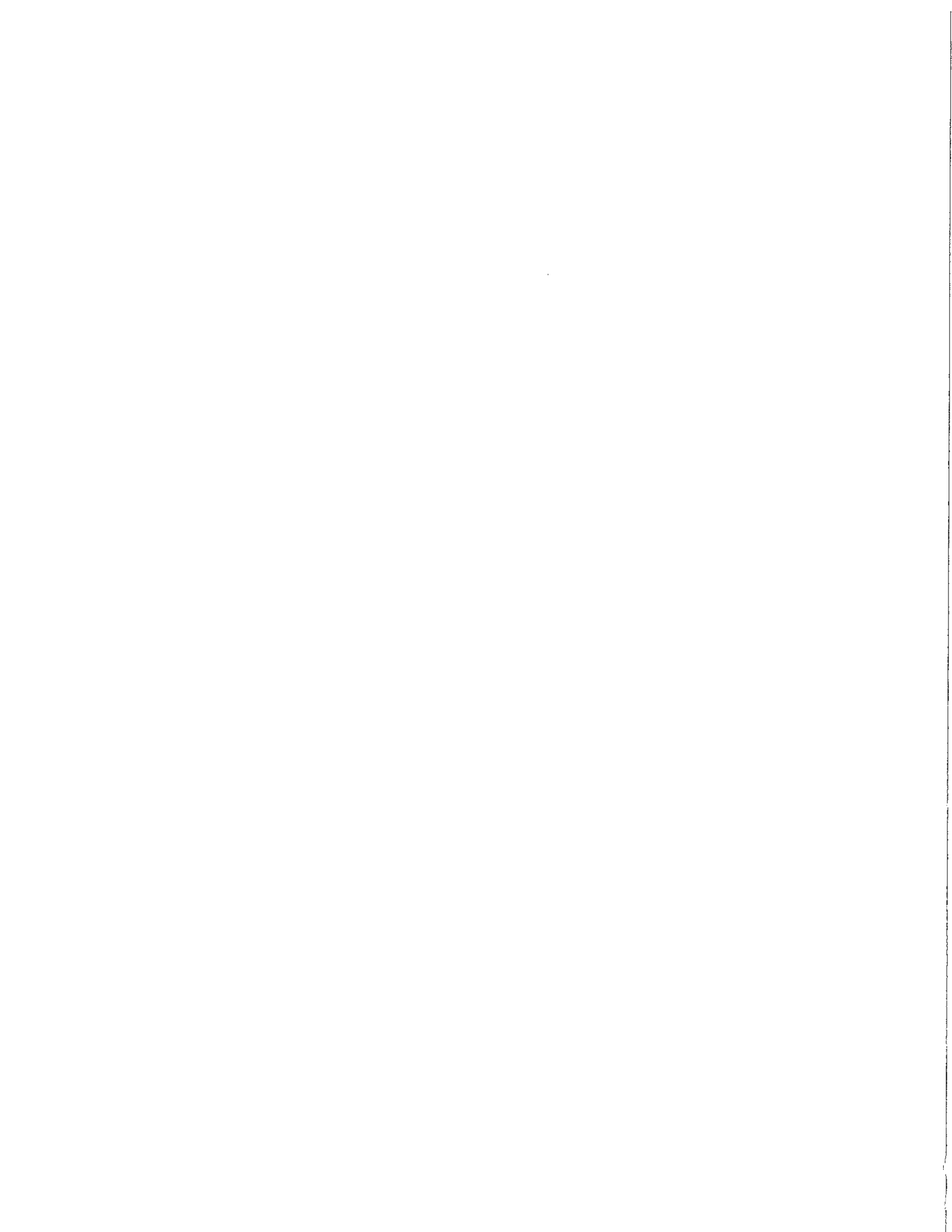
I.B. Check appropriate line telling site of performance:      Carter,      Riley,      Wishard,      University,  
     Veterans,  Other (specify location:) Indiana State Board of Health

I.C. List specific eligibility requirements for subjects, including those criteria which would exclude otherwise acceptable subjects, telling how they will be recruited.

- 1, parents must read and sign an informational letter of consent;
- 2, parents must complete a medical history questionnaire;
- 3, child must be in good health and not have any medical conditions which would require additional precautions be taken prior to a dental examination;
- 4, allow the performance of a battery of dental examinations to assess the health of the dental hard and soft tissues;
- 5, provide data by means of a questionnaire concerning family demographics and oral health care practices; and,
- 6, be available for an examination.

I.D. Check appropriate line for subject population involved where it includes:  minors,      fetuses,      abortuses,      pregnant women,      mentally disabled,      prisoners,      economically or educationally disadvantaged. If any of the above are used, state the necessity for doing so.

Purpose of the investigation is to assess the dental health of minors in Indiana.



## SUMMARY SAFEGUARD STATEMENT (Cont'd)

I.E. List all procedures to be used on human subjects. **ASTERISK** those you consider experimental. For the asterisked procedures, describe the usual method(s), if any, that were considered and why they were used.

- 1, collection of informed consent;
- 2, collection of medical history data;
- 3, collection of demographic and health care practices information by means of a questionnaire; and,
- 4, oral examinations to determine the prevalence of dental caries, gingivitis, nursing bottle caries, a fluorosis.

I.F. State the potential risks—for example, physical, psychological, social, legal or other—connected with the proposed procedures.

- 1, risk of physical injury or trauma related to the performance of a dental examination;
- 2, risk of cross-contamination; and,
- 3, loss of records confidentiality.

I.G. Describe procedures (including methods to assure confidentiality) for protecting against, or minimizing potential risks. Assess their likely effectiveness.

Dental examinations will be performed by a experienced dental examiner. All examination procedures will be performed using the guidelines as set forth by the Infection Control Committee of the School of Dentistry to reduce the likelihood of disease transmission. All records and data generated by this investigation will be stored in locked cabinets with access limited to those directly involved in this investigation. These precautions should limit the panelist risk to a minimal level.

II.A. What, if any, benefit is to be gained by the subject? In the event of monetary gain, include all payment arrangements (amount of payment and the proposed method of disbursement), including reimbursement of expenses. Explain if there will be any partial payment if the subject withdraws prior to completion of the study.

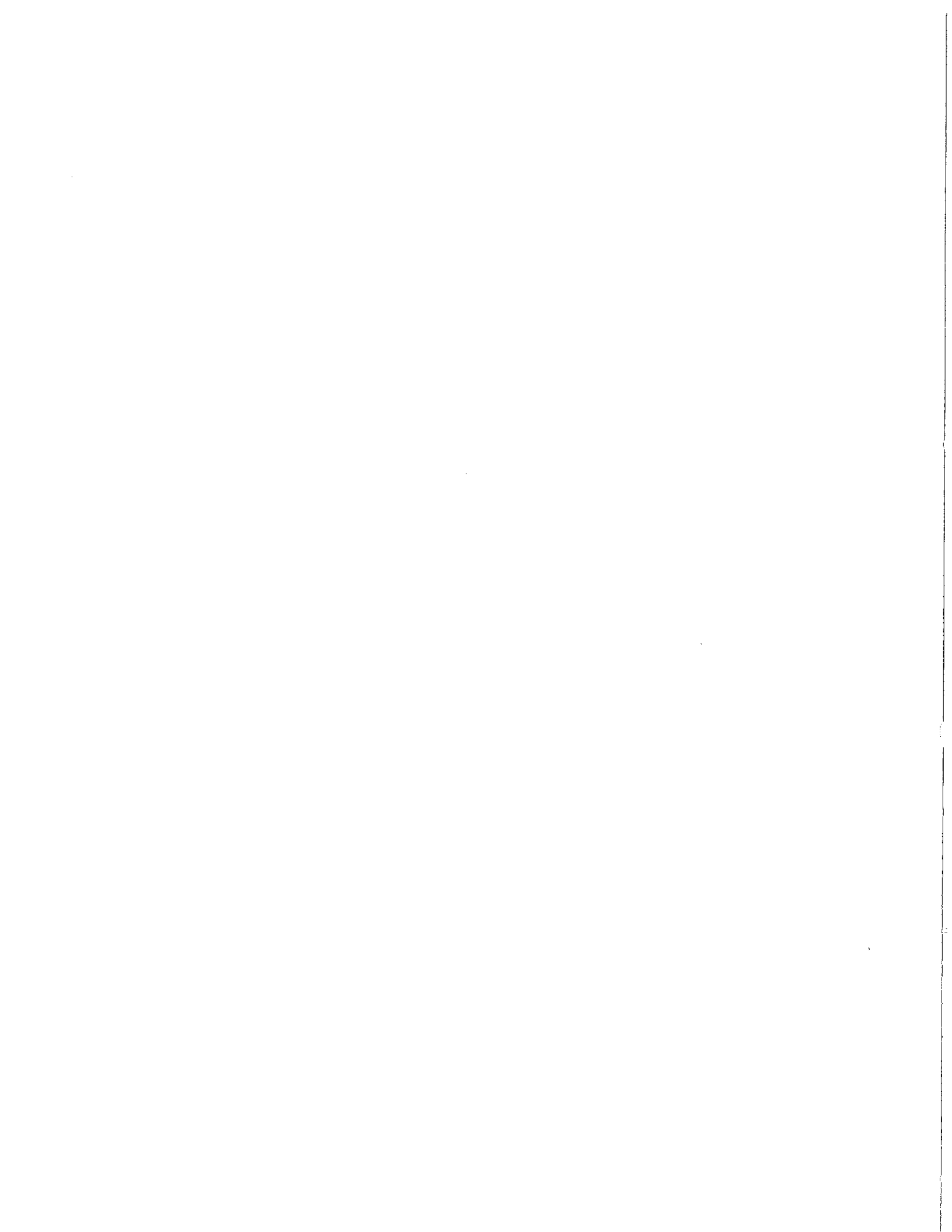
Subjects will receive a free dental examination, oral hygiene products and dental health brochures. If a child is found to be in immediate need of dental care, the principal investigator will notify the child's parents as to nature of the problem and the need for immediate treatment.

II.B. What information may accrue to science or society in general as a result of this work?

The results of this survey will likely serve as the foundation for future dental health programs in the State of Indiana and will allow government officials to determine if the State is in compliance with Health Objectives for the Year 2000.

II.C. Briefly describe how risks to subjects are reasonable in relation to anticipated benefits.

Based on the precautions to be taken, the risk is considered to be minimal as are the benefits to the panelist. The data resulting from the investigation will be of moderate benefit to state planning agencies.





Date: \_\_\_\_\_

**SUMMARY SAFEGUARD STATEMENT (Cont'd)**

II.D. Will you be using the facilities of the General Clinical Research Center, University Hospital, Rm. N-597, 274-4356? Yes: \_\_\_ No: X. If yes, will it be for \_\_\_ inpatient or \_\_\_ outpatient use?

III. If the study involves the use of new drugs or devices, the following information is required by the Food Drug Administration:

III.A. Name of Drug Sponsor: N/A

IND Number: \_\_\_\_\_ Phase I, II or III Study: \_\_\_\_\_

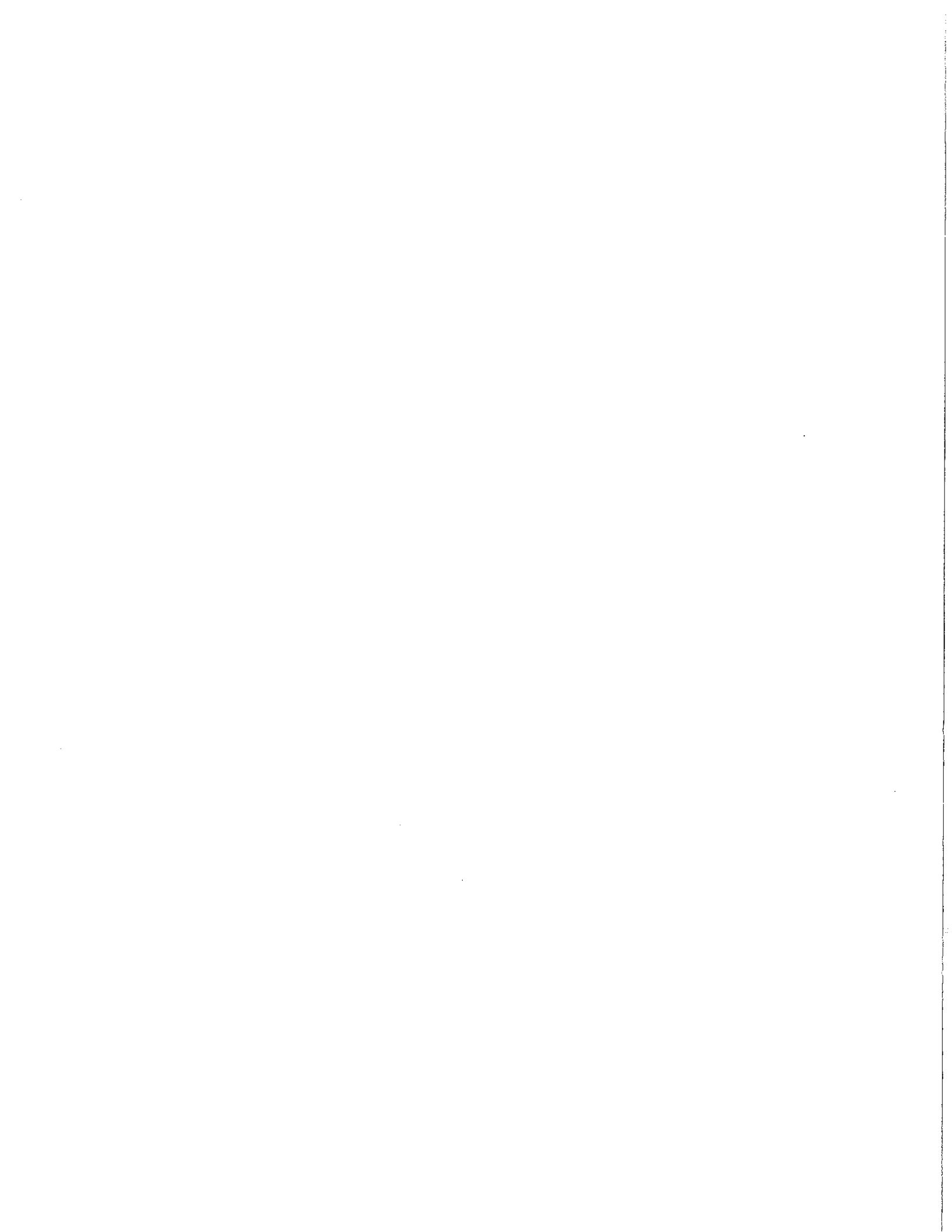
III.B. Name of Device Manufacturer: N/A

IDE Number: \_\_\_\_\_ Significant Risk: \_\_\_\_\_ Nonsignificant Risk: \_\_\_\_\_

The IRB is required to determine whether or not the device is significant risk. Please provide appropriate documentation and the investigator's assessment of the device risk.

IV.A. List the Principal Investigator and any coinvestigators. If you anticipate that another department may be involved in this research, include a coinvestigator from that department or a letter of cooperation indicating the department's willingness to be involved in this study. (If there are multiple investigators, please indicate only one person as the principal investigator, others should be designated as co-investigators.)

Mark E. Mallatt, DDS	Principal Investigator
Charles Smith, DDS	Co-investigator
Bradley B. Beiswanger, DDS	Co-investigator





INDIANA UNIVERSITY

SCHOOL OF DENTISTRY

ORAL HEALTH RESEARCH INSTITUTE  
415 Lansing Street  
Indianapolis, Indiana 46202-2876  
(317) 274-8822  
FAX (317) 274-5425

IUPUI Informed Consent Statement for: Indiana Oral Health Survey, 1992-1993

Dear Parents and Students:

Every 10 years a state wide survey is conducted to determine the dental health status of school age children throughout Indiana. The results of these surveys have been extremely useful to various agencies in identifying the dental needs and appropriate preventive programs for our children.

The Indiana University School of Dentistry's Oral Health Research Institute in collaboration with the Indiana State Department of Health and with the approval of local officials is once again undertaking a dental health survey of children residing in selected communities of Indiana. The purpose of this study is to assess the success of our past preventive programs as well as to evaluate the status of a sample of children with regards to current prevalence of tooth decay, gum disease, and other oral health concerns. Also, as part of the survey we would also like to collect information regarding socioeconomic and demographic patterns. Only through the support and cooperation of people such as yourself are these programs possible and we will sincerely appreciate your willingness to participate in this survey.

The program will be initiated in the Fall of 1992 (through June of 1993) and will include approximately 2000 children. A licensed dentist from the Indiana State Department of Health will perform a thorough dental examination of the oral hard and soft tissues during regular school hours. It is anticipated the examination will only take about 10-15 minutes. The examinations will be conducted using standard dental instruments and portable dental equipment. The examination will be visual-tactile only and will not include the use of x-rays.

To be eligible to participate, each child must return this completed informed consent letter to their school. Benefits which your child will receive include a thorough dental examination, a toothbrush, and oral health educational brochures when appropriate. Also, an advisory letter outlining the oral health needs of those found to be in obvious need of dental treatment will be sent to the parents or guardian. Since this program only involves a routine dental examination, no adverse events are anticipated, however, should your child be injured as a result of participation in the program, emergency treatment will be provided at no cost.

We emphasize that this survey does not involve restorative dental treatment (fillings) and we encourage you to continue your child's regular visits to his/her dentist. It should also be noted that participation is strictly voluntary and you may withdraw your child for any reason. While the general results of this survey may be published at the end, you are assured that none of the participants, records, or intraoral photographs if taken, will be identified personally. Also, all individual socioeconomic and demographic data will be kept confidential.

If you have any questions, or wish more information, please feel free to call Dr. Mark Mallatt at (317) 633-8418. Thank you very much for your help with this project.

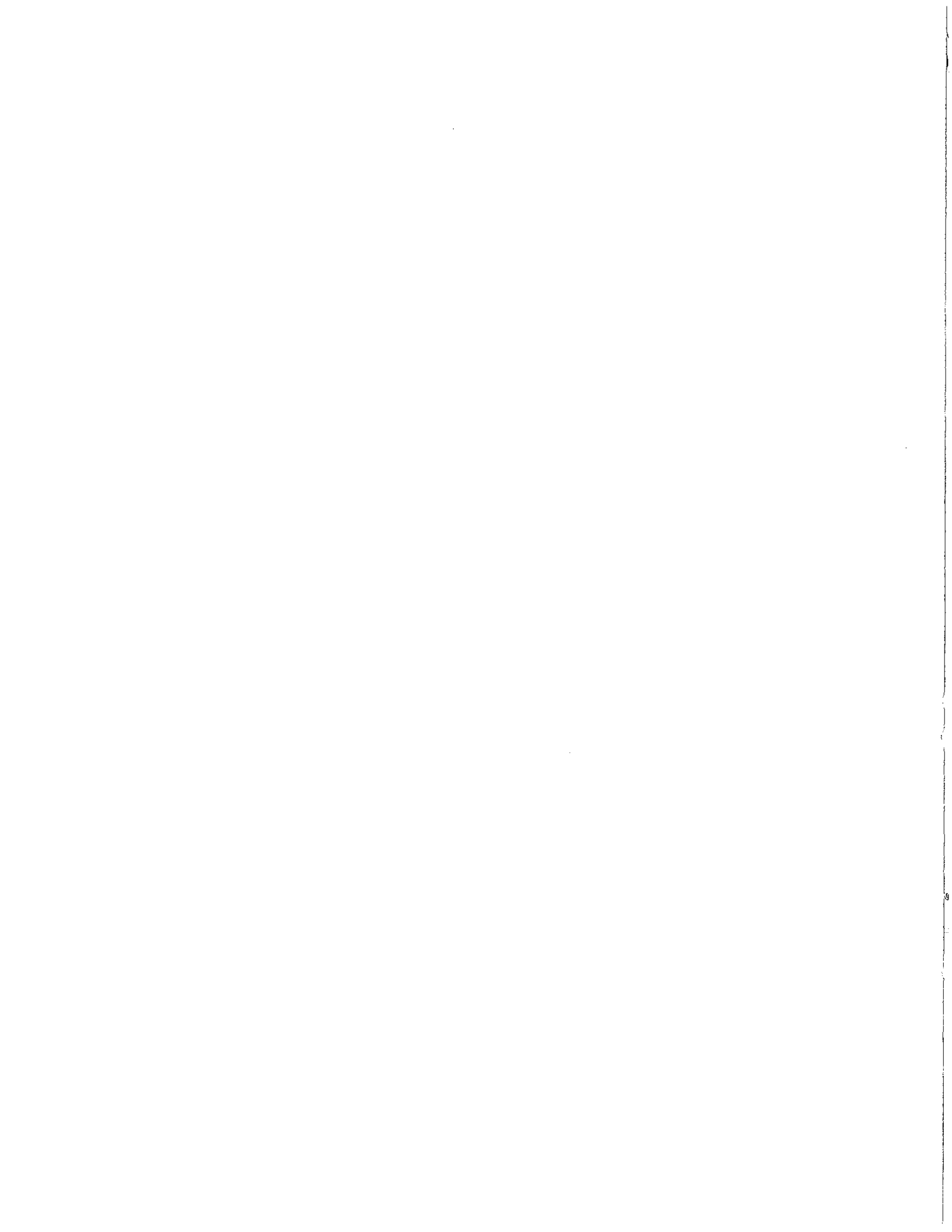
If you are willing for your child to participate in this survey, please complete the back page of this form and return it to your child's school.

Sincerely,

*Mark Mallatt*

Mark E. Mallatt, D.D.S.  
Project Director

THIS FORM IS PRINTED ON SELF-COPYING PAPER



**PLEASE PRINT FIRMLY WITH A BALL POINT PEN!  
ALL QUESTIONS MUST BE ANSWERED & SIGNATURES PROVIDED**

CHILD'S NAME \_\_\_\_\_ SEX \_\_\_\_\_ AGE \_\_\_\_\_  
ADDRESS \_\_\_\_\_ CITY \_\_\_\_\_ ZIP \_\_\_\_\_ PHONE \_\_\_\_\_  
SCHOOL \_\_\_\_\_ HOMEROOM TEACHER \_\_\_\_\_ GRADE \_\_\_\_\_

What is the source of household water supply? City \_\_\_\_\_ Well (Other) \_\_\_\_\_

1) Does your child presently have a health problem that would prevent participation in this survey? YES (Explain) \_\_\_\_\_ NO \_\_\_\_\_

2) Has your child ever had rheumatic fever, valve replacement, joint replacement or any other implants? YES (Explain) \_\_\_\_\_ NO \_\_\_\_\_

**THE FOLLOWING SOCIOECONOMIC/DEMOGRAPHIC INFORMATION  
WILL BE KEPT CONFIDENTIAL**

Please Check The Statement That Best Describes Your Household

Educational Level of Parents (Please use M for Mother , F for Father)

8 years or less \_\_\_\_\_ 13 - 16 \_\_\_\_\_  
9-12 years \_\_\_\_\_ Post College \_\_\_\_\_

Annual Combined Income  
Less than \$10,000 \_\_\_\_\_ > 25,000 - 50,000 \_\_\_\_\_  
10,000 - 25,000 \_\_\_\_\_ Over 50,000 \_\_\_\_\_

What best describes your community of residence?  
\_\_\_\_\_ Rural (less than 10,000) \_\_\_\_\_ Urban (more than 10,000)

Are you presently enrolled (or eligible) for Medicaid? YES \_\_\_\_\_ NO \_\_\_\_\_ Don't Know \_\_\_\_\_

Do you presently have Dental Insurance? YES \_\_\_\_\_ NO \_\_\_\_\_

On the average, how often does your child visit the dentist?  
Every 6 months \_\_\_\_\_ For emergency only \_\_\_\_\_  
Once a year \_\_\_\_\_ Never \_\_\_\_\_

Does your child routinely receive or use any of the following (Please check all that apply)

Fluoride applications after having teeth cleaned in a dental office \_\_\_\_\_  
Use of fluoride toothpaste \_\_\_\_\_  
Use of fluoride mouthrinse \_\_\_\_\_  
Use of fluoride tablets or drops \_\_\_\_\_  
None of the above \_\_\_\_\_

I have read the description of the dental study and wish my child to participate in the program. I understand that participation is voluntary and that my child is free to withdraw at any time.

CHILD'S SIGNATURE \_\_\_\_\_

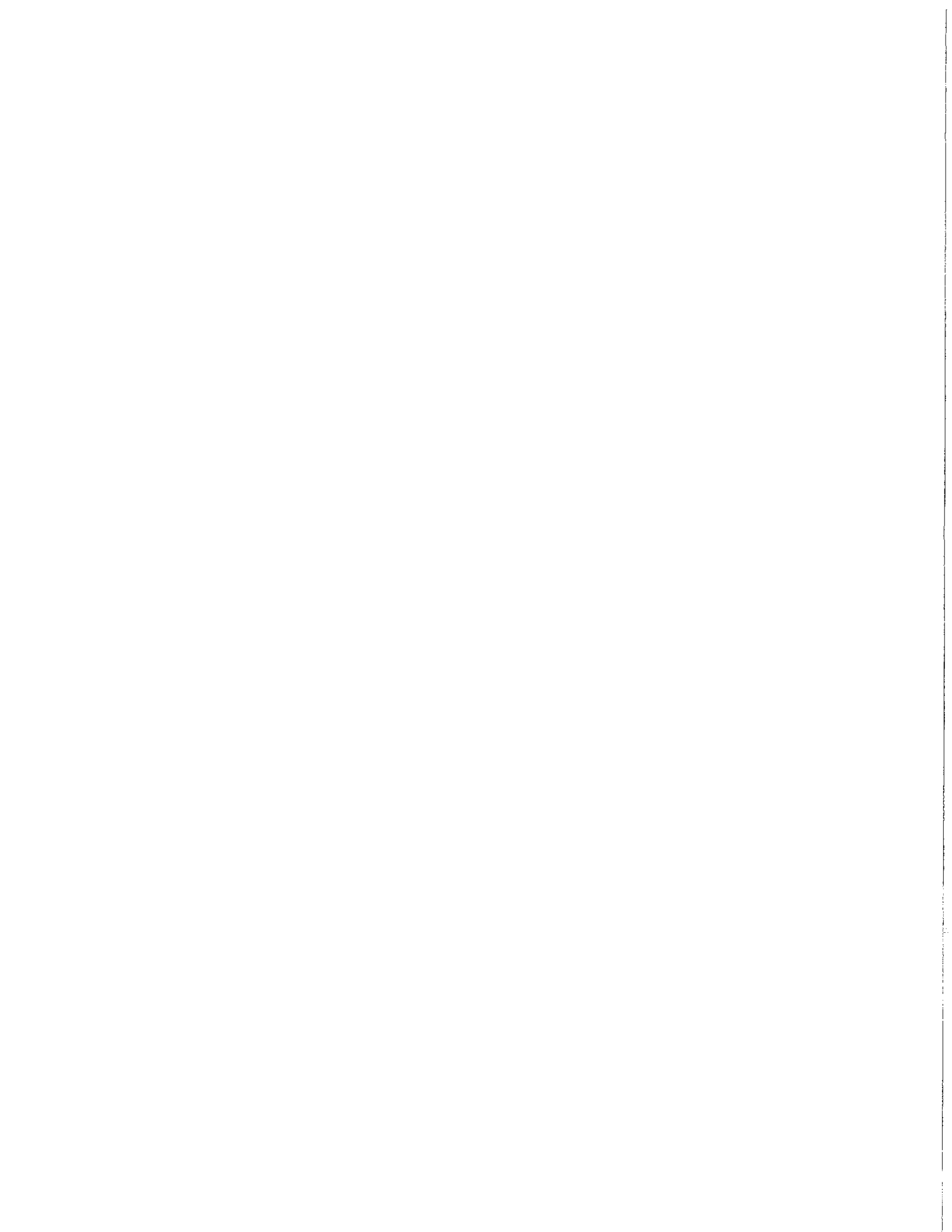
PARENT'S (Guardian's) SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

PARENT'S (Guardian's) SIGNATURE \_\_\_\_\_

**AFTER YOU HAVE COMPLETED ALL QUESTIONS ABOVE, TEAR OFF AND KEEP THE PINK  
COPY, RETURN THE WHITE AND YELLOW COPIES TO YOUR SCHOOL**

OFFICE USE ONLY

REVIEWER \_\_\_\_\_ DATE \_\_\_\_\_



Estimados padres y estudiantes:

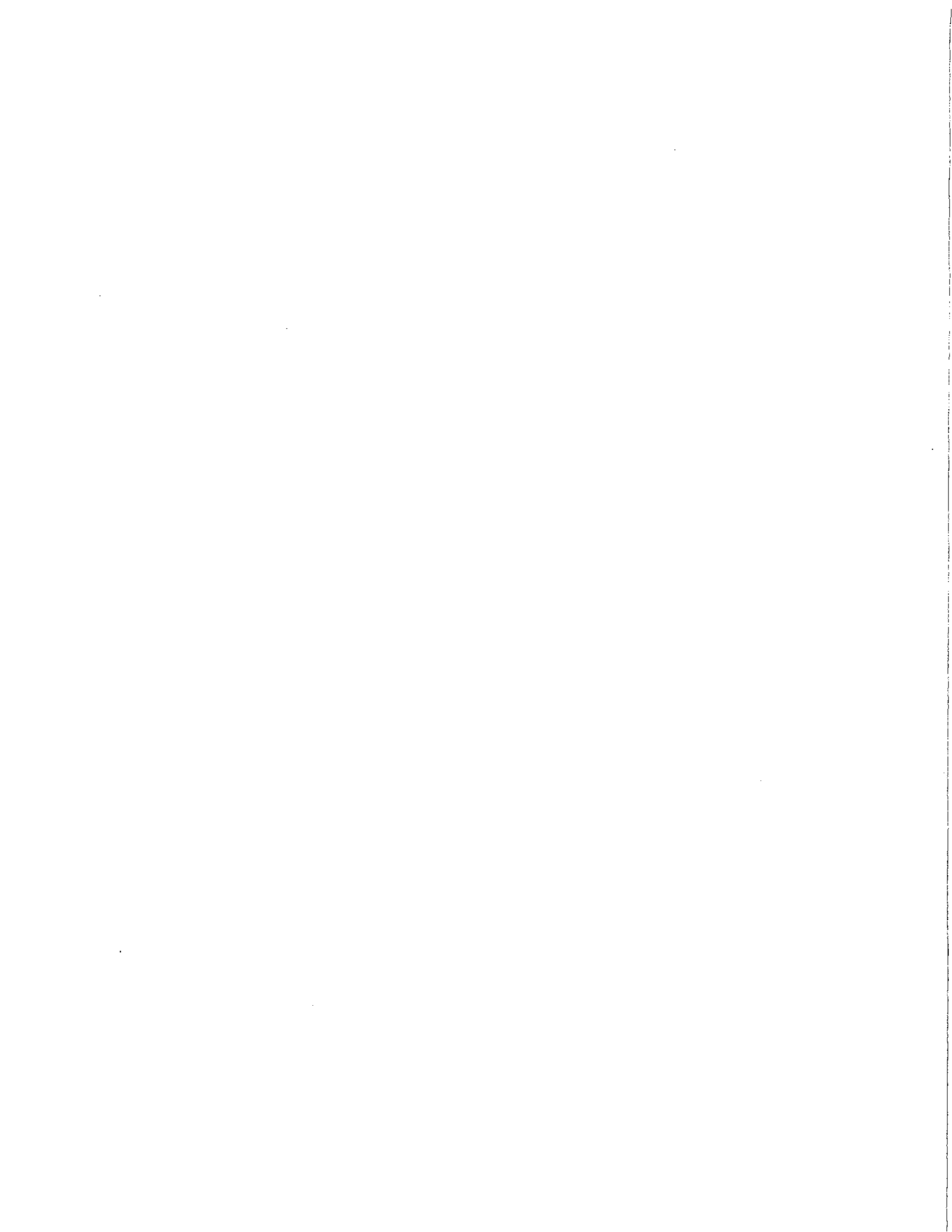
Cada 10 años, el Departamento de Salud conduce una encuesta para evaluar la salud dental de los niños en edad escolar residentes en el estado de Indiana. El programa incluye aproximadamente 2,000 niños seleccionados de diversas comunidades. Un dentista de la División Dental del Estado de Indiana hará un detallado examen dental durante las horas regulares de escuela. Los exámenes serán realizados usando instrumentos dentales standards, así como también equipos portables. El examen no incluirá el uso de rayos X. La participación de los estudiantes es estrictamente voluntaria. A cambio de participar en el estudio, su hijo recibirá un exhaustivo examen dental sin costo alguno, un cepillo dental, y una carta con el resumen de los resultados del examen.

Si usted quiere que su hijo participe, por favor llene la parte de atrás (blanca) de esta página de la mejor forma que pueda. La información recolectada será considerada confidencial. Este seguro de escribir el nombre, sexo y edad de su hijo. También recuerde de firmar y poner la fecha en la parte de abajo de la página donde dice Padres (Guardian). Su firma indica que usted ha dado el necesario permiso para la participación de su hijo en el estudio. Si usted tiene alguna pregunta o necesita más información, por favor sientese libre de llamarme al (317)633-8418.

Muchas gracias por la ayuda prestada al programa.

Sinceramente,

Mark Mallatt, DDS.





## Your Child Is Special

### Why Is My Child Special?

Your child is special because he or she is one of only 2,000 school-age children across Indiana who has been chosen to represent hundreds of other school children his or her age in the Indiana Oral Health Survey. Since 1958, statewide surveys to assess the oral health status of our children have been performed every 10 years (the last one was conducted in 1981-82). Participation by your child in this survey is strictly voluntary. The results of this survey will be used to plan health and educational programs for school-age children for the next 10 years. If you are willing for your child to participate in the survey, fill out the informed consent letter and promptly return it to your child's school.

### What Is The Indiana Oral Health Survey?

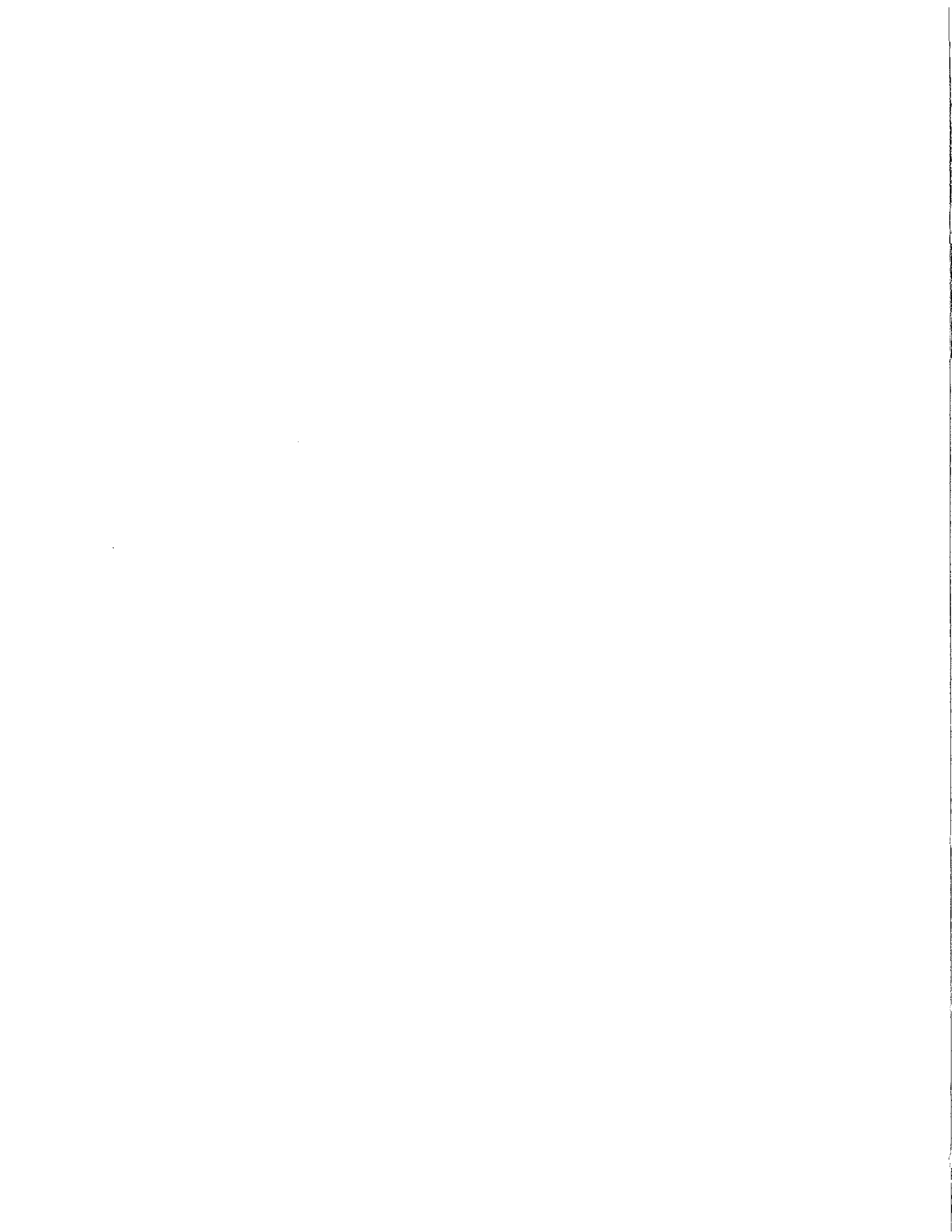
This is a survey of children to find out how much tooth decay and gum disease there is in our state. It includes a dental examination of each child, using a mouth mirror and simple dental explorers, and the collecting of basic information on each child from the medical questionnaire. The examination will be conducted by a licensed dentist in your child's school. There will be no cost to you for the child's exam. No x-rays will be taken, nor will any treatment be provided. This is only a survey examination. Your child still needs regular dental care by your family dentist and proper home care. You will be notified if the survey dentist finds that your child needs additional dental care, so that you can make an appointment with your family dentist.

### Who Will Know The Results Of My Child's Examination?

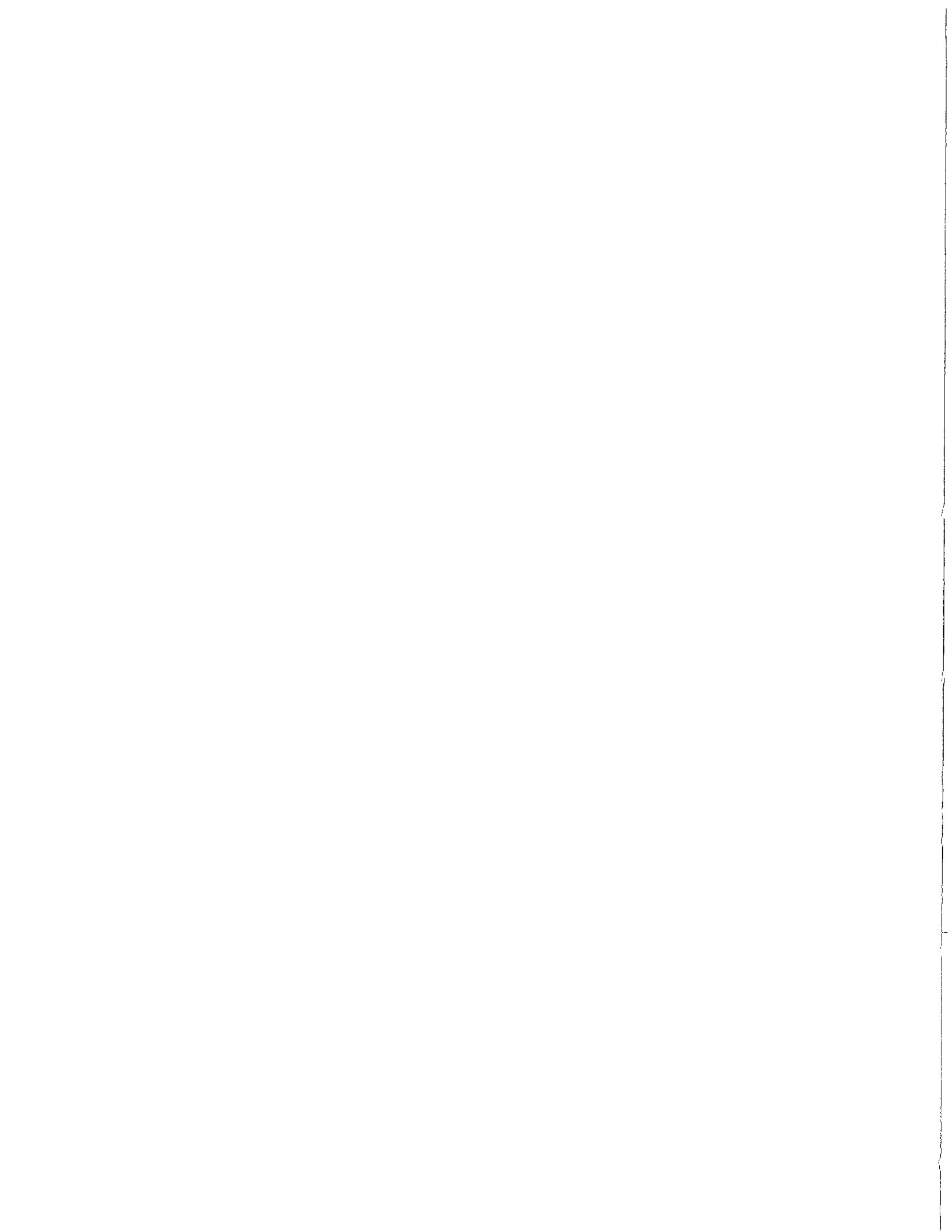
While the general results of this survey may be published at the end, you are assured that none of the participants' records or intraoral photographs if taken will be identified personally. Also, all individual-socioeconomic and demographic data will be kept confidential. Parents will receive notification if the child needs additional dental care.

### Where And How Will The Examination Be Given?

A licensed dentist from the Indiana State Department of Health will perform a thorough dental examination of the oral hard and soft tissue during regular school hours. The examinations will be conducted using standard dental instruments and portable dental equipment so that your child's school day will be interrupted as little as possible. The examination will take approximately 10-15 minutes for each child.



## APPENDIX 3



Evan Bayh, Governor

John C. Bailey, M.D., State Health Commissioner

Indiana State Department of Health  
1330 West Michigan Street  
P.O. Box 1964  
Indianapolis, IN 46206-1964  
317/633-0100 Fax: 317/633-0776



Indiana State Department of Health

An Equal Opportunity Employer

Dear Parent:

Thank you for allowing your child to participate in the Indiana Oral Health Survey. Your cooperation helps various agencies in identifying the dental needs and appropriate preventive programs for Indiana children.

This survey examination is not intended to replace a complete examination by your family dentist (which might include x-rays). If your child is receiving regular checkups, your family dentist may already be aware of the following:

- No obvious problems - regular dental checkups are recommended.
- Questionable area(s) on teeth which should be examined by a dentist in the near future, or at your child's next checkup.
- Oral condition needing care by a dentist. Please make an appointment as soon as possible.
- Better daily brushing and flossing is recommended.

Comments:

Your child was:

- Not examined because of a medical condition.
- Absent at the time of the examination.

You are encouraged to make appointments for your child with a dentist for regular checkups. While visiting your dentist, don't forget to ask about sealants to prevent cavities.

For those who qualify, Medicaid will pay for some dental treatment on children.

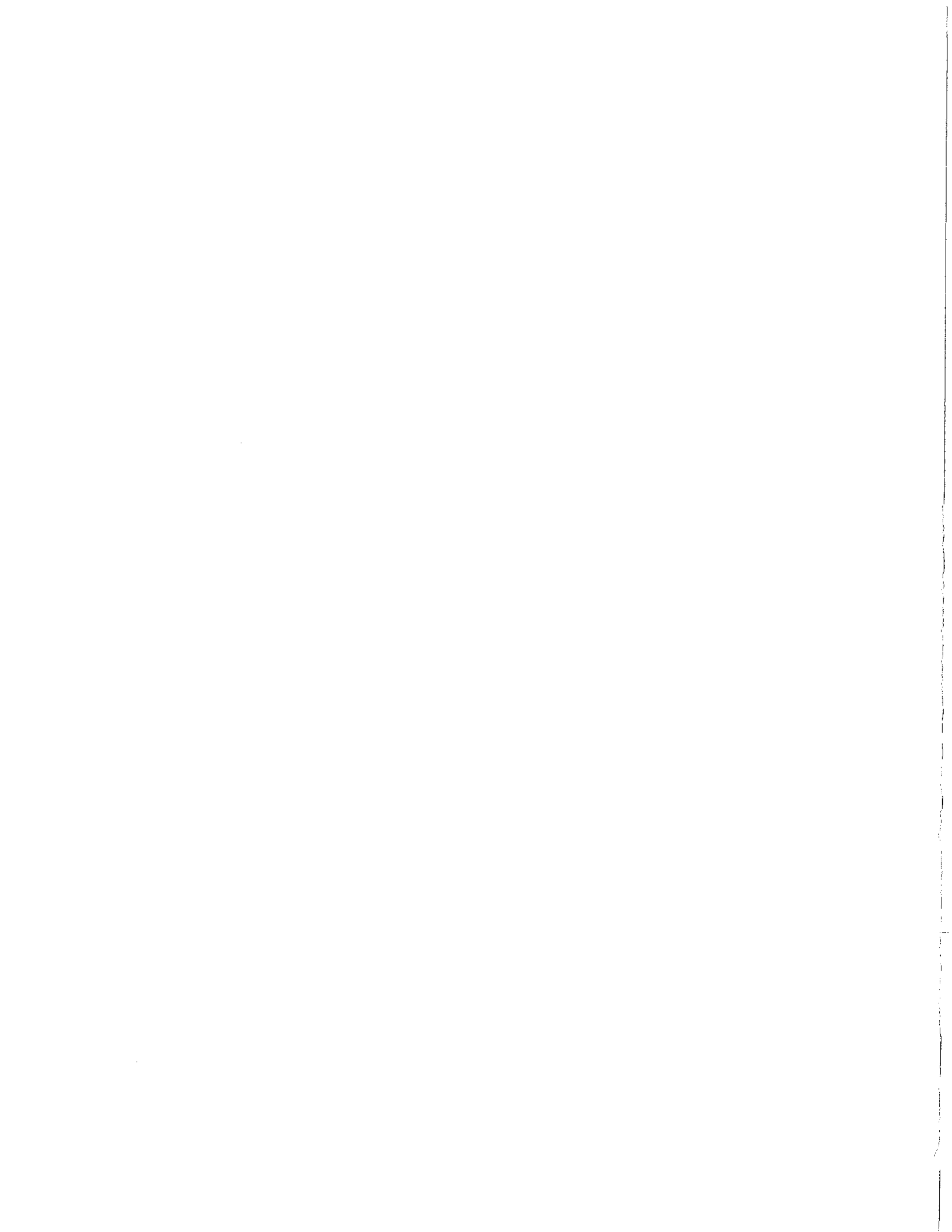
Sincerely,

*Mark Mallatt*

MARK E. MALLATT, D.D.S.  
PROJECT DIRECTOR



## APPENDIX 4

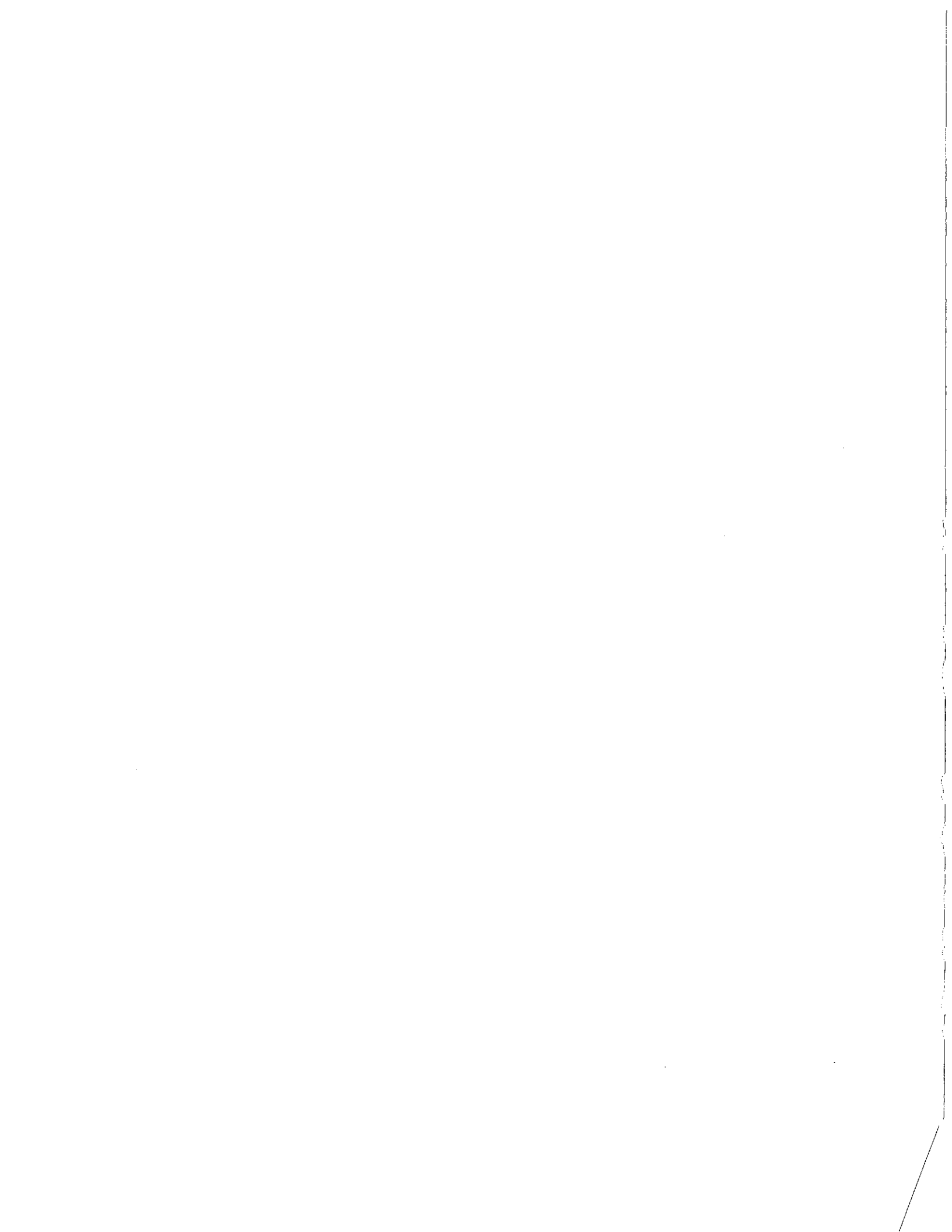




**COUNTIES SURVEYED****COUNTY CODE**

Allen	02
Delaware	18
Fayette	21
Grant	27
Greene	28
Hamilton	29
Hendricks	32
Lake	45
Marion	49
St. Joseph	71
Scott	72
Sullivan	77
Vanderburgh	82
Vigo	84

Within these counties, schools were identified by school officials which have a relatively high proportion of minority students. Recruiting for this survey was targeted to these high-minority schools. However, it was found that many of the schools targeted from the 11 minority counties of Indiana did not wish to participate in the survey. Schools from other counties not listed as minority counties were used, however the sample of white to non-white is still within the parameter of 50:50.



## APPENDIX 5



*Evan Bayh, Governor*

*John C. Bailey, M.D., State Health Commissioner*

Indiana State Department of Health  
1330 West Michigan Street  
P.O. Box 1964  
Indianapolis, IN 46206-1964  
317/633-0100 Fax: 317/633-0776



Indiana State Department of Health

An Equal Opportunity Employer

November 2, 1992

H. Dean Evans, Superintendent  
Indiana Department of Education  
Indiana State House, Room 229  
Indianapolis, IN 46204

Dear Doctor Evans:

As you know the Indiana State Department of Health is responsible for the identification and administration of various programs designed to improve the health and welfare of the people of Indiana. At periodic intervals it is necessary to reassess the needs of our constituents in order to develop the most appropriate programs to address these needs in the future. In many instances these efforts require the cooperation and assistance of statewide organizations such as yours and we are now seeking your support for one of these endeavors.

At 10-year intervals beginning in 1959, we have conducted statewide surveys of the prevalence of dental disease in Indiana school children. The results of these surveys have been instrumental in the development of programs to prevent dental disease. We are proud of the fact that these efforts have resulted in a decline in the prevalence of dental caries in Indiana children.

The 1992-93 oral health survey has three major purposes. The first purpose is to target special population groups to assess their dental needs. Secondly, obtain data which will address points relative to the Health Status Objectives for the Year 2000. Thirdly, to continue to evaluate the status of a statewide statistical random sample of school age children.

During the next 7 months we are planning to conduct our fourth statewide survey and we would like to obtain your support for this program. If possible, we would like a letter of endorsement from you which we could then send the selected school corporations which are going to participate in this survey. A suggested letter is enclosed; however, feel free to make changes if necessary.

We are confident that with your support and the cooperation of the school corporations, the oral health survey will be successful and we will be able to identify the present dental health needs of our children, and thus better direct statewide emphasis to improve their health and well-being. Should you have any questions, please do not hesitate to call.

Sincerely,

*Mark Mallatt*

Mark E. Mallatt, D.D.S.  
Project Director  
Division of Dental Health  
317/633-8418

Enclosure

Suggested Letter From Doctor Evans to School Superintendents

Dear Superintendent:

We periodically work with the Indiana State Department of Health in matters pertaining to the health of school children. They have recently asked for our endorsement for a statewide survey to determine the prevalence of dental disease in Indiana school children. Previous surveys were conducted in 1959, 1970, and 1981, which have been instrumental in developing programs to prevent dental disease. We are proud of the fact that these efforts have resulted in a decline of dental disease in Indiana children. The results of the present survey are necessary to ascertain the degree of success achieved with preventive programs during the past three decades and to identify the appropriate programs for the future.

In brief, a total of approximately 1,500 children representing grades 1, 3, 7 and 10 will be randomly selected for the survey. Informed parental consent will be obtained in order for the children to participate. Those returning a consent form will receive a dental examination. Examinations will be performed in the school by a dentist from the Indiana State Department of Health's, Dental Division. Children in need of immediate attention will be advised through a note to their parents to visit their family dentist. It is expected that in most instances only a few classrooms in various school corporation will be selected and efforts will be made to minimize the disruption to your system. Each individual examination will only require approximately five to ten minutes. The survey will begin in December and conclude in early May 1993.

This survey is endorsed by a variety of organizations including various divisions of the Indiana State Department of Health (Dental Division; Division of Maternal and Child Health), the Indiana Dental Association, and the Indiana University School of Dentistry. We believe this program is beneficial to our children and I am encouraging you to cooperate with it should your schools be selected.

Sincerely,

H. Dean Evans  
Superintendent





## APPENDIX 6



Evan Bayh, Governor

John C. Bailey, M.D., State Health Commissioner

Indiana State Department of Health  
1330 West Michigan Street  
P.O. Box 1964  
Indianapolis, IN 46206-1964  
317/633-0100 Fax: 317/633-0776



Indiana State Department of Health

An Equal Opportunity Employer

November 5, 1992

Dr. William Coats  
Fort Wayne Community Schools  
1200 South Clinton Street  
Fort Wayne, IN 46802-3594

Dear Doctor Coats:

Every 10 years a statewide survey is conducted to determine the dental health status of school age children residing in Indiana. The results of these surveys have been extremely useful to various agencies in documenting the change in the extent of dental disease and in measuring the effectiveness of past preventive efforts.

The Indiana State Department of Health in collaboration with the Indiana University School of Dentistry and with the approval of local officials is once again undertaking a dental health survey of children living in selected communities of Indiana.

The program will be initiated in the Fall of 1992 and will involve approximately 2,000 children. As you probably know, we rely heavily upon the goodwill and cooperation of the various Indiana school systems to make possible these surveys. In view of this, we would like to propose that a few representative schools in your corporation be included in this survey.

1. The following summarizes the general characteristics of the proposed survey:
  - a. The survey will include about 2,000 children. About 1,500 children ages 6, 8, 12 and 15 (about 350 of each age will be recruited from public school systems.
  - b. A licensed dentist from the Indiana State Department of Health will perform a dental examination of the oral hard and soft tissues.
  - c. We will prepare and distribute Informed Consent Letters, explaining the details of this program

to be sent to the parents of the children within this age range. Participation will be strictly voluntary. Those children who return signed consent forms will receive a dental examination.

2. The mechanics of the examination procedure are:

- a. We are completely self-supporting so far as equipment and personnel are concerned. With regard to a place for conducting the examinations, we require an area of approximately 900 square feet with two or more electrical outlets (we usually work on a stage, corner of a gymnasium, or an extra classroom). Every attempt will be made to disrupt the student's schedule as little as possible.
- b. With regard to time requirements, each child will only require about 10 minutes to complete the examination; we usually examine about 50-70 children per school day.
- c. The examinations will consist of the following:
  1. A thorough visual-tactile examination to determine the current caries status of each tooth (no x-rays). Within that examination data will be gathered on Baby Bottle Tooth Decay and the prevalence of pit and fissure sealants.
  2. Data will be collected on gingivitis and oral soft tissue pathology.
  3. As part of the overall inspection of the oral cavity, the prevalence of dental fluorosis will be noted.
  4. Also data relative to oral health habits, past history of dental care and socioeconomic parameters will be obtained via questions incorporated into the informed consent/medical history form.

Benefits:

A direct contact with dental personnel within the school environment without actual restorative treatment being performed. This helps in familiarizing the children with dentistry and produces a direct educational

impact on the children in the field of dental health. Each child will receive a complementary toothbrush and will receive educational dental brochures when necessary.

Advisory letters will be given to every child examined indicating the results of the examination. The letters should be taken home to the parents. The school nurse will also receive a copy of the advisory letter.

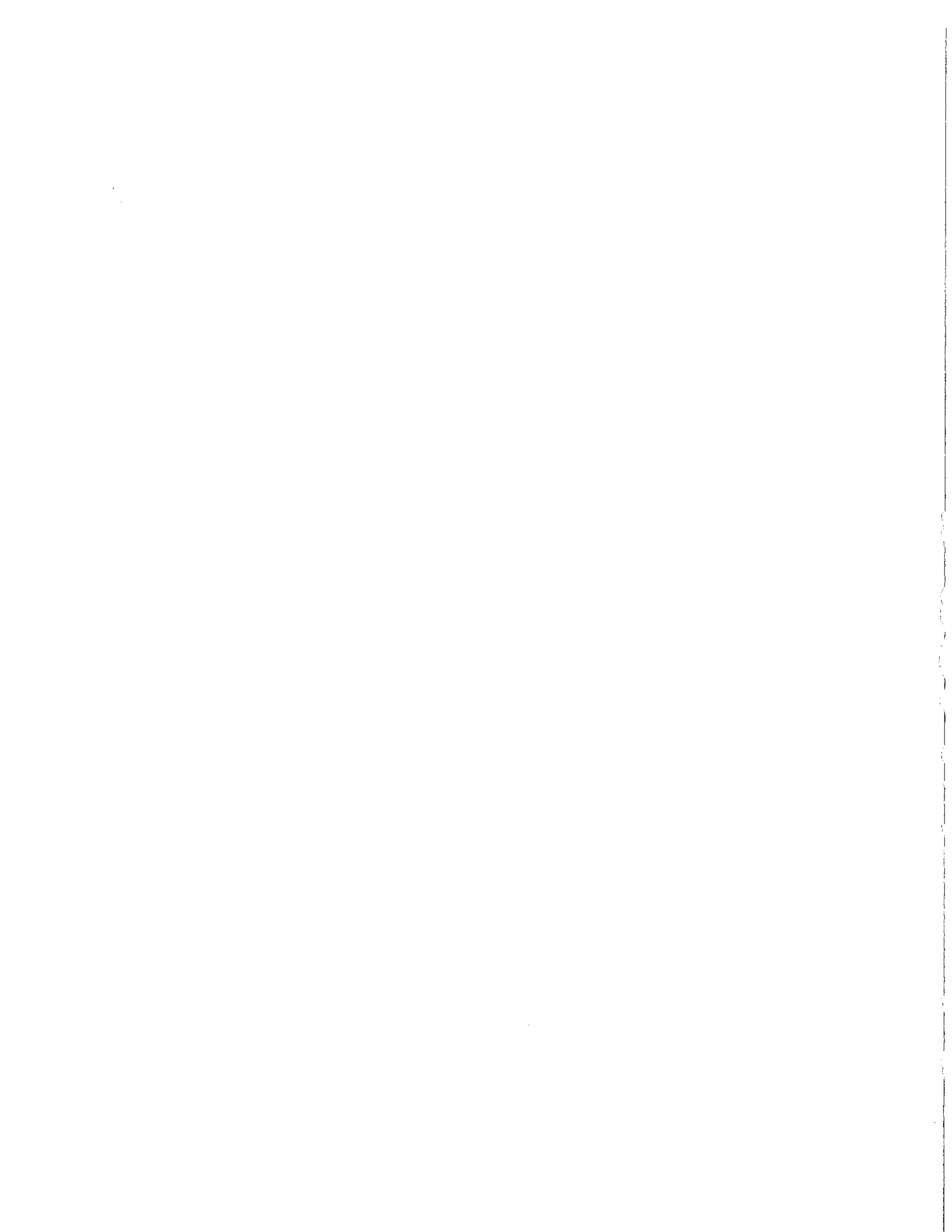
The results of this survey will be of great value in determining future oral health objectives and target areas. It will also give us a chance to evaluate past preventive efforts.

I very much appreciate your reviewing this material and hope that this introductory summary has covered the most important aspects of the Indiana Oral Health Survey we are proposing. I will be in contact with you within a few days to determine whether you are interested in being included in this program and to answer any questions you might have.

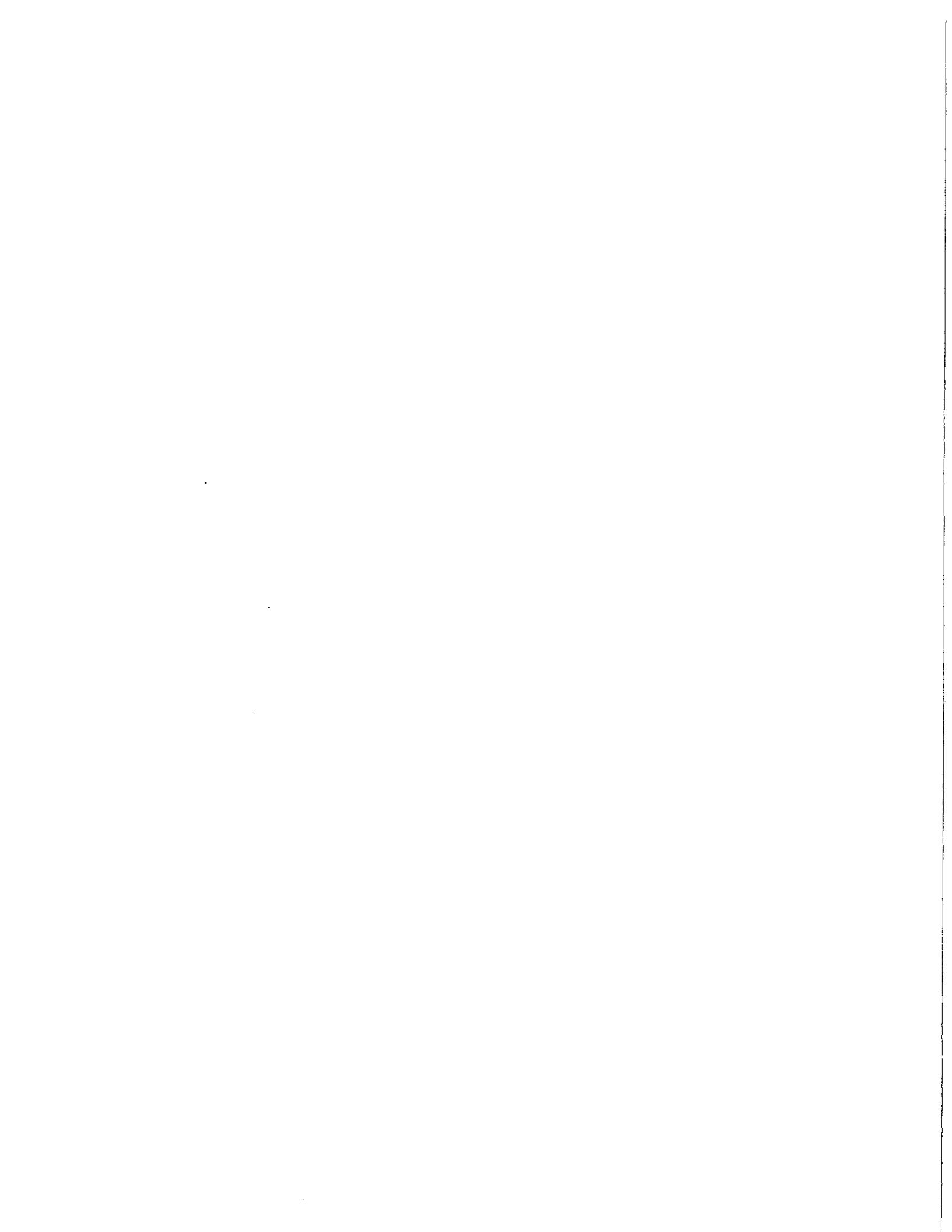
Sincerely,



MARK E. MALLATT, D.D.S.  
PROJECT DIRECTOR  
DIVISION OF DENTAL HEALTH  
317/633-8418



## APPENDIX 7





**INDIANA STATE DEPARTMENT OF HEALTH  
DIVISION OF DENTAL HEALTH**

Name: \_\_\_\_\_

Location: \_\_\_\_\_

Age: \_\_\_\_\_ Sex: \_\_\_\_\_ M \_\_\_\_\_ F

Date: \_\_\_\_\_

Race: \_\_\_\_\_ White \_\_\_\_\_ Hispanic \_\_\_\_\_ North American Indian

Examiner: \_\_\_\_\_

\_\_\_\_\_ Black \_\_\_\_\_ Asian/Pacific Islander

Subject ID: \_\_\_\_\_

**I. DECAYED, MISSING, FILLED TEETH/SURFACES**

Upper Right								Upper Left								
7	6	5	4	3	2	1		2	1	2	3	4	5	6	7	
2nd M	1st M	2nd Bi	1st Bi	Cusp.	Lat.	Cent.		Cent.	Lat.	Cusp.	1st Bi	2nd Bi	1st M	2nd M		
T								T								
occ								occ								
buc								buc								
mes								mes								
lin								lin								
dis								dis								

Lower Right								Lower Left								
7	6	5	4	3	2	1		1	2	3	4	5	6	7		
2nd M	1st M	2nd Bi	1st Bi	Cusp.	Lat.	Cent.		Cent.	Lat.	Cusp.	1st Bi	2nd Bi	1st M	2nd M		
T								T								
occ								occ								
buc								buc								
mes								mes								
lin								lin								
dis								dis								

TOTAL deft \_\_\_\_\_ TOTAL defs \_\_\_\_\_

TOTAL DMFT \_\_\_\_\_ TOTAL DMFS \_\_\_\_\_

**IV. FLUOROSIS**

UPPER								
1st Molar			Central			1st Molar		
B	O	L	Lab	Lin		B	O	L

RIGHT LOWER LEFT

1st Molar			Central			1st Molar		
B	O	L	Lab	Lin		B	O	L

**V. GINGIVITIS**

UPPER FACIAL											
1st Molar			Central			1st Molar					
D	F	M	D	F	M	D	F	M			
D	L	M	D	L	M	D	L	M			

RIGHT UPPER LINGUAL LEFT

LOWER FACIAL											
1st Molar											
D	F	M	D	F	M	D	F	M			
D	L	M	D	L	M	D	L	M			

LOWER LINGUAL

**II. BABY BOTTLE TOOTH DECAY**

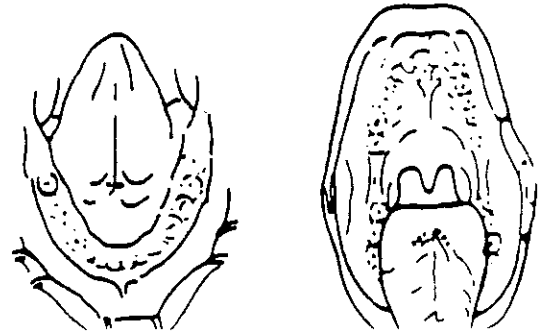
Teeth Show **NO** evidence of baby bottle tooth decay.

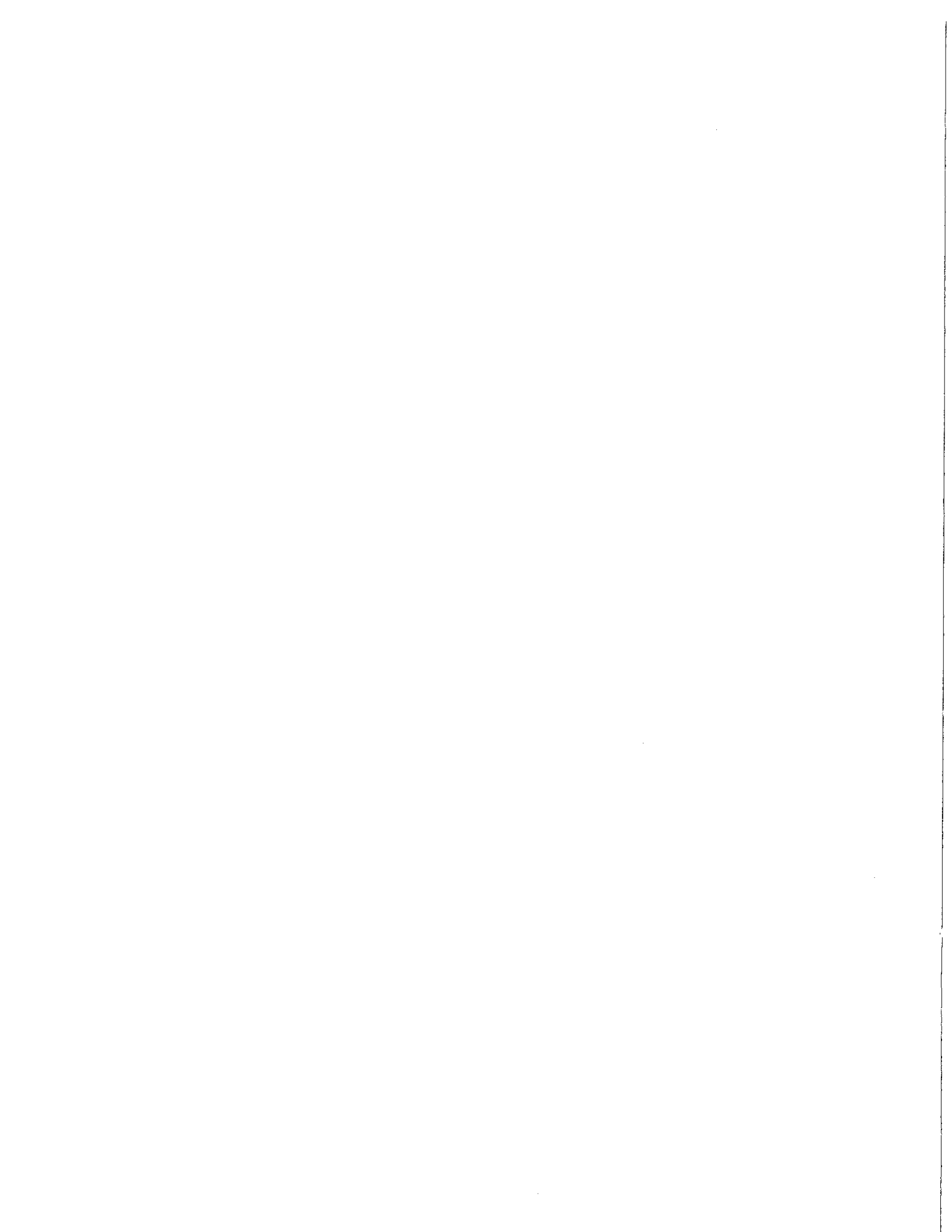
Teeth show **DEFINITE** evidence of baby bottle tooth decay.

**III. SOFT TISSUE PATHOLOGY**

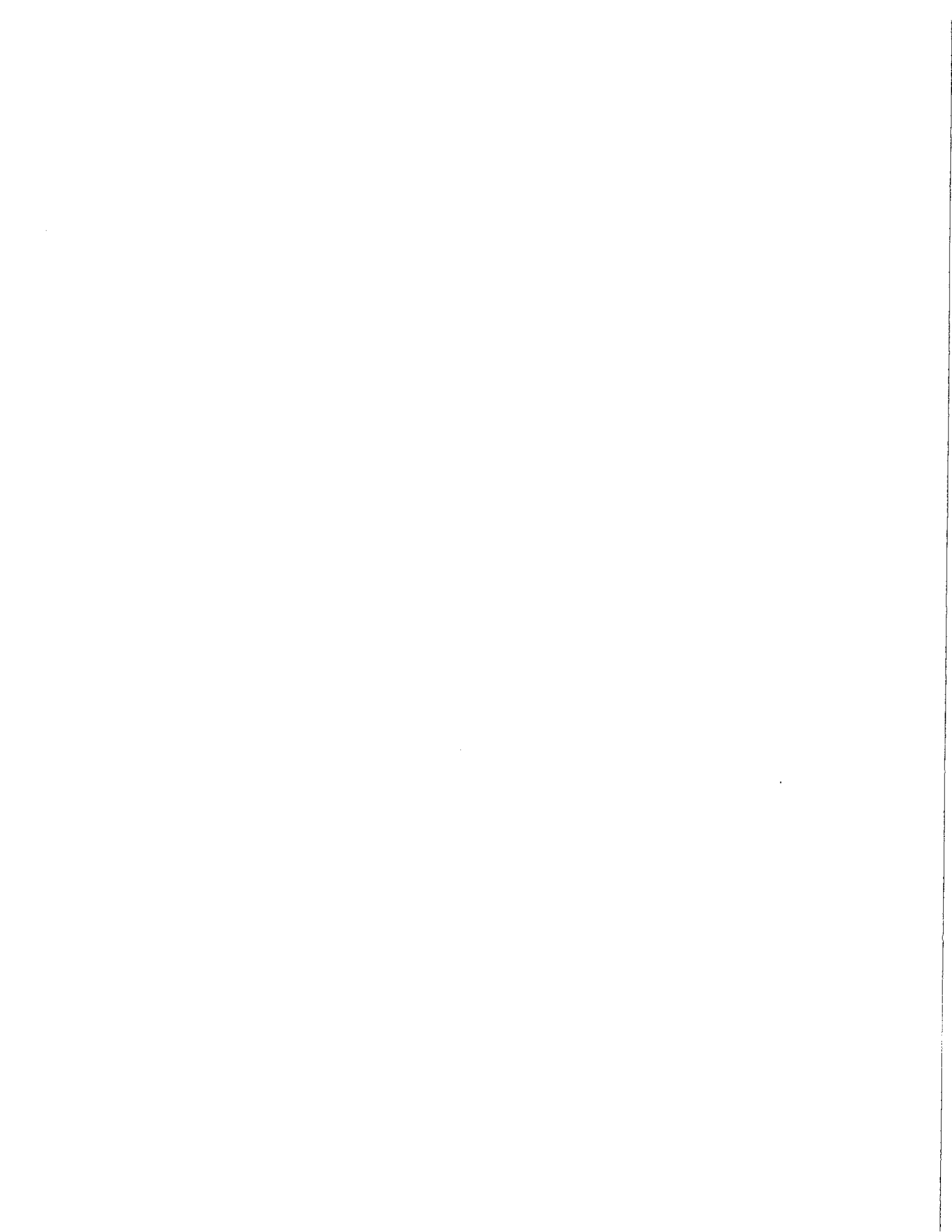
Tissue Examined	Normal
Perioral area/lip	_____
Labial/Buccal Mucosa	_____
Gingivae	_____
Palate/Hard & Soft	_____
Oropharynx/Uvula	_____
Tongue/Lateral Border	_____
Sublingual/Floor	_____

If Abnormal, Describe and Indicate Location on Diagram Below



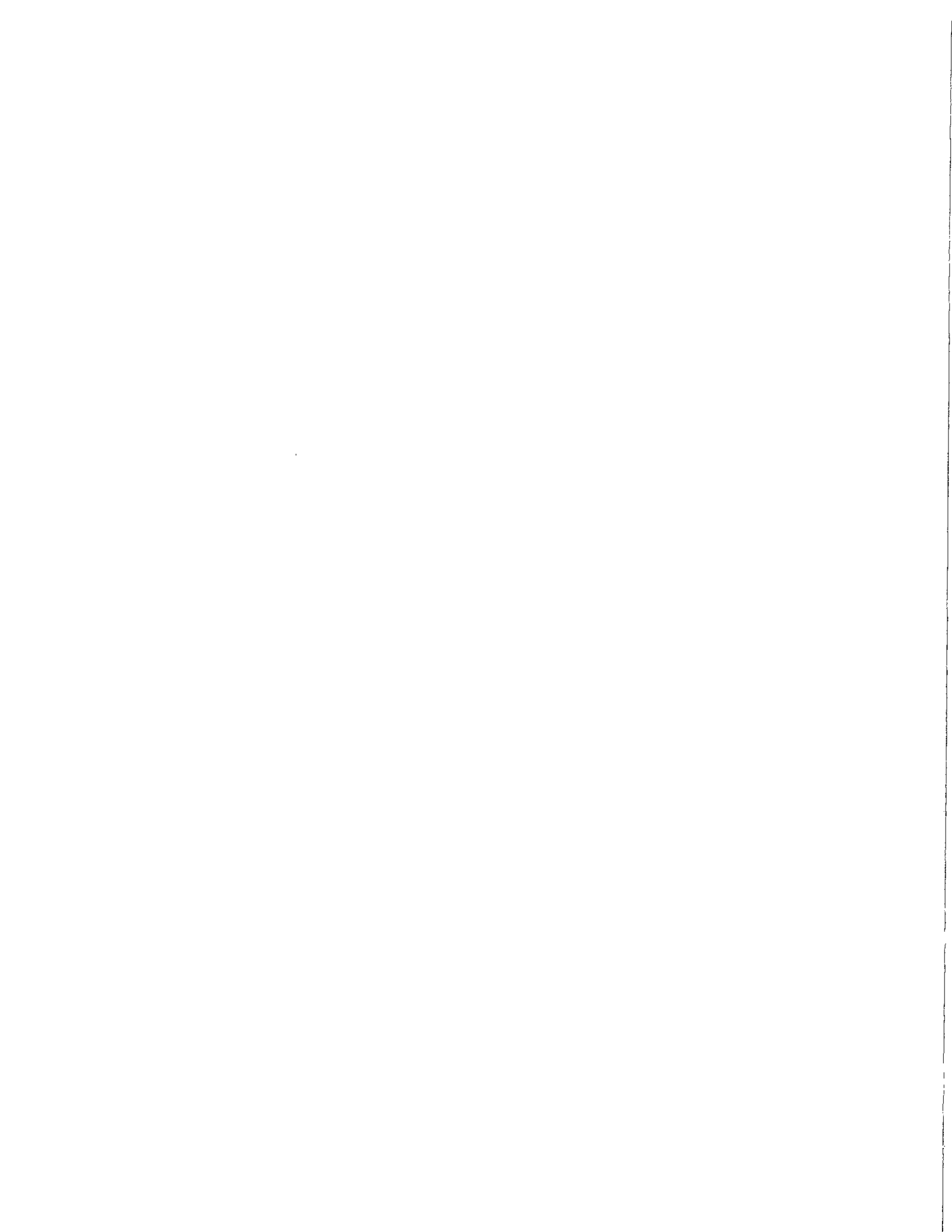


## APPENDIX 8



## Equipment

Portable Dental Chair  
Portable Dental Light  
Air Compressor / Air Syringe  
Mirrors  
Explorers  
Card Table  
Recorders Side Arm Chair  
Examiners Stool  
Disposable Gloves  
Disposable Gown  
Disposable Face Mask  
Disposable Gauze  
Disposable Table Covers  
Disposable Plastic Drapes  
Plastic Syringe Sleeves  
Disposable Syringe Tips  
Disposable Plastic Handle Covers  
Disposable Button Covers  
Protective Eye wear  
Heating Pad with Disposable Sterile Towels  
Oxygen Tank with mask  
First Aid Kit  
Head Rest Covers  
Trash Bags  
Toothbrushes  
Dental Health Posters  
Dental Health Curriculum Materials  
Containers for Contaminated Instruments  
Stickers  
Tissues  
Disinfectant spray  
Electrical Equipment - extention cords; 3-way outlets; adapters  
Tool Box with Tools  
Sterile Scissors



## APPENDIX 9





*Evan Bayh, Governor*

*John C. Bailey, M.D., State Health Commissioner*

Indiana State Department of Health  
1330 West Michigan Street  
P.O. Box 1964  
Indianapolis, IN 46206-1964  
317/633-0100 Fax: 317/633-0776



Indiana State Department of Health

An Equal Opportunity Employer

May 14, 1993

Ms. Jeanine Terrio  
LaSalle High School  
2701 West Elwood Avenue  
South Bend, IN 46628-2899

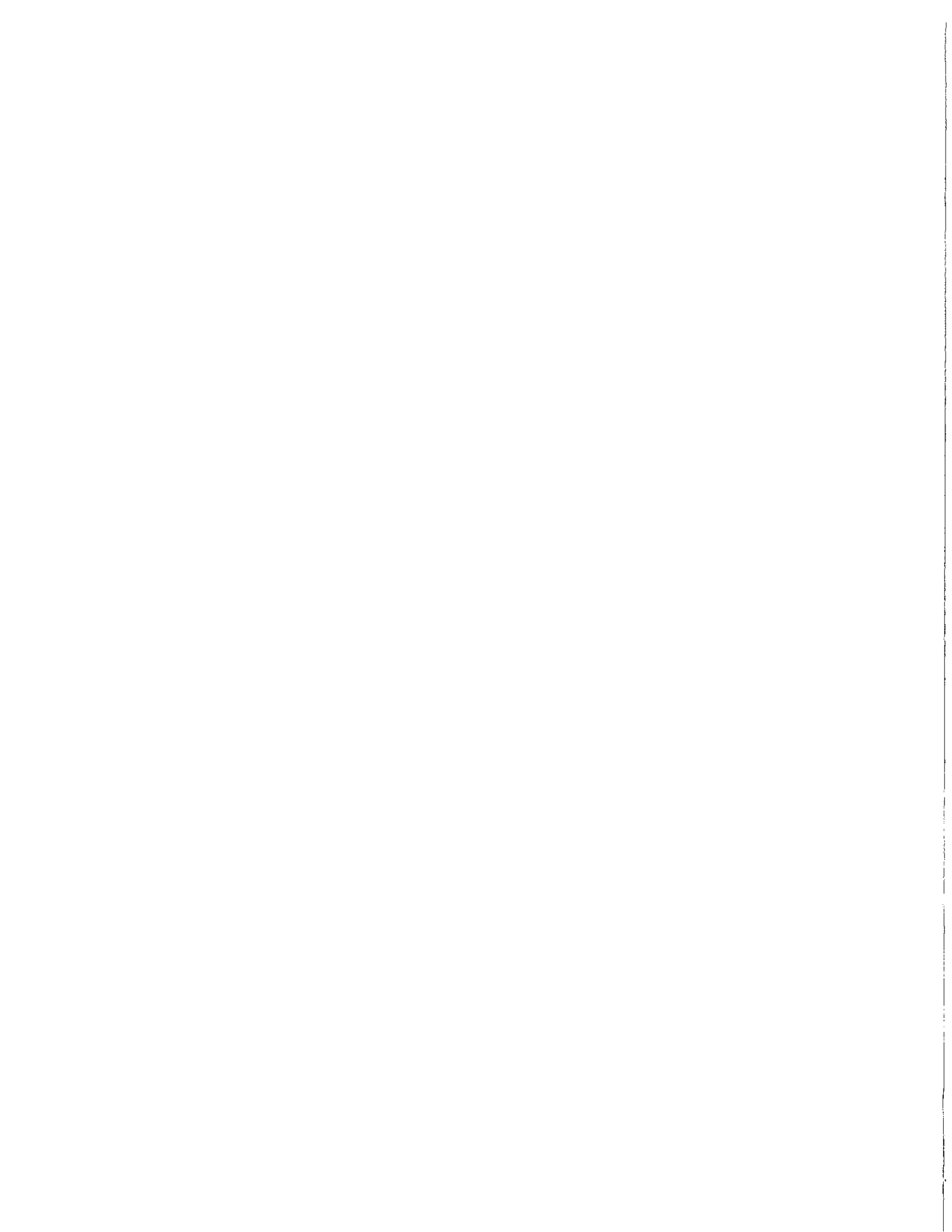
Dear Jeanine:

I would like to take this opportunity to thank you for your help while we were at LaSalle High School. Your assistance in the Indiana Oral Health Survey has been invaluable. Without your assistance and the assistance of others, the survey could not have been completed in our state. The results of this survey will be used to plan health and educational programs for school age children for the next ten years.

Thank you again for your help.

Sincerely,

BECKY W. CHEETHAM  
PROJECT COORDINATOR  
DIVISION OF DENTAL HEALTH  
317/633-8418



# CLINICAL DATA

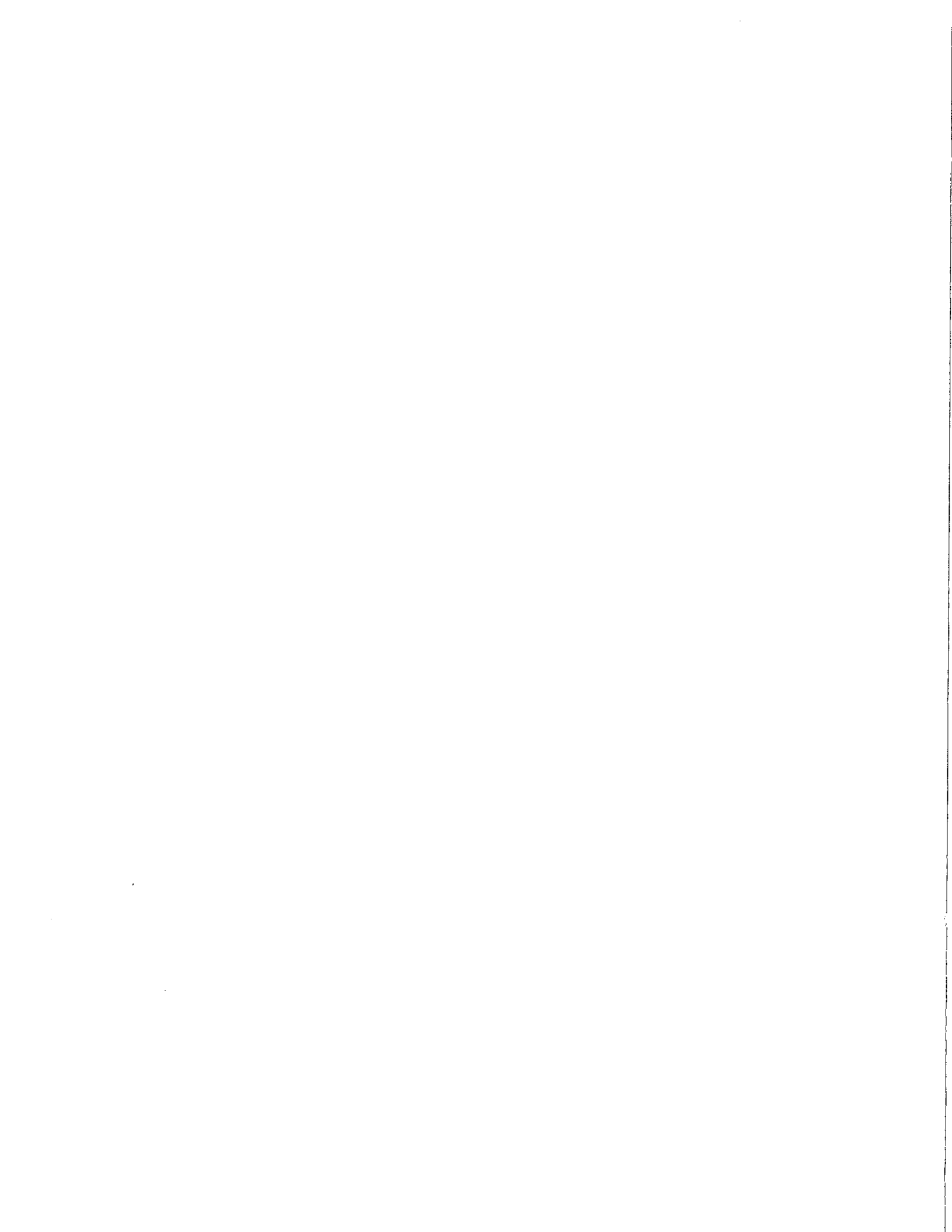


TABLE 1

## SUMMARY OF DENTAL CARIES PREVALENCE FOR ENTIRE POPULATION SURVEYED

DECIDUOUS TEETH

AGE*	NUMBER CHILDREN	deft	defs
0.8	1	0.00±0.00	0.00±0.00
1	18	0.00±0.00	0.00±0.00
2	68	0.00±0.00	0.00±0.00
3	98	0.55±1.61	1.08±4.37
4	205	0.92±1.85	1.17±2.54
5	239	1.33±2.21	2.28±4.92
6	249	1.29±1.96	2.50±4.77
7	240	1.70±2.31	3.42±5.90
8	212	1.52±2.10	2.91±5.05
9	300	1.52±2.03	2.91±4.37
10	67	0.99±1.32	1.63±2.44
11	39	0.59±1.21	0.90±1.98
12	69	0.70±1.06	1.17±1.88
13	40	0.28±0.72	0.45±1.30
14	5	0.80±1.10	1.40±1.95
15	1	0.00±0.00	0.00±0.00
16	2	0.50±0.71	0.50±0.71
18	1	1.00±0.00	1.00±0.00
TOTAL	1854	1.20±1.96	2.20±4.44

TABLE 1 (CONTINUED)

SUMMARY OF DENTAL CARIES PREVALENCE FOR ENTIRE POPULATION SURVEYED

PERMANENT DENTITION

AGE*	NUMBER CHILDREN	TOTAL TEETH	DMFT	SURFACES AT RISK	DMFS	FS	DS
2	1	1.00±0.00	0.00±0.00	4.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00
3	1	3.00±0.00	0.00±0.00	12.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00
4	7	2.29±1.38	0.29±0.76	8.86±6.52	0.57±1.51	0.00±0.00	0.00±0.00
5	75	2.95±1.73	0.11±0.71	13.00±8.28	0.14±1.05	0.01±0.12	0.13±1.04
6	221	6.01±2.91	0.13±0.52	26.58±12.76	0.15±0.63	0.06±0.45	0.09±0.44
7	236	8.42±2.74	0.25±0.76	36.85±11.41	0.36±1.27	0.20±1.15	0.16±0.59
8	212	11.50±1.99	0.37±0.81	49.41±8.81	0.49±1.20	0.31±1.04	0.18±0.67
9	304	13.04±2.83	0.56±1.02	56.16±13.19	0.80±1.83	0.50±1.41	0.29±1.24
10	73	16.05±4.55	0.68±1.18	70.30±21.25	0.97±1.83	0.64±1.63	0.33±0.87
11	77	22.94±4.63	0.86±1.41	103.31±22.29	0.82±1.64	0.36±1.32	0.08±0.68
12	252	25.56±3.48	1.39±1.87	115.32±16.70	1.88±2.88	1.31±2.24	0.54±1.85
13	230	26.52±2.68	1.47±1.96	119.43±12.70	1.96±2.85	1.39±2.50	0.54±1.33
14	44	27.18±2.81	2.14±2.70	122.45±13.09	2.75±3.74	2.23±3.72	0.52±1.00
15	58	27.17±1.40	2.59±2.44	122.57±7.47	3.72±3.96	2.69±3.56	0.67±1.19
16	69	27.46±1.07	2.58±2.86	123.93±6.12	3.91±5.18	3.09±4.97	0.65±1.33
17	11	27.64±0.67	3.64±4.34	125.82±4.40	5.18±7.21	3.82±5.88	0.82±1.25
18	3	26.33±2.08	3.00±3.00	118.67±9.29	3.00±3.00	2.33±3.21	0.67±1.15
TOTAL	1874	16.27±8.90	0.87±1.66	72.35±40.76	1.20±2.59	0.83±2.18	0.33±1.17

TABLE 1 (CONTINUED)

SUMMARY OF DENTAL CARIES PREVALENCE FOR ENTIRE POPULATION SURVEYED

AGE*	NUMBER CHILDREN	PERMANENT DENTITION			
		MS	OCCLUSAL SURFACES	BU-LI SURFACES	MES-DIS SURFACES
2	1	0.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00
3	1	0.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00
4	7	0.57±1.51	0.00±0.00	0.29±0.76	0.29±0.76
5	75	0.00±0.00	0.07±0.47	0.03±0.16	0.05±0.46
6	221	0.00±0.00	0.09±0.48	0.05±0.23	0.00±0.07
7	236	0.00±0.00	0.19±0.68	0.14±0.62	0.02±0.27
8	212	0.00±0.00	0.29±0.74	0.18±0.59	0.02±0.17
9	304	0.01±0.17	0.45±0.93	0.29±0.78	0.07±0.47
10	73	0.00±0.00	0.56±1.12	0.34±0.77	0.07±0.25
11	77	0.08±0.68	0.66±1.22	0.44±1.12	0.16±0.84
12	252	0.02±0.27	1.21±1.80	0.59±1.14	0.08±0.54
13	230	0.03±0.28	1.31±1.82	0.57±1.19	0.08±0.44
14	44	0.00±0.00	1.81±2.70	0.84±1.35	0.09±0.36
15	58	0.36±1.27	2.36±2.48	1.09±1.50	0.28±0.62
16	69	0.17±1.01	2.35±2.68	1.19±1.83	0.38±1.37
17	11	0.55±1.81	3.27±4.22	1.64±2.34	0.27±0.90
18	3	0.00±0.00	3.00±3.00	0.00±0.00	0.00±0.00
TOTAL	1874	0.03±0.40	0.74±1.56	0.38±0.99	0.08±0.50

TABLE 2

deft BY AGE AND SEX FOR ENTIRE POPULATION (DECIDUOUS)

AGE	BOYS		GIRLS		ENTIRE SAMPLE	
	NUMBER CHILDREN	deft	NUMBER CHILDREN	deft	NUMBER CHILDREN	deft
0.8	0	.	1	0.00±0.00	1	0.00±0.00
1	10	0.00±0.00	8	0.00±0.00	18	0.00±0.00
2	39	0.00±0.00	29	0.00±0.00	68	0.00±0.00
3	50	0.78±2.09	48	0.31±0.80	98	0.55±1.61
4	104	0.83±1.87	101	1.02±1.83	205	0.92±1.85
5	107	1.29±2.15	132	1.36±2.27	239	1.33±2.21
6	128	1.40±2.13	121	1.17±1.77	249	1.29±1.96
7	115	1.63±2.31	125	1.76±2.32	240	1.70±2.31
8	94	1.55±2.16	118	1.49±2.05	212	1.52±2.10
9	165	1.52±2.04	135	1.52±2.03	300	1.52±2.03
10	42	1.21±1.34	25	0.60±1.22	67	0.99±1.32
11	16	1.13±1.59	23	0.22±0.67	39	0.59±1.21
12	37	0.62±1.01	32	0.78±1.13	69	0.70±1.06
13	19	0.21±0.63	21	0.33±0.80	40	0.28±0.72
14	2	0.00±0.00	3	1.33±1.15	5	0.80±1.10
15	0	.	1	0.00±0.00	1	0.00±0.00
16	1	0.00±0.00	1	1.00±0.00	2	0.50±0.71
18	0	.	1	1.00±0.00	1	1.00±0.00
TOTAL	929	1.21±2.00	925	1.19±1.93	1854	1.20±1.96



Table 3

defs by Age and Sex for Entire Population

Age	Girls		Boys		Entire Sample	
	Number Children	defs	Number Children	defs	Number Children	defs
0.8	1	0.00±0.00	0	.	1	0.00±0.00
1	8	0.00±0.00	10	0.00±0.00	18	0.00±0.00
2	29	0.00±0.00	39	0.00±0.00	68	0.00±0.00
3	48	0.58±2.36	50	1.56±5.66	98	1.08±4.37
4	101	1.35±2.59	104	1.00±2.48	205	1.17±2.54
5	132	2.28±5.15	107	2.27±4.64	239	2.28±4.92
6	121	2.10±4.23	128	2.88±5.22	249	2.50±4.77
7	125	3.54±5.91	115	3.28±5.90	240	3.42±5.90
8	118	2.36±3.95	94	3.60±6.12	212	2.91±5.05
9	135	2.87±4.34	165	2.94±4.40	300	2.91±4.37
10	25	0.88±1.81	42	2.07±2.67	67	1.63±2.44
11	23	0.26±0.86	16	1.81±2.71	39	0.90±1.98
12	32	1.31±2.01	37	1.05±1.78	69	1.17±1.88
13	21	0.57±1.54	19	0.32±1.00	40	0.45±1.30
14	3	2.33±2.08	2	0.00±0.00	5	1.40±1.95
15	1	0.00±0.00	0	.	1	0.00±0.00
16	1	1.00±0.00	1	0.00±0.00	2	0.50±0.71
18	1	1.00±0.00	0	.	1	1.00±0.00
<u>TOTAL</u>	925	2.07±4.21	929	2.32±4.65	1854	2.20±4.44

TABLE 4

DMFT BY AGE AND SEX FOR ENTIRE POPULATION AGE 5 AND UP

AGE	GIRLS		BOYS		ENTIRE SAMPLE	
	NUMBER CHILDREN	DMFT	NUMBER CHILDREN	DMFT	NUMBER CHILDREN	DMFT
5	47	0.02±0.15	28	0.25±1.14	75	0.11±0.71
6	114	0.19±0.68	107	0.06±0.23	221	0.13±0.52
7	124	0.23±0.68	112	0.29±0.83	236	0.25±0.76
8	118	0.40±0.87	94	0.34±0.74	212	0.37±0.81
9	139	0.53±1.01	165	0.59±1.03	304	0.56±1.02
10	29	0.79±1.18	44	0.61±1.19	73	0.68±1.18
11	46	1.00±1.46	31	0.65±1.33	77	0.86±1.41
12	142	1.62±1.99	110	1.09±1.65	252	1.39±1.87
13	123	1.66±2.22	107	1.26±1.60	230	1.47±1.96
14	23	2.91±2.95	21	1.29±2.15	44	2.14±2.70
15	41	2.61±2.64	17	2.53±1.94	58	2.59±2.44
16-18	46	2.91±3.42	37	2.51±2.59	83	2.73±3.07
<u>TOTAL</u>	992	0.99±1.84	873	0.73±1.41	1865	0.87±1.66

AGE ADJUSTED MEANS.

GIRLS=0.96

BOYS=0.76

TABLE 5

DMFS BY AGE AND SEX FOR ENTIRE POPULATION AGE 5 AND UP

AGE	GIRLS		BOYS		ENTIRE SAMPLE	
	NUMBER CHILDREN	DMFS	NUMBER CHILDREN	DMFS	NUMBER CHILDREN	DMFS
5	47	0.02±0.15	28	0.36±1.70	75	0.15±1.05
6	114	0.23±0.82	107	0.07±0.28	221	0.15±0.63
7	124	0.27±0.95	112	0.46±1.54	236	0.36±1.27
8	118	0.50±1.22	94	0.48±1.19	212	0.49±1.20
9	139	0.81±2.18	165	0.79±1.48	304	0.80±1.83
10	29	1.10±1.90	44	0.89±1.79	73	0.97±1.83
11	46	1.54±3.03	31	0.84±1.88	77	1.26±2.64
12	142	2.27±3.13	110	1.37±2.45	252	1.88±2.88
13	123	2.23±3.23	107	1.65±2.32	230	1.96±2.85
14	23	3.87±4.30	21	1.52±2.60	44	2.75±3.74
15	41	3.80±4.29	17	3.53±3.14	58	3.72±3.96
16-18	46	4.20±5.34	37	3.86±5.52	83	4.05±5.39
TOTAL	992	1.38±2.86	873	1.00±2.23	1865	1.20±2.59

AGE ADJUSTED MEANS

GIRLS=1.34

BOYS=1.04

TABLE 6

DECAYED PERMANENT TOOTH SURFACES (DS) BY AGE AND  
SEX FOR ENTIRE POPULATION AGE 5 AND UP

AGE	<u>GIRLS</u>		<u>BOYS</u>		<u>ENTIRE SAMPLE</u>	
	NUMBER CHILDREN	SURFACES	NUMBER CHILDREN	SURFACES	NUMBER CHILDREN	SURFACES
5	47	0.02±0.15	28	0.32±1.70	75	0.13±1.04
6	114	0.12±0.58	107	0.05±0.21	221	0.09±0.44
7	124	0.16±0.59	112	0.15±0.59	236	0.16±0.59
8	118	0.15±0.46	94	0.21±0.87	212	0.18±0.67
9	139	0.31±1.65	165	0.28±0.73	304	0.29±1.24
10	29	0.45±1.09	44	0.25±0.69	73	0.33±0.87
11	46	0.52±1.67	31	0.13±0.34	77	0.36±1.32
12	142	0.54±1.82	110	0.55±1.91	252	0.54±1.85
13	123	0.57±1.43	107	0.51±1.21	230	0.54±1.33
14	23	0.30±0.56	21	0.76±1.30	44	0.52±1.00
15	41	0.56±1.05	17	0.94±1.48	58	0.67±1.19
16-18	46	0.63±1.40	37	0.73±1.17	83	0.67±1.30
TOTAL	992	0.34±1.24	873	0.33±1.08	1865	0.33±1.17

AGE ADJUSTED MEANS

GIRLS=0.34

BOYS=0.34

TABLE 7

MISSING PERMANENT TOOTH SURFACES (MS) BY AGE AND  
SEX FOR ENTIRE POPULATION AGE 5 AND UP

AGE	<u>GIRLS</u>		<u>BOYS</u>		<u>ENTIRE SAMPLE</u>	
	NUMBER CHILDREN	SURFACES	NUMBER CHILDREN	SURFACES	NUMBER CHILDREN	SURFACES
5	47	0.00±0.00	28	0.00±0.00	75	0.00±0.00
6	114	0.00±0.00	107	0.00±0.00	221	0.00±0.00
7	124	0.00±0.00	112	0.00±0.00	236	0.00±0.00
8	118	0.00±0.00	94	0.00±0.00	212	0.00±0.00
9	139	0.00±0.00	165	0.02±0.23	304	0.01±0.17
10	29	0.00±0.00	44	0.00±0.00	73	0.00±0.00
11	46	0.13±0.88	31	0.00±0.00	77	0.08±0.68
12	142	0.00±0.00	110	0.05±0.40	252	0.02±0.27
13	123	0.02±0.27	107	0.03±0.29	230	0.03±0.28
14	23	0.00±0.00	21	0.00±0.00	44	0.00±0.00
15	41	0.44±1.43	17	0.18±0.73	58	0.36±1.27
16-18	46	0.39±1.50	37	0.00±0.00	83	0.22±1.13
TOTAL	992	0.05±0.49	873	0.02±0.23	1865	0.03±0.39

AGE ADJUSTED MEANS

GIRLS=0.04

BOYS=0.02

TABLE 8

FILLED PERMANENT TOOTH SURFACES (FS) BY AGE AND  
SEX FOR ENTIRE POPULATION AGE 5 AND UP

AGE	GIRLS		BOYS		ENTIRE SAMPLE	
	NUMBER CHILDREN	SURFACES	NUMBER CHILDREN	SURFACES	NUMBER CHILDREN	SURFACES
5	47	0.00±0.00	28	0.04±0.19	75	0.01±0.12
6	114	0.11±0.60	107	0.02±0.19	221	0.06±0.45
7	124	0.11±0.77	112	0.30±1.46	236	0.20±1.15
8	118	0.35±1.16	94	0.27±0.88	212	0.31±1.04
9	139	0.50±1.51	165	0.49±1.33	304	0.50±1.41
10	29	0.66±1.72	44	0.64±1.59	73	0.64±1.63
11	46	0.89±1.54	31	0.71±1.79	77	0.82±1.64
12	142	1.73±2.66	110	0.77±1.37	252	1.31±2.24
13	123	1.63±2.84	107	1.11±2.01	230	1.39±2.50
14	23	3.57±4.33	21	0.76±2.19	44	2.23±3.72
15	41	2.80±3.82	17	2.41±2.92	58	2.69±3.56
16-18	46	3.17±4.59	37	3.14±5.55	83	3.16±5.01
TOTAL	992	0.99±2.39	873	0.65±1.91	1865	0.83±2.18

AGE ADJUSTED MEANS

GIRLS=0.96

BOYS=0.68

TABLE 9

SUMMARY OF DENTAL CARIES PREVALENCE FOR ENTIRE POPULATION SURVEYEDDECIDUOUS TEETH

<u>Age</u> <u>Range</u>	<u>Number</u> <u>Children</u>	<u>deft</u>	<u>defs</u>
≤5	629	0.89±1.89	1.41±3.85
6-8	701	1.50±2.13	2.94±5.27
9-12	475	1.25±1.81	2.31±3.79
13-15	46	0.33±0.76	0.54±1.38
≥16	3	0.67±0.58	0.67±0.58
TOTAL	1854	1.20±1.96	2.20±4.44

TABLE 9 (CONTINUED)

SUMMARY OF DENTAL CARIES PREVALENCE FOR ENTIRE POPULATION SURVEYEDPERMANENT DENTITION

<u>AGE RANGE</u>	<u>NUMBER CHILDREN</u>	<u>TOTAL TEETH</u>	<u>DMFT</u>	<u>SURFACES AT RISK</u>	<u>DMFS</u>	<u>FS</u>
≤5	84	2.87±1.70	0.12±0.70	12.54±8.15	0.18±1.08	0.01±0.11
6-8	669	8.60±3.40	0.25±0.71	37.44±14.44	0.33±1.08	0.19±0.94
9-12	706	18.90±6.74	0.90±1.48	83.88±31.91	1.25±2.39	0.84±1.83
13-15	332	26.72±2.53	1.76±2.20	120.38±12.06	2.37±3.26	1.73±2.93
≥16	83	27.45±1.07	2.73±3.07	123.99±6.08	4.05±5.39	3.16±5.01
TOTAL	1874	16.27±8.90	0.87±1.66	72.35±40.76	1.20±2.59	0.83±2.18



TABLE 9 (CONTINUED)

SUMMARY OF DENTAL CARIES PREVALENCE FOR ENTIRE POPULATION SURVEYEDPERMANENT DENTITION

<u>AGE RANGE</u>	<u>NUMBER CHILDREN</u>	<u>DS</u>	<u>MS</u>	<u>OCCLUSAL SURFACES</u>	<u>BU-LI SURFACES</u>	<u>MES-DIS SURFACES</u>
≤5	84	0.12±0.99	0.05±0.44	0.06±0.45	0.05±0.26	0.07±0.49
6-8	669	0.14±0.57	0.00±0.00	0.19±0.65	0.12±0.51	0.01±0.19
9-12	706	0.39±1.47	0.02±0.30	0.75±1.39	0.42±0.97	0.08±0.53
13-15	332	0.56±1.26	0.08±0.59	1.56±2.11	0.70±1.28	0.12±0.47
≥16	83	0.67±1.30	0.22±1.13	2.49±2.91	1.20±1.87	0.35±1.29
TOTAL	1874	0.33±1.17	0.03±0.40	0.74±1.56	0.38±0.99	0.08±0.50

TABLE 10

SUMMARY OF DENTAL CARIES PREVALENCE FOR ENTIRE POPULATION SURVEYEDPERMANENT DENTITIONCOUNTY 2

AGE RANGE	NUMBER CHILDREN	TOTAL TEETH	DMFT	SURFACES AT RISK	DMFS	FS
≤5	3	3.00±1.73	0.00±0.00	13.00±7.94	0.00±0.00	0.00±0.00
6-8	108	8.38±3.06	0.16±0.51	36.57±12.84	0.21±0.71	0.16±0.66
9-12	172	21.47±6.64	0.88±1.36	95.99±31.51	1.10±1.85	0.84±1.64
13-15	86	26.58±2.91	1.20±1.63	119.41±13.82	1.51±2.22	1.08±1.67
≥16	10	27.70±0.67	2.40±2.46	125.80±3.43	3.70±4.52	3.40±4.20
TOTAL	379	18.92±8.75	0.78±1.37	84.50±40.23	1.00±1.93	0.76±1.65

AGE RANGE	NUMBER CHILDREN	DS	MS	OCCLUSAL SURFACES	BU-LI SURFACES	MES-DIS SURFACES
≤5	3	0.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00
6-8	108	0.06±0.30	0.00±0.00	0.10±0.43	0.11±0.37	0.00±0.00
9-12	172	0.23±0.76	0.03±0.32	0.75±1.33	0.31±0.71	0.04±0.23
13-15	86	0.43±1.41	0.00±0.00	1.10±1.53	0.37±0.91	0.03±0.24
≥16	10	0.30±0.67	0.00±0.00	2.20±2.15	1.10±1.79	0.40±1.26
TOTAL	379	0.23±0.87	0.02±0.22	0.68±1.30	0.29±0.75	0.04±0.28

TABLE 10 (CONTINUED)

SUMMARY OF DENTAL CARIES PREVALENCE FOR ENTIRE POPULATION SURVEYEDPERMANENT DENTITIONCOUNTY 18

<u>AGE RANGE</u>	<u>NUMBER CHILDREN</u>	<u>TOTAL TEETH</u>	<u>DMFT</u>	<u>SURFACES AT RISK</u>	<u>DMFS</u>	<u>FS</u>
6-8	73	8.99±3.06	0.26±0.94	39.03±12.92	0.36±1.37	0.33±1.36
9-12	96	19.47±6.83	1.32±1.81	86.27±32.33	1.97±2.89	1.67±2.78
13-15	85	26.72±2.60	2.36±2.71	120.81±12.00	3.47±4.08	2.80±3.75
≥16	30	27.20±1.49	2.40±2.03	123.10±8.32	3.40±3.28	2.70±3.05
TOTAL	284	19.76±8.41	1.48±2.16	88.36±38.94	2.15±3.29	1.77±3.02

<u>AGE RANGE</u>	<u>NUMBER CHILDREN</u>	<u>DS</u>	<u>MS</u>	<u>OCCLUSAL SURFACES</u>	<u>BU-LI SURFACES</u>	<u>MES-DIS SURFACES</u>
6-8	73	0.03±0.16	0.00±0.00	0.25±0.91	0.10±0.53	0.01±0.12
9-12	96	0.30±0.87	0.00±0.00	1.18±1.73	0.72±1.32	0.07±0.33
13-15	85	0.56±1.29	0.11±0.56	2.18±2.56	1.14±1.68	0.15±0.45
≥16	30	0.70±1.29	0.00±0.00	2.20±1.90	1.13±1.74	0.07±0.25
TOTAL	284	0.35±0.99	0.03±0.31	1.35±2.04	0.73±1.40	0.08±0.33

TABLE 10 (CONTINUED)

SUMMARY OF DENTAL CARIES PREVALENCE FOR ENTIRE POPULATION SURVEYEDPERMANENT DENTITIONCOUNTY 21

<u>AGE RANGE</u>	<u>NUMBER CHILDREN</u>	<u>TOTAL TEETH</u>	<u>DMFT</u>	<u>SURFACES AT RISK</u>	<u>DMFS</u>	<u>FS</u>
13-15	29	27.52±0.91	2.79±2.78	123.24±4.88	3.69±4.30	3.24±4.01
≥16	13	27.69±0.75	3.38±5.22	125.00±4.83	6.00±10.26	4.54±9.67
TOTAL	42	27.57±0.86	2.98±3.65	123.79±4.88	4.40±6.68	3.64±6.23

<u>AGE RANGE</u>	<u>NUMBER CHILDREN</u>	<u>DS</u>	<u>MS</u>	<u>OCCLUSAL SURFACES</u>	<u>BU-LI SURFACES</u>	<u>MES-DIS SURFACES</u>
13-15	29	0.24±0.58	0.21±1.11	2.41±2.95	1.03±1.52	0.24±0.64
≥16	13	1.00±1.58	0.46±1.66	3.08±4.99	1.62±2.93	1.31±2.84
TOTAL	42	0.48±1.04	0.29±1.29	2.62±3.65	1.21±2.04	0.57±1.70

TABLE 10 (CONTINUED)

SUMMARY OF DENTAL CARIES PREVALENCE FOR ENTIRE POPULATION SURVEYEDPERMANENT DENTITIONCOUNTY 27

<u>AGE RANGE</u>	<u>NUMBER CHILDREN</u>	<u>TOTAL TEETH</u>	<u>DMFT</u>	<u>SURFACES AT RISK</u>	<u>DMFS</u>	<u>FS</u>
≤5	81	9.37±3.36	0.42±0.96	40.99±14.15	0.60±1.55	0.47±1.51
6-8	26	13.23±2.82	0.77±1.18	56.42±13.15	1.54±3.66	0.62±1.44
TOTAL	107	10.31±3.63	0.50±1.02	44.74±15.37	0.83±2.27	0.50±1.49

<u>AGE RANGE</u>	<u>NUMBER CHILDREN</u>	<u>DS</u>	<u>MS</u>	<u>OCCLUSAL SURFACES</u>	<u>BU-LI SURFACES</u>	<u>MES-DIS SURFACES</u>
≤5	81	0.14±0.52	0.00±0.00	0.33±0.84	0.26±0.86	0.01±0.11
6-8	26	0.92±3.53	0.00±0.00	0.58±1.06	0.69±1.52	0.27±1.37
TOTAL	107	0.33±1.81	0.00±0.00	0.39±0.90	0.36±1.07	0.07±0.68

TABLE 10 (CONTINUED)

SUMMARY OF DENTAL CARIES PREVALENCE FOR ENTIRE POPULATION SURVEYEDPERMANENT DENTITIONCOUNTY 28

<u>AGE RANGE</u>	<u>NUMBER CHILDREN</u>	<u>TOTAL TEETH</u>	<u>DMFT</u>	<u>SURFACES AT RISK</u>	<u>DMFS</u>	<u>FS</u>
6-8	5	13.20±3.56	0.40±0.89	57.80±16.32	0.40±0.89	0.20±0.45
9-12	76	16.75±6.30	0.72±1.31	74.20±29.74	1.01±2.36	0.45±1.37
13-15	9	26.33±1.66	1.11±1.36	118.67±8.73	1.11±1.36	0.67±1.12
TOTAL	90	17.51±6.61	0.74±1.29	77.73±31.09	0.99±2.22	0.46±1.31

<u>AGE RANGE</u>	<u>NUMBER CHILDREN</u>	<u>DS</u>	<u>MS</u>	<u>OCCLUSAL SURFACES</u>	<u>BU-LI SURFACES</u>	<u>MES-DIS SURFACES</u>
6-8	5	0.20±0.45	0.00±0.00	0.40±0.89	0.00±0.00	0.00±0.00
9-12	76	0.49±1.42	0.08±0.69	0.53±1.08	0.34±0.95	0.14±0.84
13-15	9	0.44±1.01	0.00±0.00	1.11±1.36	0.00±0.00	0.00±0.00
TOTAL	90	0.47±1.34	0.07±0.63	0.58±1.10	0.29±0.88	0.12±0.78

TABLE 10 (CONTINUED)

SUMMARY OF DENTAL CARIES PREVALENCE FOR ENTIRE POPULATION SURVEYEDPERMANENT DENTITIONCOUNTY 29

<u>AGE RANGE</u>	<u>NUMBER CHILDREN</u>	<u>TOTAL TEETH</u>	<u>DMFT</u>	<u>SURFACES AT RISK</u>	<u>DMFS</u>	<u>FS</u>
≤5	3	4.00±3.46	2.67±3.06	19.33±17.93	4.33±4.51	0.00±0.00
6-8	1	4.00±0.00	0.00±0.00	20.00±0.00	0.00±0.00	0.00±0.00
TOTAL	4	4.00±2.83	2.00±2.83	19.50±14.64	3.25±4.27	0.00±0.00

<u>AGE RANGE</u>	<u>NUMBER CHILDREN</u>	<u>DS</u>	<u>MS</u>	<u>OCCLUSAL SURFACES</u>	<u>BU-LI SURFACES</u>	<u>MES-DIS SURFACES</u>
≤5	3	3.00±5.20	1.33±2.31	1.33±2.31	1.00±1.00	2.00±2.00
6-8	1	0.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00
TOTAL	4	2.25±4.50	1.00±2.00	1.00±2.00	0.75±0.96	1.50±1.91

TABLE 10 (CONTINUED)

SUMMARY OF DENTAL CARIES PREVALENCE FOR ENTIRE POPULATION SURVEYEDPERMANENT DENTITIONCOUNTY 32

<u>AGE RANGE</u>	<u>NUMBER CHILDREN</u>	<u>TOTAL TEETH</u>	<u>DMFT</u>	<u>SURFACES AT RISK</u>	<u>DMFS</u>	<u>FS</u>
≤5	2	4.00±0.00	0.00±0.00	19.00±1.41	0.00±0.00	0.00±0.00
6-8	3	2.67±1.53	0.00±0.00	11.33±7.02	0.00±0.00	0.00±0.00
TOTAL	5	3.20±1.30	0.00±0.00	14.40±6.54	0.00±0.00	0.00±0.00

<u>AGE RANGE</u>	<u>NUMBER CHILDREN</u>	<u>DS</u>	<u>MS</u>	<u>OCCLUSAL SURFACES</u>	<u>BU-LI SURFACES</u>	<u>MES-DIS SURFACES</u>
≤5	2	0.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00
6-8	3	0.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00
TOTAL	5	0.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00



TABLE 10 (CONTINUED)

SUMMARY OF DENTAL CARIES PREVALENCE FOR ENTIRE POPULATION SURVEYEDPERMANENT DENTITIONCOUNTY 45

AGE RANGE	NUMBER CHILDREN	TOTAL TEETH	DMFT	SURFACES AT RISK	DMFS	FS
<5	48	2.75±1.52	0.00±0.00	11.83±7.31	0.00±0.00	0.00±0.00
6-8	90	10.12±2.71	0.33±0.78	43.96±11.29	0.50±1.48	0.21±1.16
9-12	106	18.79±7.01	0.75±1.61	83.40±33.12	1.06±2.89	0.24±0.86
13-15	24	26.54±2.28	1.25±1.62	120.25±11.86	1.46±2.08	0.67±1.95
TOTAL	268	13.70±8.58	0.52±1.26	60.63±39.27	0.72±2.14	0.22±1.04

AGE RANGE	NUMBER CHILDREN	DS	MS	OCCLUSAL SURFACES	BU-LI SURFACES	MES-DIS SURFACES
≤5	48	0.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00
6-8	90	0.29±0.97	0.00±0.00	0.32±0.78	0.11±0.55	0.07±0.47
9-12	106	0.82±2.66	0.00±0.00	0.58±1.46	0.35±0.98	0.13±0.77
13-15	24	0.79±1.28	0.00±0.00	1.04±1.55	0.42±0.83	0.00±0.00
TOTAL	268	0.49±1.83	0.00±0.00	0.43±1.15	0.21±0.75	0.07±0.56

TABLE 10 (CONTINUED)

SUMMARY OF DENTAL CARIES PREVALENCE FOR ENTIRE POPULATION SURVEYEDPERMANENT DENTITIONCOUNTY 49

<u>AGE RANGE</u>	<u>NUMBER CHILDREN</u>	<u>TOTAL TEETH</u>	<u>DMFT</u>	<u>SURFACES AT RISK</u>	<u>DMFS</u>	<u>FS</u>
<5	24	2.67±1.66	0.08±0.28	11.71±7.71	0.08±0.28	0.04±0.20
6-8	201	7.94±3.71	0.20±0.59	34.60±15.72	0.23±0.76	0.09±0.55
9-12	64	16.53±6.38	0.78±1.44	72.44±30.46	1.03±1.94	0.86±1.87
13-15	35	27.00±2.00	1.69±1.97	121.74±9.92	2.29±3.01	1.49±2.89
>16	18	27.50±0.79	3.28±3.51	123.83±4.88	4.56±5.18	3.50±4.79
TOTAL	342	12.16±8.46	0.62±1.49	53.69±38.36	0.81±2.12	0.56±1.87

<u>AGE RANGE</u>	<u>NUMBER CHILDREN</u>	<u>DS</u>	<u>MS</u>	<u>OCCLUSAL SURFACES</u>	<u>BU-LI SURFACES</u>	<u>MES-DIS SURFACES</u>
≤5	24	0.04±0.20	0.00±0.00	0.04±0.20	0.04±0.20	0.00±0.00
6-8	201	0.14±0.55	0.00±0.00	0.12±0.49	0.11±0.43	0.00±0.00
9-12	64	0.17±0.42	0.00±0.00	0.69±1.38	0.34±0.78	0.00±0.00
13-15	35	0.71±1.36	0.09±0.51	1.57±1.96	0.54±1.17	0.17±0.45
≥16	18	0.39±0.85	0.67±1.94	2.83±3.38	1.44±1.72	0.28±0.67
TOTAL	342	0.21±0.68	0.04±0.49	0.51±1.40	0.27±0.78	0.03±0.22

TABLE 10 (CONTINUED)

SUMMARY OF DENTAL CARIES PREVALENCE FOR ENTIRE POPULATION SURVEYEDPERMANENT DENTITIONCOUNTY 71

<u>AGE RANGE</u>	<u>NUMBER CHILDREN</u>	<u>TOTAL TEETH</u>	<u>DMFT</u>	<u>SURFACES AT RISK</u>	<u>DMFS</u>	<u>FS</u>
13-15	10	26.80±2.20	2.10±2.08	120.60±12.08	2.40±2.55	1.50±2.01
≥16	8	27.63±0.52	2.38±1.30	123.63±3.70	3.25±2.25	2.75±2.60
TOTAL	18	27.17±1.69	2.22±1.73	121.94±9.23	2.78±2.39	2.06±2.31

<u>AGE RANGE</u>	<u>NUMBER CHILDREN</u>	<u>DS</u>	<u>MS</u>	<u>OCCLUSAL SURFACES</u>	<u>BU-LI SURFACES</u>	<u>MES-DIS SURFACES</u>
13-15	10	0.90±1.29	0.00±0.00	1.70±1.77	0.70±1.16	0.00±0.00
≥16	8	0.50±1.07	0.00±0.00	2.38±1.30	0.88±1.13	0.00±0.00
TOTAL	18	0.72±1.18	0.00±0.00	2.00±1.57	0.78±1.11	0.00±0.00

TABLE 10 (CONTINUED)

SUMMARY OF DENTAL CARIES PREVALENCE FOR ENTIRE POPULATION SURVEYEDPERMANENT DENTITIONCOUNTY 72

<u>AGE RANGE</u>	<u>NUMBER CHILDREN</u>	<u>TOTAL TEETH</u>	<u>DMFT</u>	<u>SURFACES AT RISK</u>	<u>DMFS</u>	<u>FS</u>
6-8	4	11.75±1.26	0.75±0.96	50.75±5.38	1.75±2.36	1.75±2.36
9-12	85	17.93±5.75	0.96±1.39	79.59±27.02	1.33±2.18	0.99±1.84
TOTAL	89	17.65±5.77	0.96±1.37	78.29±27.09	1.35±2.18	1.02±1.85

<u>AGE RANGE</u>	<u>NUMBER CHILDREN</u>	<u>DS</u>	<u>MS</u>	<u>OCCLUSAL SURFACES</u>	<u>BU-LI SURFACES</u>	<u>MES-DIS SURFACES</u>
6-8	4	0.00±0.00	0.00±0.00	0.75±0.96	1.00±1.41	0.00±0.00
9-12	85	0.31±0.80	0.04±0.33	0.78±1.28	0.48±1.00	0.07±0.34
TOTAL	89	0.29±0.79	0.03±0.32	0.78±1.26	0.51±1.01	0.07±0.33

TABLE 10 (CONTINUED)

SUMMARY OF DENTAL CARIES PREVALENCE FOR ENTIRE POPULATION SURVEYEDPERMANENT DENTITIONCOUNTY 77

<u>AGE RANGE</u>	<u>NUMBER CHILDREN</u>	<u>TOTAL TEETH</u>	<u>DMFT</u>	<u>SURFACES AT RISK</u>	<u>DMFS</u>	<u>FS</u>
9-12	26	24.62±3.90	1.08±1.55	111.04±18.52	1.46±2.14	1.15±1.78
13-15	1	27.00±0.00	0.00±0.00	123.00±0.00	0.00±0.00	0.00±0.00
TOTAL	27	24.70±3.85	1.04±1.53	111.48±18.31	1.41±2.12	1.11±1.76

<u>AGE RANGE</u>	<u>NUMBER CHILDREN</u>	<u>DS</u>	<u>MS</u>	<u>OCCLUSAL SURFACES</u>	<u>BU-LI SURFACES</u>	<u>MES-DIS SURFACES</u>
9-12	26	0.31±0.74	0.00±0.00	0.96±1.46	0.46±0.86	0.04±0.20
13-15	1	0.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00
TOTAL	27	0.30±0.72	0.00±0.00	0.93±1.44	0.44±0.85	0.04±0.19

TABLE 10 (CONTINUED)

SUMMARY OF DENTAL CARIES PREVALENCE FOR ENTIRE POPULATION SURVEYEDPERMANENT DENTITIONCOUNTY 82

<u>AGE RANGE</u>	<u>NUMBER CHILDREN</u>	<u>TOTAL TEETH</u>	<u>DMFT</u>	<u>SURFACES AT RISK</u>	<u>DMFS</u>	<u>FS</u>
9-12	2	25.00±4.24	0.00±0.00	114.00±19.80	0.00±0.00	0.00±0.00
13-15	21	26.62±3.61	0.76±1.04	119.33±17.19	0.86±1.24	0.29±0.56
≥16	2	27.00±1.41	1.00±1.41	123.00±7.07	1.00±1.41	0.00±0.00
TOTAL	25	26.52±3.45	0.72±1.02	119.20±16.38	0.80±1.19	0.24±0.52

<u>AGE RANGE</u>	<u>NUMBER CHILDREN</u>	<u>DS</u>	<u>MS</u>	<u>OCCLUSAL SURFACES</u>	<u>BU-LI SURFACES</u>	<u>MES-DIS SURFACES</u>
9-12	2	0.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00
13-15	21	0.57±1.16	0.00±0.00	0.52±0.93	0.29±0.56	0.05±0.22
≥16	2	1.00±1.41	0.00±0.00	1.00±1.41	0.00±0.00	0.00±0.00
TOTAL	25	0.56±1.12	0.00±0.00	0.52±0.92	0.24±0.52	0.04±0.20

TABLE 10 (CONTINUED)

SUMMARY OF DENTAL CARIES PREVALENCE FOR ENTIRE POPULATION SURVEYEDPERMANENT DENTITIONCOUNTY 84

AGE RANGE	NUMBER CHILDREN	TOTAL TEETH	DMFT	SURFACES AT RISK	DMFS	FS
≤5	4	4.00±2.83	0.00±0.00	17.25±13.00	0.00±0.00	0.00±0.00
6-8	103	7.78±3.12	0.20±0.60	33.71±13.39	0.22±0.67	0.03±0.30
9-12	53	17.00±6.38	0.81±1.36	74.85±29.93	1.11±1.97	0.83±1.86
13-15	32	26.34±2.55	1.94±2.15	118.91±11.68	2.78±3.38	1.69±2.88
≥16	2	27.50±0.71	3.50±4.95	125.50±3.54	4.50±6.36	1.50±2.12
TOTAL	194	13.48±8.33	0.69±1.43	59.61±38.05	0.93±2.08	0.54±1.65
OVERALL TOTAL	1874	16.27±8.90	0.87±1.66	72.35±40.76	1.20±2.59	0.83±2.18

AGE RANGE	NUMBER CHILDREN	DS	MS	OCCLUSAL SURFACES	BU-LI SURFACES	MES-DIS SURFACES
≤5	4	0.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00
6-8	103	0.19±0.61	0.00±0.00	0.16±0.54	0.05±0.26	0.02±0.14
9-12	53	0.28±0.72	0.00±0.00	0.74±1.36	0.28±0.74	0.09±0.30
13-15	32	0.81±1.26	0.28±1.17	1.56±2.08	0.94±1.27	0.28±0.96
≥16	2	3.00±4.24	0.00±0.00	3.50±4.95	0.50±0.71	0.50±0.71
TOTAL	194	0.35±0.90	0.05±0.48	0.58±1.35	0.26±0.74	0.09±0.44
OVERALL TOTAL	1874	0.33±1.17	0.03±0.40	0.74±1.56	0.38±0.99	0.08±0.50

TABLE 10 (CONTINUED)

SUMMARY OF DENTAL CARIES PREVALENCE FOR ENTIRE POPULATION SURVEYEDDECIDUOUS TEETHCOUNTY 2

<u>AGE</u> <u>RANGE</u>	<u>NUMBER</u> <u>CHILDREN</u>	<u>deft</u>	<u>defs</u>
≤5	16	1.75±3.00	4.44±9.78
6-8	109	0.98±1.76	1.68±3.40
9-12	86	1.07±1.78	1.81±3.26
13-15	14	0.07±0.27	0.07±0.27
≥16	1	1.00±0.00	1.00±0.00
TOTAL	226	1.01±1.84	1.82±4.08



TABLE 10 (CONTINUED)

SUMMARY OF DENTAL CARIES PREVALENCE FOR ENTIRE POPULATION SURVEYEDDECIDUOUS TEETHCOUNTY 18

<u>AGE</u> <u>RANGE</u>	<u>NUMBER</u> <u>CHILDREN</u>	<u>deft</u>	<u>defs</u>
6-8	74	1.80±2.43	4.05±6.80
9-12	59	1.31±1.87	2.85±4.62
13-15	12	0.33±0.78	0.67±1.56
≥16	1	1.00±0.00	1.00±0.00
TOTAL	146	1.47±2.14	3.27±5.74

TABLE 10 (CONTINUED)

SUMMARY OF DENTAL CARIES PREVALENCE FOR ENTIRE POPULATION SURVEYEDDECIDUOUS TEETHCOUNTY 27

<u>AGE</u> <u>RANGE</u>	<u>NUMBER</u> <u>CHILDREN</u>	<u>deft</u>	<u>defs</u>
6-8	82	2.30±2.59	4.77±7.00
9-12	25	2.60±2.38	5.28±5.33
TOTAL	107	2.37±2.53	4.89±6.63

TABLE 10 (CONTINUED)

SUMMARY OF DENTAL CARIES PREVALENCE FOR ENTIRE POPULATION SURVEYEDDECIDUOUS TEETHCOUNTY 28

<u>AGE</u> <u>RANGE</u>	<u>NUMBER</u> <u>CHILDREN</u>	<u>deft</u>	<u>defs</u>
6-8	5	1.20±1.30	1.60±1.52
9-12	60	1.30±1.50	2.23±2.92
13-15	4	0.25±0.50	0.25±0.50
TOTAL	69	1.23±1.46	2.07±2.79

TABLE 10 (CONTINUED)

SUMMARY OF DENTAL CARIES PREVALENCE FOR ENTIRE POPULATION SURVEYEDDECIDUOUS TEETHCOUNTY 29

<u>AGE</u> <u>RANGE</u>	<u>NUMBER</u> <u>CHILDREN</u>	<u>deft</u>	<u>defs</u>
≤5	62	0.23±1.19	0.27±1.56
6-8	1	5.00±0.00	7.00±0.00
TOTAL	63	0.30±1.33	0.38±1.76

TABLE 10 (CONTINUED)

SUMMARY OF DENTAL CARIES PREVALENCE FOR ENTIRE POPULATION SURVEYEDDECIDUOUS TEETHCOUNTY 32

<u>AGE</u> <u>RANGE</u>	<u>NUMBER</u> <u>CHILDREN</u>	<u>deft</u>	<u>defs</u>
$\leq 5$	36	0.19±0.67	0.19±0.67
6-8	3	0.33±0.58	0.33±0.58
TOTAL	39	0.21±0.66	0.21±0.66

TABLE 10 (CONTINUED)

SUMMARY OF DENTAL CARIES PREVALENCE FOR ENTIRE POPULATION SURVEYEDDECIDUOUS TEETHCOUNTY 45

<u>AGE</u> <u>RANGE</u>	<u>NUMBER</u> <u>CHILDREN</u>	<u>deft</u>	<u>defs</u>
≤5	240	1.33±2.24	2.11±4.38
6-8	91	1.78±2.25	3.40±5.53
9-12	71	1.44±2.13	2.70±4.65
13-15	4	0.00±0.00	0.00±0.00
TOTAL	406	1.44±2.22	2.48±4.71

TABLE 10 (CONTINUED)

SUMMARY OF DENTAL CARIES PREVALENCE FOR ENTIRE POPULATION SURVEYEDDECIDUOUS TEETHCOUNTY 49

<u>AGE</u> <u>RANGE</u>	<u>NUMBER</u> <u>CHILDREN</u>	<u>deft</u>	<u>defs</u>
≤5	264	0.66±1.54	0.93±2.95
6-8	218	1.19±1.70	2.11±3.88
9-12	55	1.05±1.63	2.00±3.20
13-15	4	0.00±0.00	0.00±0.00
≥16	1	0.00±0.00	0.00±0.00
TOTAL	542	0.90±1.63	1.50±3.41

TABLE 10 (CONTINUED)

SUMMARY OF DENTAL CARIES PREVALENCE FOR ENTIRE POPULATION SURVEYEDDECIDUOUS TEETHCOUNTY 72

<u>AGE</u> <u>RANGE</u>	<u>NUMBER</u> <u>CHILDREN</u>	<u>deft</u>	<u>defs</u>
6-8	4	2.00±2.45	3.75±5.19
9-12	67	1.01±1.61	1.72±3.17
TOTAL	71	1.07±1.66	1.83±3.29



TABLE 10 (CONTINUED)

SUMMARY OF DENTAL CARIES PREVALENCE FOR ENTIRE POPULATION SURVEYEDDECIDUOUS TEETHCOUNTY 77

<u>AGE</u> <u>RANGE</u>	<u>NUMBER</u> <u>CHILDREN</u>	<u>deft</u>	<u>defs</u>
9-12	10	0.50±0.71	0.80±1.14
TOTAL	10	0.50±0.71	0.80±1.14

TABLE 10 (CONTINUED)

SUMMARY OF DENTAL CARIES PREVALENCE FOR ENTIRE POPULATION SURVEYEDDECIDUOUS TEETHCOUNTY 82

<u>AGE</u> <u>RANGE</u>	<u>NUMBER</u> <u>CHILDREN</u>	<u>d<sub>e</sub>f<sub>t</sub></u>	<u>d<sub>e</sub>f<sub>s</sub></u>
9-12	1	1.00±0.00	2.00±0.00
13-15	2	1.00±1.41	1.50±2.12
TOTAL	3	1.00±1.00	1.67±1.53

TABLE 10 (CONTINUED)

SUMMARY OF DENTAL CARIES PREVALENCE FOR ENTIRE POPULATION SURVEYEDDECIDUOUS TEETHCOUNTY 84

<u>AGE</u> <u>RANGE</u>	<u>NUMBER</u> <u>CHILDREN</u>	<u>deft</u>	<u>defs</u>
≤5	11	1.82±1.99	3.82±5.33
6-8	114	1.57±2.34	3.38±5.93
9-12	41	1.12±1.58	1.95±3.19
13-15	6	1.17±1.33	2.00±2.53
TOTAL	172	1.47±2.13	3.02±5.28

NOTE: OVERALL  
TOTAL 1854 1.20±1.96 2.20±4.44

TABLE 11

CARIES VS. NO CARIES

<u>AGE</u>	<u>NUMBER OF CHILDREN WITH CARIES</u>	<u>NUMBER OF CHILDREN WITH NO CARIES</u>
6	64 (25.70%)	185 (74.30%)
7	57 (23.75%)	183 (76.25%)
8	53 (25.00%)	159 (75.00%)
9	92 (30.26%)	212 (69.74%)
10	21 (28.77%)	52 (71.23%)
11	18 (23.38%)	59 (76.62%)
12	61 (24.21%)	191 (75.79%)
13	55 (23.91%)	175 (76.09%)
14	14 (31.82%)	30 (68.18%)
15	18 (31.03%)	40 (68.97%)
16	19 (27.14%)	51 (72.86%)
TOTAL	472 (26.09%)	1337 (73.91%)

TABLE 12

SEALED VS. NOT SEALED BY AGE AND RACE

AGE	RACE	NUMBER OF CHILDREN	
		WITH SEALED SURFACES OR TEETH	WITH NO SEALED SURFACES OR TEETH
0.6	WHITE	.	1
0.7	WHITE	.	1
0.8	WHITE	.	1
1	WHITE	.	17
2	WHITE	.	41
3	WHITE	1	44
4	WHITE	.	47
5	WHITE	1	68
6	WHITE	15	155
7	WHITE	18	154
8	WHITE	28	94
9	WHITE	46	168
10	WHITE	10	38
11	WHITE	5	43
12	WHITE	45	144
13	WHITE	53	126
14	WHITE	13	23
15	WHITE	17	28
16	WHITE	15	34
17	WHITE	1	5
18	WHITE	1	2
TOTAL	WHITE	269	1234

TABLE 12 (CONTINUED)

SEALED VS. NOT SEALED BY AGE AND RACE

AGE	RACE	NUMBER OF CHILDREN WITH SEALED SURFACES OR TEETH	NUMBER OF CHILDREN WITH NO SEALED SURFACES OR TEETH
2	HISPANIC	.	1
3	HISPANIC	.	2
4	HISPANIC	.	6
5	HISPANIC	.	6
6	HISPANIC	.	5
7	HISPANIC	1	12
8	HISPANIC	2	14
9	HISPANIC	7	21
10	HISPANIC	.	8
11	HISPANIC	2	6
12	HISPANIC	2	19
13	HISPANIC	.	12
15	HISPANIC	1	.
2	ASIAN	.	1
4	ASIAN	.	1
5	ASIAN	1	3
7	ASIAN	.	2
8	ASIAN	1	2
9	ASIAN	.	3
10	ASIAN	.	1
13	ASIAN	.	1
16	ASIAN	.	1
7	OTHER	1	1
8	OTHER	.	1
TOTAL	HISPANIC	15	112
TOTAL	ASIAN	2	15
TOTAL	OTHER	1	2

TABLE 12 (CONTINUED)

SEALED VS. NOT SEALED BY AGE AND RACE

AGE	RACE	NUMBER OF CHILDREN	
		WITH SEALED SURFACES OR TEETH	WITH NO SEALED SURFACES OR TEETH
1	BLACK	.	1
2	BLACK	.	25
3	BLACK	.	51
4	BLACK	.	151
5	BLACK	1	160
6	BLACK	4	70
7	BLACK	7	44
8	BLACK	9	61
9	BLACK	13	46
10	BLACK	4	12
11	BLACK	1	20
12	BLACK	8	34
13	BLACK	13	25
14	BLACK	4	4
15	BLACK	4	8
16	BLACK	5	15
17	BLACK	.	5
18	BLACK	.	1
TOTAL	BLACK	73	732

NOTE: OVERALL TOTAL FOR COMBINED RACES WAS 360 SEALED/2095 NO SEAL.

TABLE 13

deflt BY AGE AND RACE FOR ENTIRE POPULATION AGE 5 AND UP

AGE	BLACK		HISPANIC		WHITE		ASIAN		OTHER		ENTIRE SAMPLE	
	NUMBER CHILDREN	deflt	NUMBER CHILDREN	deflt	NUMBER CHILDREN	deflt	NUMBER CHILDREN	deflt	NUMBER CHILDREN	deflt	NUMBER CHILDREN	deflt
5	161	1.43±2.27	6	1.00±2.00	68	0.91±1.71	4	4.75±4.43			239	1.33±2.21
6	74	1.34±1.83	5	2.80±3.11	170	1.22±1.98					249	1.29±1.96
7	51	1.80±2.21	13	1.92±2.14	172	1.60±2.34	2	5.00±1.41	2	2.00±2.83	240	1.70±2.31
8	70	1.80±2.22	16	2.13±2.45	122	1.29±1.97	3	1.33±2.31	1	1.00±0.00	212	1.52±2.10
9	56	1.54±1.97	28	2.43±2.62	213	1.38±1.94	3	2.00±2.00			300	1.52±2.03
10	13	0.54±1.13	7	0.86±1.07	47	1.13±1.39					67	0.99±1.32
11	8	0.50±1.07	3	1.67±2.89	28	0.50±1.00					39	0.59±1.21
12	8	0.25±0.46	6	0.83±2.04	55	0.75±0.99					69	0.70±1.06
13	4	0.00±0.00			36	0.31±0.75					40	0.28±0.72
14					5	0.80±1.10					5	0.80±1.10
15					1	0.00±0.00					1	0.00±0.00
16-18					3	0.67±0.58					3	0.67±0.58
TOTAL	445	1.45±2.09	84	1.94±2.37	920	1.22±1.91	12	3.25±3.17	3	1.67±2.08	1464	1.35±2.02

AGE ADJUSTED MEANS (AGE 5-13) BLACK=1.39 WHITE=1.20



TABLE 14

defs BY AGE AND RACE FOR ENTIRE POPULATION AGE 5 AND UP

AGE	BLACK		HISPANIC		WHITE		ASIAN		OTHER		ENTIRE SAMPLE	
	NUMBER CHILDREN	defs	NUMBER CHILDREN	defs	NUMBER CHILDREN	defs	NUMBER CHILDREN	defs	NUMBER CHILDREN	defs	NUMBER CHILDREN	defs
5	161	2.37±4.74	6	1.17±2.04	68	1.59±3.84	4	12.00±15.58			239	2.28±4.92
6	74	2.27±3.86	5	7.80±8.67	170	2.44±4.93					249	2.50±4.77
7	51	3.41±5.39	13	3.62±5.33	172	3.36±6.14	2	8.00±2.83	2	2.50±3.54	240	3.42±5.90
8	70	3.47±5.69	16	3.81±4.21	122	2.50±4.82	3	2.00±3.46	1	1.00±0.00	212	2.91±5.05
9	56	2.82±3.98	28	4.54±5.79	213	2.70±4.25	3	3.67±3.51			300	2.91±4.37
10	13	1.00±2.08	7	1.43±2.15	47	1.83±2.58					67	1.63±2.44
11	8	0.63±1.19	3	3.33±5.77	28	0.71±1.41					39	0.90±1.98
12	8	0.25±0.46	6	1.00±2.45	55	1.33±1.93					69	1.17±1.88
13	4	0.00±0.00			36	0.50±1.36					40	0.45±1.30
14					5	1.40±1.95					5	1.40±1.95
15					1	0.00±0.00					1	0.00±0.00
16-18					3	0.67±0.58					3	0.67±0.58
TOTAL	445	2.57±4.64	84	3.65±5.13	920	2.38±4.59	12	6.75±9.51	3	2.00±2.65	1464	2.55±4.71

AGE

ADJUSTED

MEANS

(AGE 5-13)

BLACK=2.50

WHITE=2.33

TABLE 15

DMFT BY AGE AND RACE FOR ENTIRE POPULATION AGE 5 AND UP

AGE	BLACK			HISPANIC			WHITE			ASIAN			OTHER			ENTIRE SAMPLE		
	NUMBER CHILDREN	DMFT	NUMBER CHILDREN	DMFT	NUMBER CHILDREN	DMFT	NUMBER CHILDREN	DMFT	NUMBER CHILDREN	DMFT	NUMBER CHILDREN	DMFT	NUMBER CHILDREN	DMFT	NUMBER CHILDREN	DMFT	NUMBER CHILDREN	DMFT
5	52	0.02±0.14	1	0.00±0.00	22	0.32±1.29	2	0.00±0.00	0	0.00±0.00	0	0.00±0.00	0	0.00±0.00	75	0.11±0.71		
6	73	0.07±0.35	5	0.40±0.89	143	0.15±0.57	2	0.00±0.00	2	0.00±0.00	2	0.00±0.00	2	0.00±0.00	221	0.13±0.52		
7	50	0.30±0.93	13	0.46±0.78	169	0.23±0.71	3	0.00±0.00	3	0.00±0.00	1	3.00±0.00	3	0.00±0.00	236	0.25±0.76		
8	70	0.41±0.83	16	0.56±0.96	122	0.31±0.76	3	0.00±0.00	3	0.00±0.00	1	3.00±0.00	3	0.00±0.00	212	0.37±0.81		
9	59	0.47±1.02	28	0.54±0.92	214	0.57±0.99	3	0.00±0.00	3	2.00±2.65	3	2.00±2.65	3	2.00±2.65	304	0.56±1.02		
10	16	0.44±1.26	8	1.00±1.20	48	0.69±1.15	1	2.00±0.00	1	2.00±0.00	1	2.00±0.00	1	2.00±0.00	73	0.68±1.18		
11	21	0.29±0.46	8	1.00±1.51	48	1.08±1.61	1	0.00±0.00	1	0.00±0.00	1	0.00±0.00	1	0.00±0.00	77	0.86±1.41		
12	42	1.40±2.06	21	1.67±2.37	189	1.35±1.76	1	2.00±0.00	1	2.00±0.00	1	2.00±0.00	1	2.00±0.00	252	1.39±1.87		
13	38	1.47±2.19	12	1.58±1.68	179	1.46±1.94	1	2.00±0.00	1	2.00±0.00	1	2.00±0.00	1	2.00±0.00	230	1.47±1.96		
14	8	1.00±1.31	1	0.00±0.00	36	2.39±2.87	1	0.00±0.00	1	0.00±0.00	1	0.00±0.00	1	0.00±0.00	44	2.14±2.70		
15	12	1.92±2.19	1	0.00±0.00	45	2.82±2.48	1	0.00±0.00	1	0.00±0.00	1	0.00±0.00	1	0.00±0.00	58	2.59±2.44		
16-18 25	25	2.52±2.99	1	0.00±0.00	57	2.77±3.12	1	0.00±0.00	1	0.00±0.00	1	0.00±0.00	1	0.00±0.00	83	2.73±3.07		
TOTAL	466	0.64±1.49	113	0.90±1.48	1272	0.94±1.72	11	1.45±2.16	3	1.00±1.73	1865	0.87±1.66						

AGE ADJUSTED MEANS (AGE 5-13) BLACK=0.63 HISPANIC=0.84 WHITE=0.69

TABLE 16

DMFS BY AGE AND RACE FOR ENTIRE POPULATION AGE 5 AND UP

AGE	BLACK		HISPANIC		WHITE		ASIAN		OTHER		ENTIRE SAMPLE	
	NUMBER CHILDREN	DMFS	NUMBER CHILDREN	DMFS	NUMBER CHILDREN	DMFS	NUMBER CHILDREN	DMFS	NUMBER CHILDREN	DMFS	NUMBER CHILDREN	DMFS
5	52	0.02±0.14	1	0.00±0.00	22	0.45±1.92					75	0.15±1.05
6	73	0.07±0.35	5	0.80±1.79	143	0.17±0.66					221	0.15±0.63
7	50	0.44±1.55	13	0.54±0.97	169	0.33±1.21	2	0.00±0.00	2	0.00±0.00	236	0.36±1.27
8	70	0.57±1.37	16	0.56±0.96	122	0.43±1.13	3	0.00±0.00	1	3.00±0.00	212	0.49±1.20
9	59	0.58±1.38	28	0.68±1.22	214	0.84±1.93	3	3.33±4.93			304	0.80±1.83
10	16	0.56±1.75	8	1.50±1.85	48	0.96±1.82	1	4.00±0.00			73	0.97±1.83
11	21	0.29±0.46	8	1.88±2.95	48	1.58±3.04					77	1.26±2.64
12	42	2.02±3.65	21	2.48±4.37	189	1.78±2.47	1	4.00±0.00			252	1.88±2.88
13	38	1.97±3.06	12	2.08±2.50	179	1.94±2.84					230	1.96±2.85
14	8	1.25±1.75			36	3.08±4.00					44	2.75±3.74
15	12	3.00±3.72	1	0.00±0.00	45	4.00±4.05					58	3.72±3.96
16-18	25	3.48±4.56			57	4.21±5.75	1	9.00±0.00			83	4.05±5.39
TOTAL	466	0.88±2.28	113	1.27±2.47	1272	1.30±2.69	11	2.45±3.59	3	1.00±1.73	1865	1.20±2.59

AGE ADJUSTED MEANS

(AGE 5-13) BLACK=0.86

HISPANIC=1.18

WHITE=0.94

TABLE 17

SUMMARY OF DENTAL CARIES PREVALENCE BY RACE  
AND AGE GROUP

DECIDUOUS TEETH

<u>BLACK</u>			
<u>AGE RANGE</u>	<u>NUMBER CHILDREN</u>	<u>deft</u>	<u>defs</u>
≤5	389	1.16±2.10	1.80±4.15
6-8	195	1.63±2.08	3.00±4.99
9-12	85	1.16±1.77	2.09±3.49
13-15	4	0.00±0.00	0.00±0.00
TOTAL	673	1.29±2.06	2.18±4.35

<u>WHITE</u>			
<u>AGE RANGE</u>	<u>NUMBER CHILDREN</u>	<u>deft</u>	<u>defs</u>
≤5	219	0.36±1.10	0.57±2.28
6-8	464	1.38±2.12	2.80±5.39
9-12	343	1.17±1.71	2.20±3.65
13-15	42	0.36±0.79	0.60±1.43
≥16	3	0.67±0.58	0.67±0.58
TOTAL	1071	1.06±1.82	2.06±4.33

<u>HISPANIC</u>			
<u>AGE RANGE</u>	<u>NUMBER CHILDREN</u>	<u>deft</u>	<u>defs</u>
≤5	15	0.87±1.92	1.13±2.56
6-8	34	2.15±2.38	4.32±5.45
9-12	44	1.91±2.42	3.48±5.12
TOTAL	93	1.83±2.35	3.41±5.00

<u>OTHER</u>			
<u>AGE RANGE</u>	<u>NUMBER CHILDREN</u>	<u>deft</u>	<u>defs</u>
6-8	3	1.67±2.08	2.00±2.65

<u>ASIAN</u>			
<u>AGE RANGE</u>	<u>NUMBER CHILDREN</u>	<u>deft</u>	<u>defs</u>
≤5	6	3.17±4.22	8.00±13.56
6-8	5	2.80±2.68	4.40± 4.34
9-12	3	2.00±2.00	3.67± 3.51
TOTAL	14	2.79±3.14	5.79± 9.08

NOTE: OVERALL TOTALS WERE 1854 SUBJECTS, deft=1.20±1.97, and defs=2.21±4.48

TABLE 17  
(CONT.)

SUMMARY OF DENTAL CARIES PREVALENCE BY RACE  
AND AGE GROUP

PERMANENT DENTITION

AGE RANGE	NUMBER CHILDREN	TOTAL TEETH	DMFT	SURFACES AT RISK				BLACK				MS	OCCLUSAL SURFACES	BU-LI SURFACES	MES-DIS SURFACES
				DMFS	FS	DS	MS	DMFS	FS	DS	MS				
≤5	59	2.88±1.62	0.02±0.13	12.44±7.72	0.02±0.13	0.00±0.00	0.02±0.13	0.00±0.00	0.02±0.13	0.00±0.00	0.02±0.13	0.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00
6-8	193	9.38±3.52	0.25±0.73	40.75±15.02	0.35±1.18	0.20±1.00	0.15±0.66	0.00±0.00	0.21±0.66	0.00±0.00	0.21±0.66	0.13±0.59	0.13±0.59	0.01±0.14	0.01±0.14
9-12	138	19.91±6.88	0.72±1.46	88.64±32.52	0.97±2.38	0.54±1.56	0.41±1.78	0.02±0.26	0.59±1.40	0.02±0.26	0.59±1.40	0.30±0.87	0.30±0.87	0.07±0.54	0.07±0.54
3-15	58	27.12±11.68	1.50±2.08	121.57±48.65	2.09±3.07	1.55±2.92	0.48±1.14	0.05±0.39	1.43±2.00	0.05±0.39	1.43±2.00	0.55±1.19	0.55±1.19	0.10±0.36	0.10±0.36
≥16	25	27.64±0.70	2.52±2.99	125.20±4.46	3.48±4.56	2.64±4.06	0.36±0.81	0.48±1.66	2.36±3.03	0.48±1.66	2.36±3.03	0.96±1.43	0.96±1.43	0.16±0.55	0.16±0.55
TOTAL	473	14.78±9.18	0.63±1.48	65.56±41.84	0.87±2.27	0.57±1.85	0.26±1.15	0.04±0.44	0.56±1.43	0.04±0.44	0.56±1.43	0.26±0.83	0.26±0.83	0.05±0.35	0.05±0.35
HISPANIC															
≤5	1	1.00±0.00	0.00±0.00	5.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00
6-8	34	9.15±2.89	0.50±0.86	39.82±12.22	0.59±1.08	0.24±0.78	0.35±0.85	0.00±0.00	0.47±0.86	0.00±0.00	0.47±0.86	0.12±0.41	0.12±0.41	0.00±0.00	0.00±0.00
9-12	65	18.48±6.75	1.02±1.66	81.75±31.98	1.51±2.92	0.65±1.71	0.86±2.40	0.00±0.00	0.85±1.58	0.00±0.00	0.85±1.58	0.55±1.09	0.55±1.09	0.11±0.64	0.11±0.64
3-15	13	27.46±1.05	1.46±1.66	124.62±5.45	1.92±2.47	1.23±2.55	0.69±1.18	0.00±0.00	1.23±1.54	0.00±0.00	1.23±1.54	0.69±1.03	0.69±1.03	0.00±0.00	0.00±0.00
TOTAL	113	16.55±7.96	0.90±1.48	73.39±36.89	1.27±2.47	0.58±1.62	0.68±1.93	0.00±0.00	0.77±1.40	0.00±0.00	0.77±1.40	0.43±0.94	0.43±0.94	0.00±0.00	0.00±0.00
WHITE															
≤5	24	2.92±1.91	0.38±1.28	13.08±9.29	0.58±1.98	0.04±0.20	0.38±1.84	0.17±0.82	0.17±0.82	0.17±0.82	0.17±0.82	0.17±0.48	0.17±0.48	0.25±0.90	0.25±0.90
6-8	434	8.21±3.35	0.23±0.68	35.79±14.17	0.30±1.04	0.19±0.94	0.12±0.49	0.00±0.00	0.17±0.62	0.00±0.00	0.17±0.62	0.12±0.47	0.12±0.47	0.02±0.21	0.02±0.21
9-12	499	18.69±6.70	0.93±1.45	82.91±31.70	1.28±2.30	0.92±1.87	0.33±1.18	0.02±0.33	0.78±1.35	0.02±0.33	0.78±1.35	0.42±0.97	0.42±0.97	0.08±0.52	0.08±0.52
3-15	260	26.59±2.73	1.83±2.25	119.88±12.90	2.45±3.34	1.80±2.96	0.56±1.28	0.09±0.64	1.60±2.17	0.09±0.64	1.60±2.17	0.73±1.32	0.73±1.32	0.12±0.50	0.12±0.50
≥16	57	27.35±1.20	2.77±3.12	123.39±6.66	4.21±5.75	3.28±5.37	0.82±1.45	0.11±0.79	2.51±2.89	0.11±0.79	2.51±2.89	1.26±2.02	1.26±2.02	0.44±1.51	0.44±1.51
TOTAL	1274	16.82±8.82	0.94±1.72	74.90±40.45	1.30±2.69	0.94±2.31	0.33±1.07	0.04±0.41	0.80±1.61	0.04±0.41	0.80±1.61	0.41±1.03	0.41±1.03	0.09±0.54	0.09±0.54
OTHER															
6-8	3	8.33±3.21	1.00±1.73	36.00±14.42	1.00±1.73	0.00±0.00	1.00±1.73	0.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00	1.00±1.73	1.00±1.73	0.00±0.00	0.00±0.00
ASIAN															
6-8	5	8.60±1.67	0.00±0.00	37.60±7.13	0.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00
9-12	4	17.00±7.07	2.00±2.16	76.00±32.81	3.50±4.04	3.50±4.04	0.00±0.00	0.00±0.00	2.00±2.16	0.00±0.00	2.00±2.16	1.25±1.89	1.25±1.89	0.25±0.50	0.25±0.50
3-15	1	28.00±0.00	2.00±0.00	128.00±0.00	4.00±0.00	0.00±0.00	4.00±0.00	0.00±0.00	4.00±0.00	0.00±0.00	4.00±0.00	1.00±0.00	1.00±0.00	1.00±0.00	1.00±0.00
≥16	1	28.00±0.00	6.00±0.00	128.00±0.00	9.00±0.00	9.00±0.00	0.00±0.00	0.00±0.00	5.00±0.00	0.00±0.00	5.00±0.00	4.00±0.00	4.00±0.00	0.00±0.00	0.00±0.00
TOTAL	11	15.18±8.48	1.45±2.16	68.00±39.38	2.45±3.59	2.09±3.62	0.36±1.21	0.00±0.00	1.36±1.96	0.00±0.00	1.36±1.96	0.91±1.58	0.91±1.58	0.18±0.40	0.18±0.40

TABLE 18

deflt BY AGE AND EDUCATION FOR ENTIRE POPULATION

AGE	EDUCATION=0		EDUCATION=1		EDUCATION=2		EDUCATION=3		EDUCATION=4	
	NUMBER CHILDREN	deflt	NUMBER CHILDREN	deflt	NUMBER CHILDREN	deflt	NUMBER CHILDREN	deflt	NUMBER CHILDREN	deflt
0-8										
1							1	0.00±0.00	8	0.00±0.00
2	2	0.00±0.00	1	0.00±0.00	6	0.00±0.00	4	0.00±0.00	18	0.00±0.00
3	1	0.00±0.00	1	0.00±0.00	14	0.00±0.00	33	0.00±0.00	18	0.89±2.19
4	7	0.14±0.38	1	0.00±0.00	36	0.36±0.83	42	0.60±1.85	30	0.63±1.33
5	15	1.93±2.89	5	1.60±2.19	76	0.80±1.98	91	1.19±1.93	33	1.33±2.27
6	3	0.33±0.58	6	1.50±1.64	100	1.34±2.07	86	1.20±2.25	39	0.95±1.32
7	9	2.56±2.40	1	1.00±0.00	102	1.55±2.21	99	1.16±1.94	32	1.34±1.79
8	6	0.33±0.52	6	4.00±2.76	99	1.98±2.40	99	1.45±2.34	41	1.44±2.10
9	5	2.20±2.28	7	2.71±3.64	79	1.73±2.25	80	1.25±1.82	52	1.02±1.46
10	3	0.00±0.00	1	0.00±0.00	142	1.73±2.11	94	1.34±1.97	6	1.00±0.63
11	1	0.00±0.00	1	5.00±0.00	37	0.95±1.31	20	1.25±1.55	6	0.33±0.52
12			1	5.00±0.00	16	0.75±1.24	15	0.27±0.80	9	0.56±1.01
13			1	5.00±0.00	35	0.69±0.96	24	0.58±0.88	8	0.50±1.07
14					15	0.13±0.52	17	0.29±0.69	2	1.00±1.41
15							3	0.67±1.15	1	0.00±0.00
16					1	1.00±0.00			2	0.50±0.71
18										
TOTALS	52	1.29±2.17	31	2.29±2.66	758	1.34±2.04	708	1.09±1.93	305	0.95±1.65

NOTE: OVERALL TOTALS WERE 1854--1.20±1.96

Education=0 Information not provided  
 Education=1 8 years or less  
 Education=2 9-12 years  
 Education=3 13-16 years  
 Education=4 Post college

TABLE 19

defs BY AGE AND EDUCATION FOR ENTIRE POPULATION

AGE	EDUCATION=0		EDUCATION=1		EDUCATION=2		EDUCATION=3		EDUCATION=4	
	NUMBER CHILDREN	defs	NUMBER CHILDREN	defs	NUMBER CHILDREN	defs	NUMBER CHILDREN	defs	NUMBER CHILDREN	defs
0.8										
1					6	0.00±0.00	1	0.00±0.00	8	0.00±0.00
2	2	0.00±0.00	1	0.00±0.00	14	0.00±0.00	4	0.00±0.00	18	0.00±0.00
3	1	0.00±0.00	1	0.00±0.00	36	0.36±0.83	33	0.00±0.00	18	2.72±7.59
4	7	0.29±0.76	1	0.00±0.00	76	1.03±2.72	42	1.05±4.36	30	0.80±1.69
5	15	3.07±4.68	5	2.00±2.74	100	2.37±5.03	86	1.86±3.89	33	2.76±7.05
6	3	0.33±0.58	6	3.67±5.85	102	3.23±5.67	99	2.00±4.02	39	1.85±3.68
7	9	5.33±5.12	1	2.00±0.00	99	4.21±6.73	99	2.86±5.72	32	2.19±2.98
8	6	0.50±0.84	6	7.83±6.31	79	3.42±5.77	80	2.18±3.97	41	2.98±5.25
9	5	6.00±7.97	7	5.57±8.42	142	3.36±4.52	94	2.43±3.91	52	1.88±3.21
10	3	0.00±0.00	1	0.00±0.00	37	1.46±2.06	20	2.35±3.31	6	1.33±1.37
11	1	0.00±0.00	1	10.00±0.00	16	1.06±1.65	15	0.33±1.05	6	0.50±0.84
12			1	6.00±0.00	35	1.20±1.95	24	1.13±1.75	9	0.67±1.32
13					15	0.13±0.52	17	0.53±1.33	8	0.88±2.10
14							3	1.00±1.73	2	2.00±2.83
15									1	0.00±0.00
16									2	0.50±0.71
18					1	1.00±0.00				
TOTAL	52	2.50±4.50	31	4.39±5.93	758	2.56±4.85	708	1.86±3.93	305	1.82±4.21

NOTE: OVERALL TOTAL WERE 1854--2.20±4.44

TABLE 20

DMFT BY AGE AND EDUCATION FOR ENTIRE POPULATION

AGE	EDUCATION=0		EDUCATION=1		EDUCATION=2		EDUCATION=3		EDUCATION=4	
	NUMBER CHILDREN	DMFT	NUMBER CHILDREN	DMFT	NUMBER CHILDREN	DMFT	NUMBER CHILDREN	DMFT	NUMBER CHILDREN	DMFT
2							1	0.00±0.00		
3							1	0.00±0.00		
4					4	0.50±1.00	2	0.00±0.00	1	0.00±0.00
5	6	0.00±0.00	2	0.00±0.00	34	0.21±1.04	23	0.04±0.21	10	0.00±0.00
6	2	0.00±0.00	5	0.20±0.45	92	0.20±0.68	88	0.09±0.39	34	0.03±0.17
7	9	0.22±0.67	1	0.00±0.00	98	0.31±0.88	98	0.21±0.61	30	0.23±0.82
8	6	0.33±0.82	6	0.33±0.82	79	0.48±0.97	80	0.34±0.75	41	0.24±0.58
9	5	0.80±1.30	7	0.57±0.53	144	0.58±1.06	94	0.59±1.05	54	0.44±0.88
10	3	0.33±0.58	1	0.00±0.00	42	0.79±1.34	20	0.30±0.73	7	1.43±1.13
11	2	0.00±0.00	2	2.00±2.83	36	0.72±1.26	26	1.23±1.73	11	0.36±0.50
12	1	2.00±0.00	7	2.71±3.15	130	1.53±2.02	81	1.17±1.59	33	1.06±1.43
13	2	1.00±1.41	10	1.70±1.57	115	1.87±2.24	67	0.91±1.54	36	1.22±1.57
14	1	0.00±0.00			21	2.43±2.87	18	1.94±2.65	4	2.00±2.71
15	1	0.00±0.00	2	3.00±1.41	30	3.00±2.56	12	2.58±2.71	13	1.77±1.92
16	2	4.50±0.71	1	5.00±0.00	33	2.45±2.99	21	2.90±3.06	12	1.83±2.29
17	1	2.00±0.00			4	2.25±1.71	5	5.00±6.32	1	4.00±0.00
18	1	0.00±0.00			2	4.50±2.12				
TOTAL	42	0.57±1.19	44	1.32±1.90	864	1.03±1.81	637	0.72±1.57	287	0.67±1.28

NOTE: OVERALL TOTALS WERE 1874--0.87±1.66



TABLE 21

DMFS BY AGE AND EDUCATION FOR ENTIRE POPULATION

AGE	EDUCATION=0		EDUCATION=1		EDUCATION=2		EDUCATION=3		EDUCATION=4	
	NUMBER CHILDREN	DMFS	NUMBER CHILDREN	DMFS	NUMBER CHILDREN	DMFS	NUMBER CHILDREN	DMFS	NUMBER CHILDREN	DMFS
2										
3										
4										
5	6	0.00±0.00	2	0.00±0.00	4	1.00±2.00	1	0.00±0.00	1	0.00±0.00
6	2	0.00±0.00	5	0.20±0.45	34	0.29±1.55	23	0.04±0.21	10	0.00±0.00
7	9	0.22±0.67	1	0.00±0.00	92	0.22±0.78	88	0.11±0.53	34	0.06±0.34
8	6	0.33±0.82	6	0.50±1.22	79	0.39±1.27	98	0.33±1.21	30	0.43±1.61
9	5	1.20±2.17	7	0.71±0.76	144	0.59±1.33	80	0.45±1.15	41	0.39±1.14
10	3	0.67±1.15	1	0.00±0.00	42	0.88±2.08	94	0.81±1.71	54	0.56±1.37
11	2	0.00±0.00	2	4.00±5.66	36	1.08±2.25	26	1.73±3.37	11	0.45±0.69
12	1	3.00±0.00	7	5.00±6.58	130	2.05±3.08	81	1.51±2.25	33	1.39±1.82
13	2	1.00±1.41	10	2.40±2.67	115	2.63±3.39	67	1.09±1.93	36	1.39±1.86
14	1	0.00±0.00			21	3.29±4.24	18	2.22±3.04	4	3.00±4.69
15	1	0.00±0.00	2	6.00±5.66	30	4.27±4.08	12	3.42±4.19	13	2.69±3.43
16	2	6.50±0.71	1	9.00±0.00	33	3.76±6.06	21	4.43±4.81	12	2.58±3.34
17	1	2.00±0.00			4	3.00±2.45	5	7.40±10.57	1	6.00±0.00
18	1	0.00±0.00			2	4.50±2.12				
TOTAL	42	0.76±1.68	44	2.20±3.76	864	1.44±2.87	637	0.96±2.35	287	0.90±1.88

NOTE: OVERALL TOTAL WAS 1874 SUBJECTS AND 1.20±2.59 MEAN AND STANDARD DEVIATION (RESPECTIVELY).

TABLE 22

SUMMARY OF DENTAL CARIES PREVALENCE BY EDUCATION AND AGE GROUPDECIDUOUS TEETH

AGE RANGE	NUMBER CHILDREN	<u>EDUCATION=0</u>		NUMBER CHILDREN	<u>EDUCATION=1</u>	
		deft	defs		deft	defs
≤5	25	1.20±2.40	1.92±3.87	8	1.00±1.85	1.25±2.31
6-8	18	1.44±2.04	2.89±4.35	13	2.62±2.47	5.46±6.02
9-12	9	1.22±1.99	3.33±6.46	10	2.90±3.28	5.50±7.28
TOTAL	52	1.29±2.17	2.50±4.50	31	2.29±2.66	4.39±5.93

AGE RANGE	NUMBER CHILDREN	<u>EDUCATION=2</u>		NUMBER CHILDREN	<u>EDUCATION=3</u>	
		deft	defs		deft	defs
≤5	232	0.90±1.85	1.41±3.76	257	0.92±1.93	1.32±3.31
6-8	280	1.75±2.29	3.63±6.09	278	1.29±2.06	2.36±4.68
9-12	230	1.38±1.86	2.57±3.88	153	1.10±1.73	2.01±3.44
13-15	15	0.13±0.52	0.13±0.52	20	0.35±0.75	0.60±1.35
≥16	1	1.00±0.00	1.00±0.00			
TOTAL	758	1.34±2.04	2.56±4.85	708	1.09±1.93	1.86±3.93

AGE RANGE	NUMBER CHILDREN	<u>EDUCATION=4</u>	
		deft	defs
≤5	107	0.74±1.75	1.53±5.15
6-8	112	1.24±1.77	2.36±4.16
9-12	73	0.90±1.31	1.58±2.82
13-15	11	0.55±1.04	1.00±2.05
≥16	2	0.50±0.71	0.50±0.71
TOTAL	305	0.95±1.65	1.82±4.21

TABLE 22 (CONTINUED)

SUMMARY OF DENTAL CARIES PREVALENCE BY EDUCATION AND AGE GROUP

PERMANENT DENTITION

AGE RANGE	NUMBER CHILDREN	TOTAL TEETH	EDUCATION=0										MES-DIS SURFACES	
			DMFT	SURFACES AT RISK	DMFS	FS	DS	MS	OCCLUSAL SURFACES	BU-LI SURFACES	MES-DIS SURFACES			
≤5	6	2.17±1.17	0.00±0.00	9.67±5.61	0.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00
6-8	17	8.71±2.78	0.24±0.66	37.59±11.62	0.24±0.66	0.00±0.00	0.24±0.66	0.24±0.66	0.00±0.00	0.06±0.24	0.18±0.53	0.00±0.00	0.00±0.00	0.00±0.00
9-12	11	18.18±5.76	0.64±1.03	77.73±26.74	1.00±1.67	1.00±1.67	0.00±0.00	0.00±0.00	0.00±0.00	0.55±0.93	0.45±0.82	0.00±0.00	0.00±0.00	0.00±0.00
13-15	4	28.00±0.00	0.50±1.00	127.00±2.00	0.50±1.00	0.50±1.00	0.00±0.00	0.00±0.00	0.00±0.00	0.50±1.00	0.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00
≥16	4	27.00±2.00	2.75±2.22	120.00±9.80	3.75±3.30	3.75±3.30	0.00±0.00	0.00±0.00	0.00±0.00	2.00±2.31	1.75±1.26	0.00±0.00	0.00±0.00	0.00±0.00
TOTAL	42	13.83±9.16	0.57±1.19	60.48±41.12	0.76±1.68	0.67±1.66	0.10±0.43	0.00±0.00	0.00±0.00	0.40±1.01	0.36±0.79	0.00±0.00	0.00±0.00	0.00±0.00
EDUCATION=1														
≤5	2	3.50±2.12	0.00±0.00	15.50±10.61	0.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00
6-8	12	8.17±3.66	0.25±0.62	35.83±14.81	0.33±0.89	0.25±0.87	0.08±0.29	0.08±0.29	0.00±0.00	0.25±0.62	0.08±0.29	0.00±0.00	0.00±0.00	0.00±0.00
9-12	17	19.82±7.17	1.59±2.35	88.47±34.40	2.82±4.81	1.29±2.89	1.53±4.12	1.53±4.12	0.00±0.00	1.47±2.10	1.06±1.92	0.29±1.21	0.29±1.21	0.29±1.21
13-15	12	27.50±0.90	1.92±1.56	123.42±7.51	3.00±3.28	1.58±2.50	0.92±1.73	0.92±1.73	0.50±1.73	1.92±1.56	0.83±1.40	0.25±0.62	0.25±0.62	0.25±0.62
≥16	1	28.00±0.00	5.00±0.00	128.00±0.00	9.00±0.00	8.00±0.00	1.00±0.00	1.00±0.00	0.00±0.00	4.00±0.00	5.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00
TOTAL	44	18.18±9.40	1.32±1.90	81.23±43.10	2.20±3.76	1.18±2.52	0.89±2.74	0.89±2.74	0.14±0.90	1.25±1.74	0.77±1.58	0.00±0.00	0.00±0.00	0.18±0.81
EDUCATION=2														
≤5	38	2.79±1.58	0.24±1.02	11.97±7.74	0.37±1.58	0.03±0.16	0.24±1.46	0.24±1.46	0.11±0.65	0.11±0.65	0.11±0.39	0.16±0.72	0.16±0.72	0.16±0.72
6-8	269	8.53±3.42	0.32±0.85	37.37±14.50	0.39±1.15	0.21±1.00	0.18±0.63	0.18±0.63	0.00±0.00	0.26±0.80	0.12±0.51	0.01±0.09	0.01±0.09	0.01±0.09
9-12	352	19.15±6.74	0.97±1.58	85.27±31.96	1.37±2.56	0.87±1.93	0.49±1.70	0.49±1.70	0.01±0.16	0.82±1.50	0.47±1.04	0.08±0.53	0.08±0.53	0.08±0.53
13-15	166	27.05±2.04	2.14±2.41	122.25±9.77	3.01±3.67	2.14±3.35	0.73±1.47	0.73±1.47	0.13±0.69	1.95±2.35	0.92±1.47	0.14±0.46	0.14±0.46	0.14±0.46
≥16	39	27.38±1.07	2.54±2.85	123.87±6.24	3.72±5.62	2.46±5.37	0.95±1.49	0.95±1.49	0.31±1.34	2.41±2.82	0.82±1.60	0.49±1.70	0.49±1.70	0.49±1.70
TOTAL	864	17.01±8.97	1.03±1.81	75.98±41.22	1.44±2.87	0.94±2.41	0.45±1.40	0.45±1.40	0.05±0.45	0.90±1.73	0.45±1.07	0.09±0.56	0.09±0.56	0.09±0.56

TABLE 22  
(CONT.)

SUMMARY OF DENTAL CARIES PREVALENCE BY EDUCATION AND AGE GROUP

PERMANENT DENTITION

AGE RANGE	NUMBER CHILDREN	TOTAL TEETH	DMFT	SURFACES AT RISK	EDUCATION=3							MES-DIS SURFACES
					DMFS	FS	DS	MS	OCCLUSAL SURFACES	BU-LI SURFACES		
≤5	27	3.37±2.06	0.04±0.19	14.89±9.72	0.04±0.19	0.00±0.00	0.04±0.19	0.00±0.00	0.04±0.19	0.00±0.00	0.00±0.00	0.00±0.00
6-8	266	8.71±3.47	0.21±0.60	37.77±14.77	0.29±1.02	0.14±0.83	0.15±0.63	0.00±0.00	0.14±0.50	0.00±0.00	0.12±0.48	0.03±0.29
9-12	221	18.81±6.71	0.85±1.37	83.38±31.61	1.13±2.15	0.85±1.76	0.23±0.84	0.05±0.49	0.68±1.27	0.36±0.88	0.40±0.94	0.10±0.55
13-15	97	26.36±3.16	1.31±2.03	118.33±14.75	1.59±2.62	1.18±2.38	0.41±1.07	0.00±0.00	1.09±1.88	0.40±0.94	0.40±0.94	0.09±0.54
≥16	26	27.42±1.17	3.31±3.82	124.19±6.10	5.00±6.15	4.08±5.38	0.69±1.32	0.23±1.18	3.00±3.53	1.65±2.35	1.65±2.35	0.35±0.98
TOTAL	637	15.44±8.69	0.72±1.57	68.42±39.67	0.96±2.35	0.70±2.00	0.24±0.82	0.03±0.38	0.59±1.44	0.30±0.90	0.30±0.90	0.07±0.48
EDUCATION=4												
≤5	11	2.18±0.98	0.00±0.00	9.73±4.94	0.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00
6-8	105	8.51±3.29	0.17±0.58	36.93±14.02	0.30±1.13	0.30±1.13	0.00±0.00	0.00±0.00	0.16±0.56	0.13±0.61	0.13±0.61	0.00±0.00
9-12	105	18.17±6.92	0.70±1.12	80.19±32.62	0.90±1.55	0.64±1.38	0.26±0.68	0.00±0.00	0.59±1.06	0.26±0.57	0.26±0.57	0.05±0.29
13-15	53	26.06±2.80	1.42±1.74	117.09±13.20	1.83±2.59	1.57±2.43	0.26±0.52	0.00±0.00	1.21±1.62	0.57±1.10	0.57±1.10	0.06±0.30
≥16	13	27.77±0.44	2.00±2.27	124.85±4.52	2.85±3.34	2.85±3.34	0.00±0.00	0.00±0.00	1.77±2.01	1.00±1.29	1.00±1.29	0.08±0.28
TOTAL	287	15.92±8.80	0.67±1.28	70.50±40.23	0.90±1.88	0.76±1.77	0.14±0.48	0.00±0.00	0.58±1.18	0.29±0.77	0.29±0.77	0.03±0.23

TABLE 23

Indiana State Dept. of Health Dental Survey

AGE RESTRICTED TO 7 YRS AND UNDER

9:10 Wednesday, March 2, 1994

BABYBOTT	Frequency	Percent	Cumulative Frequency	Cumulative Percent
N	1100	98.1	1100	98.1
Y	21	1.9	1121	100.0

TABLE 23 (CONTINUED)

Indiana State Dept. of Health Dental Survey

AGE RESTRICTED TO 7 YRS AND UNDER

9:10 Wednesday, March 2, 1994

TABLE OF AGE BY BABYBOTT

AGE	BABYBOTT		
Frequency	N	Y	Total
Percent			
Row Pct			
Col Pct			
0.6	1	0	1
	0.09	0.00	0.09
	100.00	0.00	
	0.09	0.00	
0.7	1	0	1
	0.09	0.00	0.09
	100.00	0.00	
	0.09	0.00	
0.8	1	0	1
	0.09	0.00	0.09
	100.00	0.00	
	0.09	0.00	
1	18	0	18
	1.61	0.00	1.61
	100.00	0.00	
	1.64	0.00	
2	68	0	68
	6.07	0.00	6.07
	100.00	0.00	
	6.18	0.00	
<b>Total</b>	<b>1100</b>	<b>21</b>	<b>1121</b>
	98.13	1.87	100.00

(Continued)

TABLE 23 (CONTINUED)

Indiana State Dept. of Health Dental Survey  
 AGE RESTRICTED TO 7 YRS AND UNDER

9:10 Wednesday, March 2, 1994

TABLE OF AGE BY BABYBOTT

AGE	BABYBOTT		Total
	N	Y	
3	96	2	98
	8.56	0.18	8.74
	97.96	2.04	
	8.73	9.52	
4	201	4	205
	17.93	0.36	18.29
	98.05	1.95	
	18.27	19.05	
5	232	8	240
	20.70	0.71	21.41
	96.67	3.33	
	21.09	38.10	
6	244	5	249
	21.77	0.45	22.21
	97.99	2.01	
	22.18	23.81	
7	238	2	240
	21.23	0.18	21.41
	99.17	0.83	
	21.64	9.52	
Total	1100	21	1121
	98.13	1.87	100.00

TABLE 23 (CONTINUED)

Indiana State Dept. of Health Dental Survey  
 AGE RESTRICTED TO 7 YRS AND UNDER

9:10 Wednesday, March 2, 1994

TABLE OF RACE BY BABYBOTT

RACE	BABYBOTT		Total
	N	Y	
Frequency			
Percent			
Row Pct			
Col Pct			
A	8	0	8
	0.71	0.00	0.71
	100.00	0.00	
	0.73	0.00	
B	500	14	514
	44.68	1.25	45.93
	97.28	2.72	
	45.54	66.67	
H	33	0	33
	2.95	0.00	2.95
	100.00	0.00	
	3.01	0.00	
W	557	7	564
	49.78	0.63	50.40
	98.76	1.24	
	50.73	33.33	
Total	1098	21	1119
	98.12	1.88	100.00

Frequency Missing = 2



TABLE 23 (CONTINUED)

Indiana State Dept. of Health Dental Survey  
 AGE RESTRICTED TO 7 YRS AND UNDER

9:10 Wednesday, March 2, 1994

TABLE OF INCOME BY BABYBOTT.

INCOME	BABYBOTT		Total
	N	Y	
0	83	4	87
	7.40	0.36	7.76
	95.40	4.60	
	7.55	19.05	
1	254	7	261
	22.66	0.62	23.28
	97.32	2.68	
	23.09	33.33	
2	382	4	386
	34.08	0.36	34.43
	98.96	1.04	
	34.73	19.05	
3	257	5	262
	22.93	0.45	23.37
	98.09	1.91	
	23.36	23.81	
4	124	1	125
	11.06	0.09	11.15
	99.20	0.80	
	11.27	4.76	
Total	1100	21	1121
	98.13	1.87	100.00

TABLE 23 (CONTINUED)

Indiana State Dept. of Health Dental Survey  
 AGE RESTRICTED TO 7 YRS AND UNDER

9:10 Wednesday, March 2, 1994

TABLE OF RESID BY BABYBOTT

RESID	BABYBOTT		Total
	N	Y	
0	1	0	1
	0.09	0.00	0.09
	100.00	0.00	
	0.09	0.00	
1	208	6	214
	18.55	0.54	19.09
	97.20	2.80	
	18.91	28.57	
2	891	15	906
	79.48	1.34	80.82
	98.34	1.66	
	81.00	71.43	
Total	1100	21	1121
	98.13	1.87	100.00

TABLE 23 (CONTINUED)

Indiana State Dept. of Health Dental Survey  
 AGE RESTRICTED TO 7 YRS AND UNDER

9:10 Wednesday, March 2, 1994

TABLE OF EDUCPA BY BABYBOTT

EDUCPA	BABYBOTT		Total
	N	Y	
0	374	7	381
	33.36	0.62	33.99
	98.16	1.84	
	34.00	33.33	
1	13	1	14
	1.16	0.09	1.25
	92.86	7.14	
	1.18	4.76	
2	371	4	375
	33.10	0.36	33.45
	98.93	1.07	
	33.73	19.05	
3	245	6	251
	21.86	0.54	22.39
	97.61	2.39	
	22.27	28.57	
4	97	3	100
	8.65	0.27	8.92
	97.00	3.00	
	8.82	14.29	
Total	1100	21	1121
	98.13	1.87	100.00

TABLE 23 (CONTINUED)

Indiana State Dept. of Health Dental Survey  
AGE RESTRICTED TO 7 YRS AND UNDER

9:10 Wednesday, March 2, 1994

TABLE OF EDUCMA BY BABYBOTT

EDUCMA	BABYBOTT		Total
	N	Y	
0	64	1	65
	5.71	0.09	5.80
	98.46	1.54	
	5.82	4.76	
1	24	1	25
	2.14	0.09	2.23
	96.00	4.00	
	2.18	4.76	
2	481	12	493
	42.91	1.07	43.98
	97.57	2.43	
	43.73	57.14	
3	410	4	414
	36.57	0.36	36.93
	99.03	0.97	
	37.27	19.05	
4	121	3	124
	10.79	0.27	11.06
	97.58	2.42	
	11.00	14.29	
Total	1100	21	1121
	98.13	1.87	100.00

TABLE 23 (CONTINUED)

Indiana State Dept. of Health Dental Survey  
 AGE RESTRICTED TO 7 YRS AND UNDER

9:10 Wednesday, March 2, 1994

TABLE OF SEX BY BABYBOTT

SEX	BABYBOTT		Total
	N	Y	
F	554	12	566
	49.42	1.07	50.49
	97.88	2.12	
	50.36	57.14	
M	546	9	555
	48.71	0.80	49.51
	98.38	1.62	
	49.64	42.86	
Total	1100	21	1121
	98.13	1.87	100.00

TABLE 24

Indiana State Dept. of Health Dental Survey

10:04 Tuesday, September 21, 1993

	MEANGING		
	N	MEAN	STD
AGE			
0.6	1.00	0.00	.
0.7	1.00	0.00	.
0.8	1.00	0.00	.
1	18.00	0.00	0.00
2	67.00	0.00	0.04
3	97.00	0.06	0.15
4	205.00	0.11	0.19
5	238.00	0.17	0.27
6	249.00	0.10	0.13
7	238.00	0.16	0.19
8	211.00	0.18	0.19
9	304.00	0.20	0.21
10	73.00	0.21	0.22
11	76.00	0.20	0.25
12	251.00	0.22	0.24
13	230.00	0.27	0.28
14	44.00	0.31	0.26
15	57.00	0.28	0.35
16	68.00	0.29	0.27
17	11.00	0.41	0.21
18	2.00	0.74	0.84
ALL	2442.00	0.18	0.23

TABLE 24 (CONTINUED)

Indiana State Dept. of Health Dental Survey

10:04 Tuesday, September 21, 1993

	MEANGING		
	N	MEAN	STD
RACE			
A	17.00	0.13	0.17
B	803.00	0.13	0.22
H	127.00	0.27	0.31
W	1495.00	0.20	0.23

TABLE 24 (CONTINUED)

Indiana State Dept. of Health Dental Survey

10:04 Tuesday, September 21, 1993

	MEANGING		
	N	MEAN	STD
SEX			
F	1266.00	0.18	0.25
M	1176.00	0.17	0.21



TABLE 25

Indiana State Dept. of Health Dental Survey

10:04 Tuesday, September 21, 1993

	MEANTSIF		
	N	MEAN	STD
AGE			
0.6	0.00	.	.
0.7	0.00	.	.
0.8	0.00	.	.
1	0.00	.	.
2	0.00	.	.
3	2.00	0.00	0.00
4	5.00	0.00	0.00
5	58.00	0.11	0.35
6	211.00	0.30	0.55
7	234.00	0.36	0.56
8	211.00	0.28	0.50
9	303.00	0.27	0.53
10	72.00	0.15	0.33
11	76.00	0.20	0.37
12	252.00	0.16	0.41
13	229.00	0.16	0.38
14	44.00	0.13	0.42
15	58.00	0.08	0.32
16	69.00	0.14	0.29
17	11.00	0.07	0.24
18	2.00	0.00	0.00
ALL	1837.00	0.23	0.47

TABLE 25 (CONTINUED)

Indiana State Dept. of Health Dental Survey

10:04 Tuesday, September 21, 1993

	MEANTSIF		
	N	MEAN	STD
RACE			
A	11.00	0.28	0.56
B	457.00	0.29	0.52
H	111.00	0.24	0.53
W	1258.00	0.21	0.45

TABLE 25 (CONTINUED)

Indiana State Dept. of Health Dental Survey

10:04 Tuesday, September 21, 1993

	MEANTSIF		
	N	MEAN	STD
SEX			
F	978.00	0.21	0.45
M	859.00	0.24	0.50

