

# Prevalence of Dental Caries in Private & Public School Children

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## **Introduction**

Dental caries a dynamic disease, is an important dental public health problem and is the most prevalent disease of oral cavity among children in the world\*.

This disease not only causes damage to health but is also responsible for several morbid conditions(such as periapical abscess, periapical granuloma ,Cyst) of the oral cavity and other systems of the body\*\*\*\*. Although the prevalence of caries is declining ,mainly because of the wide spread of fluorides ,there still remains a subgroup of susceptible children at high caries risk. The dental caries usually starts in childhood and is undetected till adult life leading to complications and tooth mortality.

Dental caries is a multifactorial disease influenced by many factors including age,sex,diet,microorganisms,oral hygiene etc.

The present study was performed in order to analyze these factors which can help to plan preventive strategies for children. The aim was to investigate the prevalence of dental caries among the private and public school going children.

**Materials and Method :**

The proforma was filled by asking following questions to each student in the language of his /her understanding\*\*\*.

- 1)Frequency of cleaning teeth. (once /Twice or more)
- 2)Material used for cleaning (Toothpaste /Toothpowder/Charcoal /Snuff/Salt /Neamstick etc)
- 3)Mode of cleaning. (Toothbrush/Finger/Neamstick etc)
- 4)Frequency of visit to dentist

The present study was conducted on 1108 school going children in Hingna village of Nagpur City which included 343 children from private school and 765 children from public school of standard 1<sup>st</sup> to 7<sup>th</sup> having age groups approximately between 5-12 years. This age group of children has been chosen as this is considered as the global monitoring age for caries. This includes primary as well as permanent dentition\*\*. So early intervention and prevention can be carried easily. The children were examined in their respective schools in an ordinary chair in broad daylight with the help of torch in as far as possible aseptic condition. Examination was done using mouth mirror and explorer No.23. The surfaces which are obscured by debris and calculus was cleaned by supragingival scalers for detection of caries.

Among 343 children ,202 boys and 141 girls were there in private school and among 765 children ,462 boys and 303 girls were there in public school.

Out of the total figure,117children from private school and 582children from public school were affected by dental caries.

**Result :**

The tabulation form of the study is as follows :

**Oral health behavior of private and public school going children\*\*\***

<b>Oral health related behaviour</b>		Private	Public
<b>Total Students</b>		343	765
<b>Gender</b>	Boys	202	462
	Girls	141	303
<b>Mode of Cleaning Teeth</b>	Finger	6(1.74%)	176(23%)
	Toothbrush	337(98.25%)	555(72.54%)
	Neemstick	Nil	34(4.44%)
<b>Frequency of Cleaning</b>	Once daily	262(76.38%)	748(97.77%)
	Twice or more than a day	81(23.61%)	17(2.22%)

<b>Material used for cleaning teeth</b>	Toothpaste	329(95.91%)	312(40.78%)
	Toothpowder	14(4.08%)	413(53.98%)
	Others:Coal,snuff,salt etc	Nil	40(5.22%)
<b>Type of diet</b>	Vegetarian	119(34.69%)	527(68.88%)
	Mixed	224(65.30%)	238(31.11%)
<b>Dental Visit</b>	Never visited	245(71.42%)	744(97.25%)
	Previously Visited	98(28.57%)	21(2.74%)
<b>Decayed teeth</b>	Absent	226(65.88%)	183(23.92%)
	Present	117(34.11%)	582(76.07%)
	Girls	34(29.05%)	216(37.11%)
	Boys	83(70.94%)	366(62.88%)

### Prevalance of different types of caries:

In all 1108 students were examined in private and public school and out of these the teeth of 699 students were found to be carious. The prevalence of different types of caries is as follows\*\*\*\*\*:

Type of caries	Private	Public
Number of children affected	117	582
Number of teeth affected	291	1794
Pit and Fissure Caries	74(25.42%)	256(14.26%)

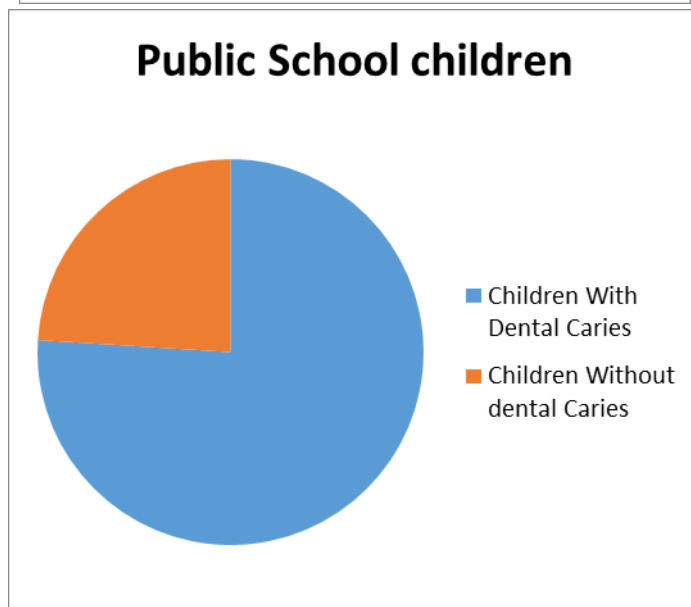
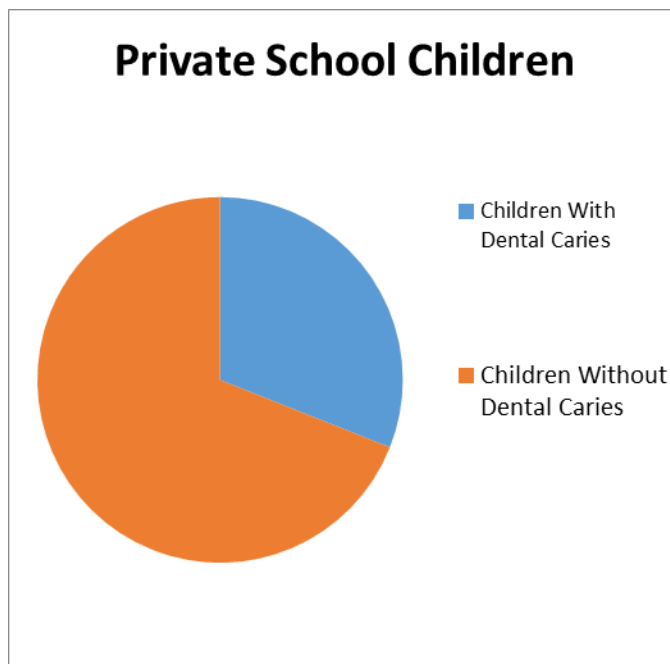
Proximal Caries	77(26.46%) )	683(38.07%) )
Deep occlusal Caries	48(16.49%) )	456(25.41%) )
Grossly Carious	84(28.86%) )	326(18.17%) )
Cervical Caries	8(2.74%)	73(4.06%)
Rampant Caries	2(0.68%)	2(0.11%)
Nursing bottle caries	2(0.68%)	Nil

From the above table it can be observed that proximal caries has the highest prevalent rate and rampant caries and nursing bottle caries has the least prevalence in both private and public school going children.

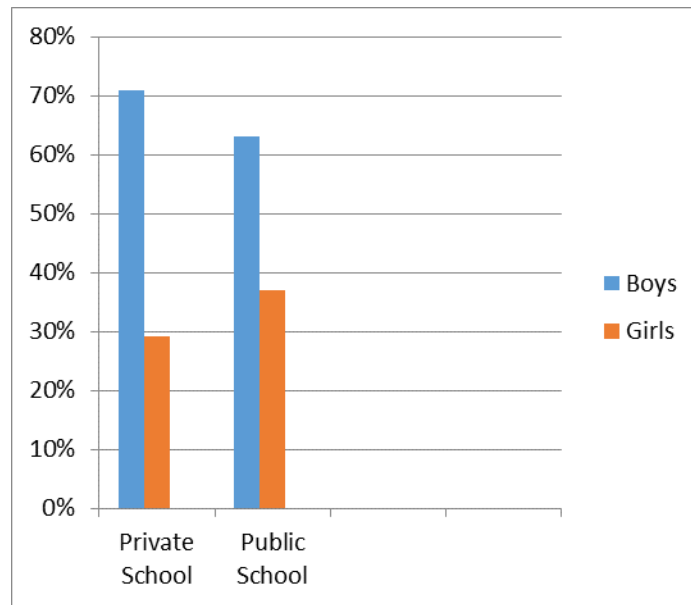
Also deep retentive fissures are observed which often shows high susceptibility to caries. Root caries if present is not included in this study as it cannot be seen clinically

### **Diagramatic Presentation**

Prevalence of caries in private and public school going children\*\*



**Prevalence of Dental Caries among Boys and Girls\*\*\*\*\***



-The children belonging to public school have high prevalence of dental caries i.e 76.07% as compared to private school going children i.e 34.11%

-Boys are more prone to caries than girls.

In private school : Boys:70.94%

Girls:29.05%

In public school : Boys:62.88%

Girls:37.11%

### Conclusion:

As per the present survey conducted, it is observed that due to lack of awareness in public school children, which includes improper brushing technique, poor oral hygiene, imbalanced diet, and negligence towards oral health care, shows high caries rate as compared to private school children. Moreover, because of low socioeconomic status of public school children, and improper materials used for cleaning the teeth more fatalistic views of dental caries are seen.

The data suggests that there is a need for accessible and affordable oral health services. Also there is high need for improving the knowledge, attitude and behavior of children towards the oral health.

If such programmes and required self care habits are maintained, there is possibility that sound tooth surfaces would remain intact throughout the life of individual.

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