

# Comparative Study of School Sanitation in Rajkot City

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**Abstract** -This paper is based on a study carried out in twenty urban schools in Rajkot, located in Gujarat state, India. Data was collected from both the government and non- government schools to compare the sanitation and hygiene practice in the schools. Data was gathered mainly with the aid of interviews and questionnaires. The survey was conducted in ten government school and ten non-government school. The data were collected from some separate girls and boys School also. Fifty students were randomly selected from each school for questionnaire. This study shows that government schools in urban areas also need improvement and want to build and maintain infrastructure to promote Water supply, Sanitation and hygiene. This study revealed that improving hygiene and sanitation of schoolchildren is a significant factor for achieving good educational outcomes. Lack of potable water supply and toilets in the schools could affect the general hygiene status of the schools and the practice of hand washing by the pupils. The ultimate goal of the program is to build positive attitudes and feelings of self-esteem of users to maintain hygiene and sanitation behavior.

**Key Words:**Schools, sanitation, hygiene, government schools, non - government schools.

## 1. INTRODUCTION

In developing countries Diseases related to inadequate water, sanitation and hygiene are a huge burden. It is estimated that 88% of diarrheal disease is caused by unsafe water supply, and inadequate sanitation and hygiene (WHO, 2004c). Many schools serve communities that have a high occurrence of diseases related to inadequate water supply, sanitation and hygiene (particularly lack of hand washing), and where problems like child malnutrition and other underlying health are common. If everyone in the world had access to a regulated piped water supply and sewage connection in their houses, 1863 million days of school attendance would be gained due to less diarrheal illness (WHO, 2004c).

School sanitation and hygiene refers to the combination of hardware and software components that are essential to produce a healthy environment in school and to support safe hygiene behaviours. The hardware components include drinking water, hand washing and sanitary facilities in and around the school compound. The

software components are activities that encourage conditions at school and practices of school staff that help to prevent water and sanitation-related diseases and parasites. (UNICEF and IRC 1998). Access to sanitary toilets positively impacts health, well-being and productivity, reduces drop-out rates and encourages regular attendance in schools and also ensures self-respect of the human being.

Poor sanitation, inferior water quality, water scarcity and inappropriate hygiene behaviour are terrible for infants and young children and are a major cause of mortality for children under five. Those conditions are also harmful to the health of school-aged children, who spend long time in schools. The physical environment and cleanliness of a school facility can significantly affect the health and well-being of children. Disease spreads quickly in cramped spaces with limited ventilation, where hand-washing facilities or soap are not available, and where toilets are in disrepair (UNICEF).

Gujarat is one of the most developed among many states of India with a higher than average per capita income; but it continues to lag behind in social sectors. There is been very slow progress in the field of sanitation. As per 2001 Census, rural sanitation reporting stands at low 20%. Government of Gujarat has embark upon a motivated programmed of "Total Sanitation operation" to provide 100% access to sanitation services in the state by 2015. UNICEF has been an energetic partner of the Government of Gujarat.

The children of today will be the adults of tomorrow. By focusing on children today, by giving them tools and knowledge to change behaviour, future generation can be stronger and healthier. Schools being ideal setting for promoting learning and the health of children can serve as a community model for health and environmental care. Thus, school water supply, sanitation and hygiene education program becomes very important. (UNICEF)

### 1.1 UNICEF Water Sanitation and Hygiene (WASH) Program

The UNICEF WASH program is active in over 100 countries in all seven UNICEF regions. Programs at country level range from large-scale, integrated program of support for sanitation, hygiene and water interventions to smaller interventions targeting specific outcomes in support of UNICEF country program goals. Country programs engage with government partners and other sector actors as well

as providing strategically targeted service delivery. UNICEF influences changes to national sector policies and strategies in line with lessons learned and best practices UNICEF strengthens the government capacity to plan, implement, manage and sustain WASH services and also advocates for national WASH programs that deliver more equitable outcomes for the most marginalized populations, reaching all children equitably. Service delivery helps increase access to WASH, while at the same time generating lessons and innovations and building the evidence to contribute to improved policy and practices. In this way UNICEF helps to ensure that efforts to strengthen the enabling environments for WASH are based on the realities on the ground.

## 1.2 Education and WASH in Urban India

Along with striving towards realization of the norms of millennium Development Goal (MDG), and universalization of elementary education, the government of India empowers all its citizens with the Right to Education Act, and also providing with the SarvaSikshanaAbhiyan (SSA), the free and compulsory education for children, there is remarkable increase in enrolment in schools, however, only a marginal dent has been made in school dropout rate.

In urban areas, the municipal schools poor condition of WASH infrastructure has led to increase in absenteeism and a higher dropout rate. The recent survey of municipal schools, conducted by Urban Management Centre an Ahmedabad based organization in municipal schools Ahmedabad, also reveals that a severe lack of adequate and clean WASH infrastructure. The issue of poor WASH infrastructure adversely affects the attendance of girls who either drinking adequate water in the fear of using dirt toilets or remain absent from school especially when menstruating that led to final dropout of girls. This exacerbates the susceptibility of students to diarrheal infection and other infectious diseases due to poor sanitation facilities and unsafe drinking water. The lack of awareness about WASH activities like hand washing after defecation and before having meal is a major cause of diarrheal infection and sometimes death in early ages. (Ahmedabad Sanitation Action Lab, 2015)

## 2. NEED OF STUDY

Girls and boys are likely to be affected in different ways by inadequate water, sanitation and hygiene conditions in schools, and this may contribute to unequal learning opportunities. Sometimes, girls and female teachers are more affected than boys because the lack of sanitary facilities means that they cannot attend school during menstruation (WHO, 2009). Guidelines on water, sanitation and hygiene in schools are widely available, but additional guidance and standards for low-cost settings are needed.

So the study of Sanitation and hygiene was selected to check the status and also to compare the sanitation facility of government and non-government schools in Rajkot city, India where it is believed that non –government schools have better sanitation and Hygiene practice than government schools.

## 3. METHODOLOGY

Twenty schools were randomly selected for the study among them 10 schools are government and 10 schools are non-government. The schools which are selected for study includes primary, higher primary and secondary schools. Two girls school one from government and other from non-government school is also selected for the study. Informed approval was taken from the Heads of the schools. Their informed consent was taken. Information on parameters such as water facilities, toilet blocks, cleaning facilities, hand washing facilities, Method of waste disposal in the schools, availability of soap in the schools was collected. A pre tested close ended questionnaire was used to get the information. The minimum standards decided for sanitation of the school and its environment in India (Gujarat) were used as the guiding principles to evaluate the sufficiency of the various attributes.

The sample for the study comprises 50 respondents from each school, who were randomly selected from twenty schools in the district. The main instruments used in gathering data were questionnaire and semi-structured interview. Ten items made up of open and close ended types of questions were used to collect data on how students in their school practice sanitation and hygiene. The questionnaire was designed based on the objectives of the study. The selected students in each school were put into one group in a classroom and were encouraged to answer from the questionnaire after permission had been sought from the head teachers. The selected students were from class six to high schools. The response from the government schools was good compared to non – government schools.

Table 1 shows the questionnaire forms used to collect the data from the school authority, the above questionnaire was formed on the basis of different literature review. The questionnaire contains three parts, i.e. water supply, sanitation and hygiene. Students were asked whether they drink treated water, if yes, which type of treatment they (Schools) are using and it was also enquired whether the school is using bore well water or municipal water. Condition of the toilet was asked to rate as Good, Average or Poor. Hygiene related questions like availability of hand washing facilities and soaps were also enquired.

**Table -1:** Questionnaire Form

Sl No.	Particulars	
1	School Name:	
2	School Type:	
3	Number of students:	
4	Number of boys	
5	Number of girls	
6	Water source functional(Yes or no) :	
7	Treatment of water before use: (Yes or no)	
8	Number of toilet facility	
9	Condition of toilets:	
10	Number of times toilets cleaned per day	
11	Number of cleaning staff:	
12	Hand washing facility: (Yes or no)	
13	Availability of soap (Yes or no)	
14	Is hygiene taught in school (Yes or no)	

#### 4. RESULTS AND DISCUSSION

Based on the above enquiry the work has been divided to compare the water supply facilities, sanitation and hygiene in government and non-government schools. There are about 1000 respondents from government and non - government school.

Research question 1: whether the school water source is functional?

The table below shows the response provided by respondents when they were asked to indicate whether their school water source is functional or not. Students were first made aware about different source of water supply they are getting for schools different source are bore wells, Rajkot Municipal Corporation (RMC), water tanker etc.

**Table -2:** Function of water source

Response	Percentage	
	Government school	Non -Government school
Yes	68	83
No	20	10
Don't know or not responded	12	07

From Table 2 it has been observed that about 68% students from government schools and 83% students from non-government schools voted yes for functionality of water source. Most of the schools which are dependent on RMC, are not getting water throughout the day. It was noticed that some students don't have any knowledge about the source of water they are getting for schools although they were made aware about different source of water. Result shows that non-government school has better water functionality compare to the government school.

Research question 2: number of toilet facility is sufficient?

**Table -3:** sufficient number of toilets

Response	Percentage	
	Government school	Non -Government school
Yes	48	70
No	50	26
Don't know or not responded	02	04

Table 3 shows government schools doesn't have sufficient number of toilets. Schools has been checked for gender friendliness of toilet also, it was observed that all the government schools and non-government schools which are surveyed has separate toilets for boys and girls.

Research question 3: Is the condition of toilet is good, average or poor?

Table 4 shows that condition of toilets in government are not good or well maintained. During the survey in the some of the government school it has been observed that students use to clean the toilet. In some of the government school student's expressed that toilet doors were not properly closing and some of the doors don't have locks also. Study revealed that there are less cleaning workers compared to number of toilets. This may be the reasons to use students for the cleaning of toilets.

**Table -4:** condition of toilets

Response	Percentage	
	Government school	Non -Government school
Good	38	83
Average	40	11
Poor	22	07

Research question 4: is there is availability of hand washing facility?

**Table -5:** Hand washing facility

Response	Percentage	
	Government school	Non -Government school
Yes	89	90
No	10	08
Don't know or not responded	01	02

Table 5 shows most of the government and non-government schools have hand washing facilities. Many of the government schools have not maintained neatness in hand washing facilities, it looked like it has been not cleaned from many days and aesthetically it was not good. Figure 1 shows the hand washing facility in one of the government school surveyed in Rajkot city



Fig -1: Hand washing facility in one of the government school

Research question 5: is there is availability of soap?

From Table 6 it can be noticed that in many government schools there are no hand washing soaps available. When it was enquired with the authority it has been revealed that soaps are stolen and misused in both government schools and non- government schools

**Table -6:** Availability of Soap

Response	Percentage	
	Government school	Non -Government school
Yes	40	60
No	55	38
Don't know or not responded	05	02

Research question 6: is hygiene taught in school?

**Table -7:** Hygiene taught in school

Response	Percentage	
	Government school	Non -Government school
Yes	90	93
No	08	04
Don't know or not responded	02	03

Table 7 reflects that in both government and non-government schools students are aware about hygiene. They are told to wash their hands before eating the food, to keep napkins, use dustbins to throw away the waste and etc. Now a day's awareness regarding hygiene is taught in every school as per the survey.

### 5. CONCLUSIONS

The conclusion were arrived on the basis of classification of raw data collected from government and non-government- schools situated in the Rajkot city.

1. No alternate facility is provided for water supply in summer season in government schools
2. In most of the government schools toilet doors are not working properly and doesn't have proper locking system.
3. Less attention is paid to cleanliness of toilets in non-government schools.
4. Although hand washing facilities are provided it is not well maintained in some of the non - government schools.
5. Non-government schools are practicing very good hygiene compared to government schools.

It can be conclude that facilities in government schools lacks compared to non-government schools. Government schools needs to improve because sanitation is the basic facilities to be provided. It is the fact that continuing decline in school sanitation and hygiene education could results in poor school attendance and possible drop-out rate of students. Proper measures has to be taken by the authority to improve the sanitation facilities in the government schools of Rajkot city.

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### BIOGRAPHIES



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