

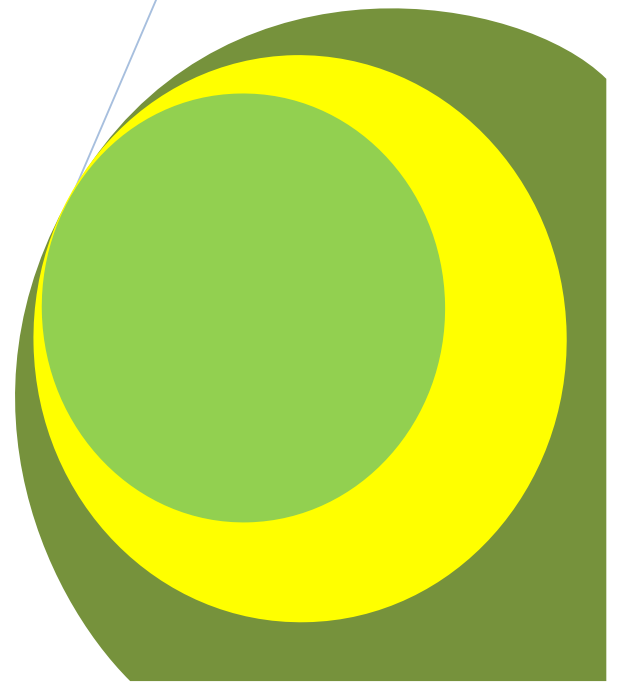
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## **An assessment of toilet facilities in secondary schools in Jos North Local Government Area of Plateau State**

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*Research Article*

# An assessment of toilet facilities in secondary schools in Jos North Local Government Area of Plateau State

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**ABSTRACT**

**Background:** Toilet facilities among many other facilities ought to be present in schools to promote hygiene and meet the physical and emotional needs of staff and students.

**Objectives:** The study assessed school ownership, availability and type of toilet facilities in secondary schools.

**Methodology:** This was a school based observational study. An interviewer administered semi- structured questionnaire to selected staff and students in fifty-three secondary schools was used for data collection.

**Results:** Day and boarding schools were 71.7% and 28.3% respectively; 75.5% privately owned. Forty five schools (84.9%) had toilet facilities, while 1/6th of the schools had none. Water carriage toilets (water squatting and water seat) comprised 20 (21.6%) while the non-water carriage accounted for 55 (59%).

Twenty-nine (54.7%) provided toilets facilities for the different sexes while 24 (45.3%) did not. A non-statistically significant association ( $p = 0.034$ ) was found between ownership of school and type of toilet facility provided.

**Conclusion:** About 76% of schools were non-governmental of which 92.5% had toilet facilities. Half of the schools made separate provision for the different sexes.

**Recommendation:** Schools should ensure the sustainability of good sanitary practices through the provision of toilet facilities in schools.

**Key words:** toilet facilities, students, schools, sanitation.

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**INTRODUCTION**

Facilities for academic and non-academic activities need to be properly put in place to provide an optimal sanitary environment which is safe and conducive for physical, mental and emotional health of the student in order to achieve maximum benefits from educational programmes. (Joshua 2004, Vernon (2003) Human excreta which form an important cause of environmental pollution need to be properly disposed through modern methods that are socially and culturally acceptable to the people. (UNICEF 2009, Dworsky 2007) Apart from its availability, the facilities should proportionately meet the demand of the population of both students and members of staff in such institutions.

A visit to most schools, especially public school, would reveal serious concern about the school environment where students learn, some of which lack or characterized with inadequate toilet facilities. (Weidner 2009, Weiler et al. 2003, UN-Water decade programme 2007) Provision of toilet facilities is considered a privilege rather than a necessity by most school authorities; which may affect school programmes failing in their roles to address health issues of the students but rather concentrating on the academic pursuits of these students. Inadequate or lack of toilet facilities has its health implications, some of these may be bacterial, viral and parasitic in origin such as typhoid and paratyphoid fever, dysenteries, diarrhoeas, cholera, hookworm, ascariasis, viral hepatitis, schistosomiasis, guinea worm diseases, genito-urinary tract infections and a host of other intestinal and parasitic infections or even eye infections like trachoma (caused by Chlamydia trachomatis which is caused by flies that breed in dirty environment) which may lead to blindness, which can occur due to environmental pollution as a result of indiscriminate disposal of human excreta and inadequate sanitation. The burden of disease due to poor toilet facilities may incur huge financial losses to the individual, parents and the nation as a whole in terms of cost of ill-health investigations and treatment.

This study aimed at assessing the quality of toilet facilities in secondary schools in Jos North LGA of Plateau State by determining the ownership, availability and the type of toilet facilities in the selected secondary schools.

## MATERIALS AND METHODS

This was a school based cross sectional descriptive study of 53 selected secondary schools from three among the twenty wards in Jos North LGA. The LGA is one of the seventeen LGAs in Plateau State, Nigeria. Its headquarters are in the State capital of Jos, it has an area of 291km<sup>2</sup> (112.4sqm) and a population of 429,300 people. (National population commission 2009) The LGA, schools were selected by a simple random sampling technique through balloting. Information was obtained on school ownership, availability and type of toilet facilities through an interviewer administered semi -structured questionnaires to the Head teacher (Administration) and the labour prefects in the schools.

Data was analyzed by the statistical soft ware SPSS version 16. Frequencies and percentages were calculated and chi square test was used to analyse the association between school ownership and availability of toilet facilities and a p value of  $\leq 0.05$  was considered statistically significant.

## RESULTS

The questionnaire was administered to 53 secondary schools in 3 (15%) of the 20 wards in the LGA. The boarding schools were only 28.3% of the schools. Of the 53 schools studied, more than half (75.5%) are privately owned.

**Table 1: Type and Ownership of school**

| Type of school            | Frequency | Percentage (%) |
|---------------------------|-----------|----------------|
| Boarding                  | 15        | 28.3           |
| Day                       | 38        | 71.7           |
| <b>Total</b>              | <b>53</b> | <b>100.0</b>   |
| Ownership of school       |           |                |
| Public (Government owned) | 13        | 24.5           |
| Private                   | 40        | 75.5           |
| <b>Total</b>              | <b>53</b> | <b>100.0</b>   |

Close to half 45 (84.9%) of the schools had toilet facilities for the students while those without comprised 1/6th of the schools studied. The type of toilet provided varied between the private and the government owned schools and most of the non- water carriage toilets (pit toilet and ventilated improved toilets) were those sited in the government owned schools. A total number of 93 toilets were available in the 53 schools; on the overall pit toilet comprised 49 (52.9%) while few schools 6 (6.4%) had the ventilated improved toilet type. Eighteen schools (19.4) had mixed toilet type, i.e. pit toilet and water seat toilet type. The water carriage type (water squatting and water seat) comprised 20 (21.6%) while the non-water carriage type accounted for 55 (59%).

**Table 2: Availability and type of toilets in schools**

| Availability of toilets         | Frequency | Percentage (%) |
|---------------------------------|-----------|----------------|
| Yes                             | 45        | 84.9           |
| No                              | 8         | 15.1           |
| <b>Total</b>                    | <b>53</b> | <b>100.0</b>   |
| Type of toilets                 | Frequency | Percentage (%) |
| Pit toilet                      | 49        | 52.6           |
| Ventilated improved pit latrine | 6         | 6.4            |
| Water Squatting                 | 10        | 10.8           |
| Water Seat                      | 10        | 10.8           |
| Mixed                           | 18        | 19.4           |
| <b>Total</b>                    | <b>93</b> | <b>100.0</b>   |

\*Mixed= schools with both the pit and water seat toilets

Twenty-nine (54.7%) provided toilets facilities for the different sexes while 24 (45.3%) did not. A statistical test of association between school ownership and type of toilet was non-statistically significant ( $p = 0.034$ ).

**Table 3: Separate toilets for males and females**

| Separate toilets for the sexes | Frequency | Percentage (%) |
|--------------------------------|-----------|----------------|
| Yes                            |           |                |
| No                             | 29        | 54.7           |
|                                | 24        | 45.3           |
| <b>Total</b>                   | <b>53</b> | <b>100</b>     |

**Table 4: Ownership of school and type of toilet**

| Ownership of school | Toilets available |          | Total     |
|---------------------|-------------------|----------|-----------|
|                     | Yes               | No       |           |
| Public              | 8                 | 5        | 13        |
| Private             | 37                | 3        | 40        |
| <b>Total</b>        | <b>45</b>         | <b>8</b> | <b>53</b> |

**Yates's  $X^2=4.47$ ;  $df= 1$ ;  $P=0.034$**  There was no statistically significant relationship between school ownership and available toilet facility.

## DISCUSSION

Provision of toilet facilities in schools ought to be one of the prerequisite (Sharma 2011) for granting approval for its commencement; however this is not usually enforced. Even in schools with such facilities, not all had separate toilet facilities for the different sexes as some even had no toilet facility at all. This was similar to findings from an independent study carried out among students of Pong–Tamale senior high school Ghana in 2010. (Westerhof 2010) According to World Health Organization, schools provide not just toilets but toilets which should be in the ratio of 1:30 learners (WHO 2010), i.e. provide at least a toilet for every 30 learners; however none of the schools studied met this criterion. This may either be that ab initio, was not taken into consideration during the construction process or that these schools have suddenly been overwhelmed by the growing population of school attendees with no existing policy in place to cater for future expansion. An insufficient toilet/student ratio contributed to overuse, filthy conditions and a consequent return to open defecation around schools, or absenteeism in order to use a home toilet. (Pillitteri 2012)

It was also observed that most of the schools had separate toilets for their members of staff even in schools with two toilets; one was usually kept for the teachers and other staff members. This disparity and misplaced priority should be addressed considering that most schools now have existing Parent's Teachers Association (PTA) and part of its mandate is to address staff, school and parents welfare among many other things. Separate toilets for the different sexes ought also for the students in order to provide privacy, promote health and hygiene and to minimize any form of social vices. Majority of the schools studied were non-governmental, usually characterized by higher fees than those paid in the government owned schools and these private schools are usually better managed than their public counterparts. Most of the private schools provided the water-carriage toilets which is in line with the Nigeria National policy guidelines of school toilets facilities which stipulates that schools should have water-carriage system fitted with squatting bowl to facilitate easy flushing with small quantity of water, while promoting the construction of multi-compartment Ventilated Improved Pit (VIP) latrines in rural areas.(Federal Ministry of Environment 2005) Conducive school environment promotes learning and imbibes good morals in the students. Education cannot be sought in isolation of a sound state of health, no wonder therefore that emphasize was laid on the attainment of Universal Basic Education which in turn may also serve as a synergy to reducing child mortality as declared in the Millennium Development Goals (MDGs).

## CONCLUSION

About 75.5% of the 53 schools were non-governmental of which 92.5% had toilet facilities. Much disparity was not noticed between schools with, and those without separate toilet facilities for the different sexes.

## RECOMMENDATION

Introduction of good sanitary habits and safe practices to students will make them imbibe the culture of cleanliness and safety. Students are future leaders and parents; and what they practice or learn is likely to be applied to other aspects of their lives. Therefore, School authorities should ensure the provision and sustainability of sound sanitary practices through the provision of toilet facilities in schools.

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