

Health Service in Post Primary Schools in Egor Local Government Area, Edo State

Osato Harriet OBASUYI

University of Benin, Ugbowo Campus, Nigeria

harriet.obasuyi@uniben.edu

Abstract

Health service is to be implemented under its guidelines in the school health programme of Nigeria. However, observations reveal some cases of ill health and absence due to health condition among students and teachers. The study was therefore, initiated to assess the extent of implementation of health services in terms of availability, adequate number and functionality of its components in post primary schools in Egor Local Government Area, Edo State. Five research questions and two hypotheses verified at .05 alpha level were addressed. A descriptive survey involving observation which followed documentation with a checklist was used to assess 256 post primary schools based on availability. Consequent upon available component, a sample size of 165 of the schools were involved in assessing the level of implementation based on adequate number and functionality. Results indicated that all components of health service except health officers were available in many of the schools visited. All, but health centre, were not only inadequate in number but non-functional. Consequently, it was recommended that government should make adequate number of health officers available through training and re-training to be responsible for putting policy relating to health service into action in post primary schools in Edo State.

Keywords: *Adequate number, Availability, Functionality, Health service, Implementation*

INTRODUCTION

School health service as one domain of five-point component of school health programme is aimed at preventing and treating children, teachers and people around a school community. The rationale for this is to ensure that learners and school personnel enjoy good health while living, working and passing through a school programme. Without bridging a school programme, school health service is delivered by school administrators, health, teaching and counselling personnel with simple observation and technical procedures. School health and treatment facilities as well as pre-entry and routine screening for medical and oral health, health/professional assessment, health information record, prevention of contagious ailments, nutrition aspects, observation/monitoring of the health of learners, special case service, referrals, first aid and emergency action are elements of school health service.

Poor implementation of school health service differs by study. In North India, for example, Aniruddh and Majra (2020) concluded that twenty six percent of the schools studied failed to perform medical assessment of the students and more than half of the schools had no records for health assessments. In another study conducted on private and government-owned pre-primary/primary and secondary schools in Sagamu, Ogun State, almost all ninety-one schools had no physician, 72.4% had no school health centre, 89% did not carry out screening for disability (Oyinlade, Ogunkunle & Olarewaju, 2014). Adebayo and Owoaje (2016) who posited that both urban and rural public primary schools lacked first aiders, health assistants or health nurses in school. Under such circumstances, students are most likely to be victims of diseases, wounds and emergency

It is commonplace to find learners with one or more health conditions in school under circumstances which could be linked with poor delivery of health services. Falls, injuries, headaches, feverish conditions, low body mass index, malaria, cough are sometimes found in school. Problem with BMI and the aforementioned health challenges can sometimes be likened to poor nutritional status. To attain good nutritional status, school health service is crucial. An appropriately provided school health service should not only promote health, prevent illness and identify deformities of learners but also be able to reach out with health information to parents or guardian concerning their children. The school stands in the gap to complement the efforts of the home on the health promotion of students by being a health promoting school. By not only regularly updating its capacity as a healthy place for dwelling, studying and working, the school must also be properly organized to implement health service as a potential for guaranteeing optimum health and educational success of students.

Based on the relevance of school health service in the prevention and treatment of health conditions and its positive impact on the health and educational sectors of Nigeria, the Federal Ministry of Education (FME) noted that national attempt was directed at providing health and support services such as immunization, sick bay/dispensaries, counselling and feeding services to enhance qualitative education (FME, 2006). In addition to this effort, the ministry decided to revamp the school health programme and provide a legal benchmark for its execution. These efforts are promotive of the health of school community but not comprehensive enough to revolve around all components of health service. Moreover, the measures of the ministry appear to be mere policy statement because a close observation of neighbouring schools does not indicate clear institutional functions played by other stakeholders of the implementation process. Moreover, the daily efforts of available teachers may not be adequate enough to cover for full implementation of the elements of health services. These are possibly implementation bottlenecks of health service in school.

Majority of recent studies reviewed assessed the status and implementation of health service in primary schools (Toma, Oyebode, Toma & Agaba, 2014; Olatunya, Oseni, Olaleye, Olatunya, Akani & Oyelami, 2015; Osuorah et al. 2016; Kuponiyi, Amoran &

Kuponiyi, 2016; Adaobi, Akani, Ikefuna, Tagbo, Chinawa & Chikani, 2017; Atakpo, 2020; Agu, Ossai, Ndu, Eze, Ugwunweze & Ugwu, 2021; Sanni, Airede, Anigilaji & Offiong, 2022). Only one study by Oyinlade, Ogunkunle and Olarewaju (2014) included secondary school in their study of nursery/primary health service. However, only one study in North India examined the status of school health services solely in government and individual-owned secondary schools. This is an indication, to the best of the researcher's knowledge, that there is paucity of data regarding the status of health service in post primary schools in Egor Local Government Area (LGA). Hence, the present study sought to narrow the gap by addressing the level of implementation of health service in terms of availability, adequate number and functionality of its components in post primary schools in Egor LGA of Edo State.

Research Questions

1. What is the level of implementation of health service, in terms of availability of its components?
2. What is the level of implementation of health service, in terms of adequate number of its components?
3. What is the level of implementation of health service, in terms of functionality of its components?
4. What extent is the level of implementation of health service, in terms of availability of its components, influenced by type of school?
5. What extent is the level of implementation of health service, in terms of availability of its components, influenced by location of school?

Hypotheses

1. The level of implementation of health service, in terms of availability of its components, is not significantly influenced by type of school.
2. The level of implementation of health service, in terms of availability of its components, is not significantly influenced by location of school.

Theoretical perspective

The study was based on locality development model developed by Jack Rothman in 1968. The model is one of the three models of community organizing developed by Jack Rothman. The model is hinged on the assumption that different people have to get involved in order to plan, implement and evaluate objectives that can bring about change. Five concepts contribute to the achievement of change in an organized community namely selection of local leaders, self-help, voluntary cooperation and democratic methods and formation of educational objectives. Concepts of this nature, to a large extent, bring about change and the observed change is educational success.

Social and health problems sometimes impact negatively on educational success. The relevance of educational achievement, in preventing disease and promoting the wellbeing of learners and teachers, is constantly being recognized by stakeholders. In order to promote and maintain optimum level of health for members of a school, the human

community within and outside have to be organized along a model, hence the locality development model.

The model was applied to this study by inferring:

1. That the school system is a locality consisting of social community of various groups of people including students, teachers and non-teaching members.
2. That stakeholders within and outside the school locality participate in the planning, implementation and evaluation of stated objectives for solving a problem.
3. That problem solving brings intended change.

Bearing those inferences at heart, the researcher became interested in assessing the extent of implementation of health service with regard to availability, adequate number and functionality of its components in school through the five concepts. These concepts are not mutually exclusive but can be combined or separated in no particular order of discussion.

Self-help: stakeholders within and outside the school locality discovered one factor that could undermine educational advancement, that is ill-health. A prevalent issue confronting not only students and teachers but other individuals within and outside the school. Through self-help, the problem was perhaps discovered by school locality-proven procedures, for example observation or research. Questions that could bother anyone are: what self-help efforts are available to plan, implement and assess health service objectives for the school?

Voluntary cooperation: everyone (teachers, school physician, nurse, school administrators, first aiders, nu) gets involved by working with one another to plan, execute and assess progress toward intended health promotion. Through cooperation and self-help, more human and material resources are harnessed at the local and national levels of government toward the development of the goal and objectives of health service in school. Concerns could also be: how easily are implementers willing to perform their functions in realizing group goals?

Formation of educational objectives: during the planning stage, human resources in the school locality and health sector collaborate to develop achievable short- or long-term objectives sufficient to prevent disease and injuries and promote health and wellbeing of school members and those having affiliation with the school. Questions of concern could be: are the stated objectives adequate in number to encompass all components of health service in school?

Selection of local leaders: while working with community leaders, in where the schools are locality, guidelines of implementation including institutional roles to be played by players of health service are spelt out. Governmental roles Players of implementation, including leaders within and outside school locality are carefully identified and chosen to bring outlined goal/objectives to full realization. Questions such as: how adequate in number are the selected local leaders? What capacity do the leaders have to make them function effectively as players of implementation of health service in school?

Democratic methods: realizing that stated goals and objectives are for the benefits of everyone especially those within the school locality, then the planning, execution and assessment of the objectives must also be done by them. This can only be a success if

techniques applied during each of the stage must be suggested, applied and supported by everyone. That is, procedures must be congruent with physical and psychological needs and not imposed on anyone. Point of worry could be: are procedures used to develop, implement and evaluate outlined goals/objectives useful and supportive of everyone.

METHODOLOGY

The population of the study consisted of 256 (two hundred and fifty-six) post primary schools made up of 13 public, 243 private; and 20 rural, 236 urban schools in Egor LGA Edo State (Ministry of Education, 2022). A descriptive (ex post facto) survey involving observation which followed documentation with a checklist was used to collect data. The survey technique enabled the researcher to examine what already existed as far as the components of health service is being implemented in terms of their availability, adequate number and functionality.

The checklist is an adaptation of some items from the School Health Care Services of Nigeria (FME, 2006). Items adapted from the ministry's health care services instrument were 1, 2 and 3. Details of implementation including stakeholders and Monitoring and Evaluation were excluded from the checklist. Three indicators consisting of availability, adequate number and functionality of the components of health service in school were used as basis for which the level of implementation of health service in schools was assessed. These were contained in the checklist. The checklist had two sections, A contained the availability and adequate number of the components of health service. A component was regarded as available only if more than or equal to half of its sub-components are available.

The adequate number of any available component of health service in school was assessed based on the number of sub-components assigned to it. An office, restrooms, examination, rest and waiting areas are required as part of a school health centre (FME, 2006; Gordon, 2010). Consequent upon the foregoing authorities one or more of the sub-components of health service was therefore accepted as required standard for an adequate health centre. A remark of 'adequate number and inadequate number' was provided to take a decision on a component. A component was only considered adequate number or inadequate number if more than half of the sub-components had adequate number and vice versa. Then percentage was taken based on the number of adequate/inadequate sub-components divided by total number of sub-components and multiplied by 100.

Section B, of the checklist, is the functionality guide of the components of health service. If a sub-component, in form of facility or service was able to perform a particular task which it was met for, then it was functional. The functions used in the study were outlined according to experts' inputs and literature review. Kumar (2016) provided some functions of school health team including teacher, physician, and nurse. A component was only

considered functional or non-functional if more than half of the functions of the sub-components are functional and vice versa. Then percentage was taken based on the number of yes/no functions divided by number of functions of the sub-components and multiplied by 100. Observation of the tasks was done by the researcher with assistance from the school health nurse and teachers during her weekly visits to the schools.

The checklist was validated by experts in health education including school doctor, nurse, teacher and other personnel found on ground in the schools prior to data collection. Corrections were made according to their suggestions before final copies were printed. Being a checklist, reliability was not required.

Since teaching and learning were assumed not to be distorted, an approval was sought from the Post Primary Education Board to conduct the research. In addition, consent was collected from the principals of the schools in informed consent. The cooperation of the school community including students and teachers as well as school nurse was also solicited. In order to prevent school programme from interruption, collection of data was carefully done and this spanned between February and July 2022 except the period of holiday in April.

Frequency counts and percentages were used to analyse data collected. Level of implementation was then obtained with $\geq 50\%$ meaning 'available'/'not available'; 'adequate number/inadequate number' and 'functional/non-functional'. Details of sub-components of the five components, for adequate number and functionality, that informed the level of decision (see Appendixes I and II). IBM SPSS Statistics version 21 was used to run the Chi-Square test for the hypotheses at 0.05 level of significance.

Results

Table 1: Level of implementation of health service in terms of availability of its components

Components of health service in school	Availability in frequency and percentage			Level of implementation
	Yes (%)	No (%)	Total (%)	
Health centre	165 (64.5)*	91 (35.5)	256 (100)	Available
Health officers	116 (45.2)	140 (54.8)*	256 (100)	Not available
Record of health appraisals	149 (58.1)*	107 (41.9)	256 (100)	Available
First aid/emergency box	231 (90.3)*	25 (9.7)	256 (100)	Available
Health counselling	142 (55.5)*	114 (44.5)	256 (100)	Available

Key: Availability = $\geq 50\%$

Data in Table 1 shows the level of implementation of health services in terms of availability of its components in Egor Local Government Area, Edo State. Precisely, 64.5%, 58.1%, 90.3% and 55.5% of the schools visited have health centre, record of health appraisals,

first aid/emergency box and health counselling respectively. However, 54.8% of the schools visited does not have health officers. It can be concluded that all but one of the five components of health services observed in the schools are available. While health centre, record of health appraisals, first aid/emergency box and health counselling are available, health officers are not available in all the schools visited.

Table 2: Level of implementation of health service in terms of adequate number of its components

Components of health service in school	Adequate number in frequency and percentage			Level of implementation
	Yes (%)	No (%)	Total (%)	
Health centre	97 (58.8)*	68 (41.2)	165 (100)	Adequate num.
Health officers	46 (40.0)	70 (60.0)*	116 (100)	Inadequate num.
Record of health appraisals	37 (25.0)	112 (75.0)*	149 (100)	Inadequate num.
First aid/emergency box	51 (22.2)	180 (77.8)*	231 (100)	Inadequate num.
Health counselling	62 (43.7)	80 (56.3)*	142 (100)	Inadequate num.

Key: Adequacy in number = $\geq 50\%$; num. = number

Data in Table 2 is the level of implementation of health services in terms of adequate number of its components. An overall 58.8% and 41.2% of the available health centre of the schools visited were adequate and inadequate in number respectively. In all schools visited with available health officers, 60% of them were inadequate in number. In all 149 schools, 75.0% and 25.0% had inadequate and adequate number of records of health appraisals respectively. In 231 schools, 77.8% and 22.2% had inadequate and adequate numbers of first aid/emergency box. Therefore, first aid/emergency box is inadequate in number. The 142 schools visited with available health counselling activity 56.3% and 43.7% were inadequate and adequate in number respectively. All except one of the five components of available health service checked in the schools were inadequate in number. It can, therefore, be concluded that the level of implementation of health services is inadequate in number of its components. While health officers, record of health appraisals, first aid/emergency and health counselling are inadequate, health centre is adequate in number in majority of the schools visited.

Table 3: Level of implementation of health service in terms of functionality of its components

Components of health service in school	Adequate number in frequency and percentage			Level of implementation
	Yes (%)	No (%)	Total (%)	
Health centre	43 (25.9)	122 (74.1)*	165 (100)	Non-functional
Health officers	26 (22.2)	90 (77.8)*	116 (100)	Non-functional
Record of health appraisals	37 (25.0)	112 (75.0)*	149 (100)	Non-functional
First aid/emergency box	51 (18.2)	180 (81.8)*	231 (100)	Non-functional

Health counselling	95 (66.7)*	47 (33.3)	142 (100)	Functional
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Key: functionality = ≥50%

Data in Table 3 is the level of implementation of health services in terms of functionality of its components. Majority of the health centre of the schools visited was non-functional depicting 74.1% while only 25.9% of them was functional. In 77.8% and 22.2% of the schools, non-functional and functional health officers respectively were observed. Non-functional record of health appraisals was observed in majority of the schools. Precisely, 75.0% and 25.0% of them were non-functional and functional respectively in terms of the record. It was observed that first aid/emergency box was non-functional in 81.8% of the schools. Health counselling was functional in all schools with 66.7% being able to offer the service and 33.3% being non-functional.

Generally, all but one of the five components of health services observed in majority of the schools visited were non-functional. It can therefore be concluded that the level of implementation of health services in terms of functionality of its components is non-functional. While health centre, health officers, record of health appraisals, first aid/emergency and health counselling are non-functional, health centre is functional in majority of the schools visited.

Table 4: Crosstabs of Chi-square trend of association of the level of implementation of health services in terms of availability of its components by type of school

Type of school	Yes	No	Total	Pearson Chi-Square	df	Exact sig. (2-sided)
	Fo (Fe)	Fo (Fe)				
Public	5 (4.5)	6 (6.5)	11 (11.0)	.767	1	.762
Private	63 (63.5)	91 (90.5)	154 (154.0)			
Total	68	97	165			

Key: Fo = observed frequency, Fe = expected frequency

Data in Table 4 is the crosstabulation of the chi-square test of the level of implementation of health services in terms of availability of its components between public and private schools. A chi-square value of .767, a degree of freedom of 1 and level of significance of .762 was obtained. The null hypothesis which states that 'the level of implementation of health services in terms of availability of its components is not significantly influenced by type of school is accepted. Thus, the level of implementation of health services in terms of availability of its components is not significantly influenced by type of school.

Table 5: Crosstabs of Chi-square trend of association of the level of implementation of health services in terms of availability of its components by location of school

Location of school	Yes Fo (Fe)	No Fo (Fe)	Total	Pearson Chi-Square	df	Exact sig. (2-sided)
Rural	7 (7.6)	9 (8.4)	16 (16.0)	.766	1	.799
Urban	71 (70.4)	78 (78.6)	149 (149.0)			
Total	78	87	165			

Key: *Fo* = observed frequency, *Fe* = expected frequency

Data in Table 5 represents the crosstabulation of chi-square test of the level of implementation of health services in terms of availability of its components between rural and urban schools. A chi-square value of .766, a degree of freedom of 1 and level of significance of .799 was obtained. The null hypothesis which states that the level of implementation of health services in terms of availability of its components is not significantly influenced by location of school is accepted. Thus, the level of implementation of health services in terms of availability of its components is not significantly influenced by location of school.

DISCUSSION OF FINDINGS

Findings revealed that while health centre, record of health appraisals, first aid/emergency box and health counselling service are available, health officers are not available in majority of the schools visited in Egor Local Government Area, Edo State. In secondary schools where health officers are not available to provide health services when needed, quality of implementation is somewhat undermined. This result is consistent with the finding of Oyinlade, Ogunkunle and Olarewaju (2014) that there was no physician in almost all ninety-one private and government-owned pre-primary/primary and secondary schools in Sagamu, Ogun State. For the availability of first aid/emergency box, finding is consistent with Oyinlade et al. (2014) that ninety-six percent of the schools had first aid box.

While health officers, record of health appraisals, first aid/emergency box and health counselling service are inadequate, health centre is adequate in number in majority of the schools visited. The present result of 'inadequate record of health appraisals' is consistent with research conducted in North India that more than half of the schools had no records for health assessments (Aniruddh & Maira, 2020). It is also consistent with another study conducted on private and government-owned pre-primary/primary and secondary schools in Sagamu, Ogun State that few teachers were trained for health (Oyinlade, Ogunkunle & Olarewaju, 2014). Finding is inconsistent with Oyinlade and others that 72.4% of the schools had no school health centre.

While health centre, health officers, record of health appraisals, first aid/emergency box and health counselling service are non-functional, health centre is functional in many of the schools visited. For non-functional screening exercise, result is in consonance with studies conducted in North India by Aniruddh and Majra (2020) and in Nigeria by Oyinlade, Ogunkunle and Olarewaju (2014) that twenty six percent and ninety eight percent respectively of the schools failed to perform medical assessment of the students. The present finding, in the one hand, is not in line with that of Oyinlade, Ogunkunle, and Olarewaju (2014) who documented that many of the schools did record health information and in the other corroborates their result that 89% of the schools did not carry out screening for disability. A functional health service begins with teachers who are the immediate custodians of the students. Before now, inspection of nails and teeth on assembly ground was one crucial responsibility of teachers. No wonder Ade, Vallepalli, Nagara and Rao (2020) noted that inspection and occasional assessment were carried by teachers.

The level of implementation of health services in terms of availability of its components is not significantly influenced by type of school. The type of school, by ownership, according to the researcher's observation does not largely determine the manner in which available health services will be implemented. Result is consistent with recent evidence by Jiya et al (2020) that the standard set upon which they accepted to determine health services in Sokoto Town was not significantly different between public and private schools. The present result is, however, inconsistent with authorities that implementation of school health service was not adequate in which procedure to control infectious diseases was largely by referring learners home and this was significantly higher in private schools and even poorer in government-owned schools especially in Illesa East Local Government Area, Osun State (Olatunya, Oseni, Olaloye, Olatunya, Akani & Oyelami, 2015; Jiya et al. 2020).

The level of implementation of health services in terms of availability of its components is not significantly influenced by location of school. Irrespective of where a secondary school is located, the researcher found out that the extent of implementation of health services is basically similar. In all rural and urban post primary schools some health officers including doctors, nurses/health sister, nutritionists are sometimes not available. The present result corroborated that of Adebayo and Owoaje (2016) who posited that both urban and rural public primary schools lacked first aiders, health assistants or health nurses in school.

CONCLUSION

It can be concluded that all components of health service except health officers are available in many of the schools visited. All the components, but health centre, are non-functional and inadequate in number. The level of implementation of health services in terms of availability of its components is not significantly influenced by type of school and location of school

RECOMMENDATIONS

It was recommended based on findings that:

1. Government should make health officers available through train and re-train to be responsible for putting policy relating to health service into action in post primary schools in Edo State.
2. In order to have adequate number of health officers, record of health appraisals, first aid/emergency box and health counselling service, the government, school administrators should provide the needed capacity and appropriate record and counselling service necessary to promote health of students, teachers and other school personnel.
3. For not fully functional health centre, health officers, record of health appraisals, first aid/emergency box and health counselling service, teachers and other players of health service in school should perform the functions for which they are duly qualified.

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Appendix I

Level of implementation of health service in terms of adequate number of its components in Egor Local Government Area, Edo State

Components of health service in school	Adequate number in frequency and percentage			Level of implementation
	Yes (%)	No (%)	Total (%)	
Health centre	97 (58.8)*	68 (41.2)	165 (100)	Adequate num.
Waiting room	114 (69.2)*	51 (30.8)	165 (100)	Adequate num.
Drug room	95 (57.6)*	70 (42.4)	165 (100)	Adequate num.
Diagnosis room	75 (45.5))	90 (54.5)	165 (100)	Inadequate num.
Observation/treatment room	78 (47.3)	87 (52.3)	165 (100)	Inadequate num.
Thermometre	110 (66.7)*	55 (33.3)	165 (100)	Adequate num.
Weight scale	130 (78.8)*	55 (21.2)	165 (100)	Adequate num.
Height scale	59 (35.8)	106 (64.2)	165 (100)	Inadequate num.
Toilet/bathroom	136 (82.4)*	29 (17.6)	165 (100)	Adequate num.
Refrigerator	93 (56.4)*	72 (43.6)	165 (100)	Adequate num.
Regular drugs/consumables	87 (52.7)*	78 (47.3)	165 (100)	Adequate num.
Constant power supply	50 (30.3)	115 (69.7)	165 (100)	Inadequate num.
Sterilization facility	42 (25.5)	123 (74.5)	165 (100)	Inadequate num.
Stationeries for record	98 (59.4)*	67 (40.6)	165 (100)	Adequate num.
Waste bins	103 (62.4)*	62 (37.6)	165 (100)	Adequate num.
Vehicle for referrals	33 (20.0)	132 (80.0)	165 (100)	Inadequate num.
Computer	51 (30.9)	114 (69.1)	165 (100)	Inadequate num.
Hand wash facility	150 (90.9)*	15 (9.1)	165 (100)	Adequate num.
Health officers	46 (40.0)	70 (60.0)*	116 (100)	Inadequate num.
Doctor	64 (55.2)	52 (44.8)	116 (100)	Adequate num.
Nurse/midwife/health sister	77 (66.4)	39 (33.6)	116 (100)	Adequate num.
Health educator	21 (18.1)	95 (81.9)*	116 (100)	Inadequate num.

Level of implementation of health service in terms of adequate number of its components in Egor Local Government Area, Edo State (contd.)

Components of health service in school	Adequate number in frequency and percentage			Level of implementation
	Yes (%)	No (%)	Total (%)	
Trained first aider/teachers	27 (23.3)	89 (76.7)*	116 (100)	Inadequate num.
Trained first aider/teachers	27 (23.3)	89 (76.7)*	116 (100)	Inadequate num.
Record of health appraisals:	37 (25.0)	112 (75.0)*	149 (100)	Inadequate num.
Prior entry screening of dental/medical cases including history, height, weight, vision, hearing, occasional vaccination, laboratory tests and mental health	120 (80.5)	29 (19.5)	149 (100)	Adequate num.
Routine screening of medical/oral health for students and staffers	65 (43.6)	84 (56.4)*	149 (100)	Inadequate num.
Teacher's observation	45 (30.2)	104 (69.8)*	149 (100)	Inadequate num.

Tests of screening for identifying growth/disability/handicap problems	28 (18.8)	121 (81.2)*	149 (100)	Inadequate num.
Referrals to hospital supervision of disabled/handicapped	54 (36.2)	95 (63.8)*	149 (100)	Inadequate num.
Student health record containing results of one or more sub-components	30 (20.1)	119 (79.9)*	149 (100)	Inadequate num.
Vendor screening	90 (60.4)	59 (39.6)	149 (100)	Adequate num.
First aid/emergency box	32 (21.5)	78.5)*	149 (100)	Inadequate num.
Plaster	51 (22.2)	180 (77.8)*	231 (100)	Inadequate num.
Bandage	112 (48.5)	119 (51.5)*	231 (100)	Inadequate num.
Scissors	96 (41.6)	135 (58.4)*	231 (100)	Inadequate num.
Cotton wool	137 (59.3)	94 (40.7)	231 (100)	Adequate num.
	178 (77.1)	53 (22.9)	231 (100)	Adequate num.

Level of implementation of health service in terms of adequate number of its components in Egor Local Government Area, Edo State (contd.)

Components of health service in school	Adequate number in frequency and percentage			Level of implementation
	Yes (%)	No (%)	Total (%)	
Paracetamol	75 (32.5)	156 (67.5)*	231 (100)	Inadequate num.
Gauze	63 (27.3)	168 (72.7)*	231 (100)	Inadequate num.
Gentian	71 (30.7)	160 (69.3)*	231 (100)	Inadequate num.
Glucose	28 (12.1)	203 (87.9)*	231 (100)	Inadequate num.
First aid service record	59 (25.5)	172 (74.5)*	231 (100)	Inadequate num.
Health counselling	62 (43.7)	80 (56.3)*	142 (100)	Inadequate num.
Health counselling room	64 (45.1)	78 (54.9)*	142 (100)	Inadequate num.
Health counsellors	60 (42.3)	82 (57.7)*	142 (100)	Inadequate num.

Key: Adequacy in number = $\geq 50\%$; num. = number

Appendix II

Level of implementation of health service in terms of functionality of its components in Egor Local Government Area, Edo State

Components of health service in school	Function	Functionality in frequency and percentage			
		Yes (%)	No (%)	Total (%)	Level of implementation
Health centre		43 (25.9)	122 (74.1)*	165 (100)	Non-functional
Waiting room	Accommodates thirty to fifty people	48 (29.1)	117 (70.9)*	165 (100)	Non-functional
Drug room	Contains: regular drugs for endemic diseases	63 (38.2)	102 (61.8)*	165 (100)	Non-functional
	Deworm tabs	17 (10.3)	148 (89.7)*	165 (100)	Non-functional
	Consumables	99 (60.0)	66 (40.0)	165 (100)	Functional
Diagnosis room	confidential	27 (16.4)	138 (83.6)*	165 (100)	Non-functional
	Accommodates a doctor, patient and/or nurse	106 (64.2)	59 (35.8)	165 (100)	Functional
Observation/treatment room	Contains at least two beds	65 (39.4)	100 (60.6)*	165 (100)	Non-functional
Thermometer	capacity to read temperature of students/patients correctly	74 (44.8)	91 (55.2)*	165 (100)	Non-functional
Weight scale	capacity to read the weight, in kilogrammes, of student/patient before diagnosis/treatment	85 (51.5)	80 (48.5)	165 (100)	Functional
Height scale	capacity to read the height, in metres/centimetres, of anyone before diagnosis/treatment	33 (20.0)	132 (80.0)*	165 (100)	Non-functional
Toilet/bathroom	Has constant water supply	96 (58.2)	69 (41.8)	165 (100)	Functional
	Always clean	55 (33.3)	110 (66.7)*	165 (100)	Non-functional
	Has disinfectant	60 (36.4)	105 (63.6)*	165 (100)	Non-functional

Level of implementation of health service in terms of functionality of its components in Egor Local Government Area, Edo State (contd.)

Components of health service in school	Function	Functionality in frequency and percentage			
		Yes (%)	No (%)	Total (%)	Level of implementation
Refrigerator	Constantly working with electric power	49 (29.7)	116 (70.3)*	165 (100)	Non-functional

	Contains vaccines	45 (27.3)	120 (72.7)*	165 (100)	Non-functional
Regular drugs/consumables	Unexpired drugs	35 (21.2)	130 (78.8)*	165 (100)	Non-functional
	Not near exhaustion	14 (8.5)	151 (91.5)*	165 (100)	Non-functional
Constant power supply	Able to kick start and power all electronic devices/borehole	42 (25.5)	123 (74.5)*	165 (100)	Non-functional
Sterilization facility	Able to kill pathogens in apparatuses/ instruments/tools	13 (7.9)	152 (92.1)*	165 (100)	Non-functional
	Works with electricity	90 (54.5)	75 (45.5)	165 (100)	Functional
Stationeries for record	Plane sheets, receipts, envelopes, laboratory forms, referral forms, pins and/or stapler	60 (36.4)	105 (63.6)*	165 (100)	Non-functional
Waste bins	Has a lid	98 (59.4)	67 (40.6)	165 (100)	Functional
	Emptied daily	40 (24.2)	125 (75.8)*	165 (100)	Non-functional
Vehicle for referrals	Able to convey victims/referred cases to nearby secondary health facility	9 (5.5)	156 (94.5)*	165 (100)	Non-functional
Computer	Capable of saving health information of patients	15 (9.1)	150 (90.9)*	165 (100)	Non-functional
	Processing health data	14 (8.5)	151 (91.5)*	165 (100)	Non-functional
Hand wash facility	capable of making hands to be thoroughly washed	148 (89.7)	17 (10.3)	165 (100)	Functional
Health officers		26 (22.2)	90 (77.8)*	116 (100)	Non-functional

Level of implementation of health service in terms of functionality of its components in Egor Local Government Area, Edo State (contd.)

Components of health service in school	Function	Functionality in frequency and percentage			Level of implementation
		Yes (%)	No (%)	Total (%)	
Doctor	provides professional treatment or referral services	74 (64.2)	42 (35.8)	116 (100)	Functional
	provides health information necessary to prevent diseases	31 (26.7)	85 (73.3)*	116 (100)	Non-functional
Nurse/midwife/health sister	provides dispensary/administration of drugs	29 (24.8)	87 (75.2)*	116 (100)	Non-functional
	nurses wounds and injuries	81 (69.8)	35 (30.2)	116 (100)	Functional
Health educator	Provides health information necessary to prevent diseases	4 (3.6)	112 (96.4)*	116 (100)	Non-functional
Trained first aider/teachers	Provides first-hand attention to save life, reduce pains and/or conveyance to hospital	40 (34.5)	76 (65.5)*	116 (100)	Non-functional

Nutritionists	Procures right ingredients	11 (9.7)	105 (90.3)*	116 (100)	Non-functional
	Prepares nutritious meals	55 (47.4)	61 (52.6)*	116 (100)	Non-functional
	Provision of Vitamin A supplements	20 (17.2)	96 (82.8)*	116 (100)	Non-functional
Record of health appraisals:		37 (25.0)	112 (75.0)*	149 (100)	Non-functional
Prior entry screening of dental/medical cases including history, height, weight, vision, hearing, occasional vaccination, laboratory tests and mental health	contains information of students at initial coming into school on: physically examined cases, clinically examined cases, emotionally examined cases	66 (44.2)	83 (55.8)*	149 (100)	Non-functional

Level of implementation of health service in terms of functionality of its components in Egor Local Government Area, Edo State (contd.)

Components of health service in school	Function	Functionality in frequency and percentage			
		Yes (%)	No (%)	Total (%)	Level of implementation
Routine screening of medical/oral health for students and staffers	Result of test for visual acuity with Snellen chart	33 (22.4)	116 (77.6)*	149 (100)	Non-functional
	Test for hearing acuity with an audiometre	8 (5.4)	108 (94.6)*	149 (100)	Non-functional
	Test for oral health by dentist	14 (9.4)	102 (90.6)*	149 (100)	Non-functional
	Provision of deworm tabs	23 (15.4)	126 (84.6)*	149 (100)	Non-functional
	Occasional immunization/booster doses	10 (6.7)	139 (93.3)*	149 (100)	Non-functional
Teacher's observation	Inspection to assess cleanliness	87 (58.2)	62 (41.8)	149 (100)	Functional
	Identify eye, ear, oral or skin problems	92 (61.7)	57 (38.3)	149 (100)	Functional
	Measure height and weight	26 (17.4)	123 (82.6)*	149 (100)	Non-functional
	Make referrals to health centre about health problems	107 (71.8)	42 (29.2)	149 (100)	Functional
	Sends height and weight measurements to health centre	18 (12.1)	131 (87.9)*	149 (100)	Non-functional
Tests of screening for identifying growth/disability/handicap problem		17 (11.5)	132 (88.5)*	149 (100)	Non-functional
Referrals to hospital		9 (6.1)	140 (93.9)*	149 (100)	Non-functional
Supervision of disabled/handicapped		18 (12.1)	131 (87.9)*	149 (100)	Non-functional

Level of implementation of health service in terms of functionality of its components in Egor Local Government Area, Edo State (contd.)

Components of health service in school	Function	Functionality in frequency and percentage			Level of implementation
		Yes (%)	No (%)	Total (%)	
Student health record containing results of one or more sub-components		82 (55.2)	67 (44.8)	149 (100)	Functional
Vendor screening	contains information of food vendors including medical report of health status, vending site and routine medical examination	31 (20.6)	118 (79.4)*	149 (100)	Non-functional
First aid/emergency box		51 (18.2)	180 (81.8)*	231 (100)	Non-functional
Plaster	capable of meeting all initial and emergency cases of anyone in school before entry into health centre	78 (33.9)	153 (66.1)*	231 (100)	Non-functional
Bandage	Same as plaster	67 (29.1)	164 (70.9)*	231 (100)	Non-functional
Scissors	Same as plaster	157 (67.9)	74 (32.1)	231 (100)	Functional
Cotton wool	Same as plaster	147 (63.6)	84 (36.4)	231 (100)	Functional
Paracetamol	Same as plaster	211 (91.5)*	20 (8.5)	231 (100)	Functional
Gauze	Same as plaster	10 (4.2)	221 (95.8)*	231 (100)	Non-functional
Gentian	Same as plaster	15 (6.7)	216 (93.3)*	231 (100)	Non-functional
Glucose	Same as plaster	25 (10.9)	206 (89.1)*	231 (100)	Non-functional
First aid service record	Contains first aid service provided	45 (19.4)	186 (80.6)*	231 (100)	Non-functional
	Notification of guardian/parents	8 (3.5)	223 (96.5)*	231 (100)	Non-functional

Level of implementation of health service in terms of functionality of its components in Egor Local Government Area, Edo State (contd.)

Components of health service in school	Function	Functionality in frequency and percentage		
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		Yes (%)	No (%)	Total (%)	Level of implementation
	Method of taken victim home or to health facility	7 (3.0)	224 (97.0)*	231 (100)	Non-functional
Health counselling		95 (66.7)*	47 (33.3)	142 (100)	Functional
Health counselling room	Able to accommodates health counsellor and counselee for confidential one-on-one or group counselling	46 (32.7)	96 (67.3)*	142 (100)	Non-functional
Health counsellors	capable of keeping confidential records on health status of anyone	83 (58.8)*	59 (41.2)	142 (100)	Functional
	At least yearly health counselling	40 (56.8)*	102 (43.2)	142 (100)	Functional

Key: functionality = $\geq 50\%$