

## Assessment of health screening and health education programmes for workers of waste management agency in Rivers State

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### Abstract

This study assessed health screening and health education activities provided by Rivers State Waste Management Agency (RIWAMA) for health promotion of their workers. The descriptive survey design was used. Proportionate sampling technique was used to select 300 respondents from total population of 600 workers of the Rivers State Waste Management Agency, representing 50% of workers. A self-structured questionnaire with 27 items was validated by experts and 0.83 reliability coefficient value was obtained using Cronbach alpha. Two research questions were answered and one hypothesis was analyzed and tested. The data were analyzed using mean and standard deviation for research questions, simple percentage for demographic variables and ANOVA statistics for the hypotheses. Results on assessment of health screening and health education activities for workers of Waste Management Agency in Rivers State showed that the health education activities provided by RIWAMA for its workers was very well in place while the health promotion activities like health screening was not in place. The result also showed that age had no significant difference on assessment of health screening and health education activities provided by Rivers State Waste Management Agency for their workers. Therefore, it was recommended among others that the Agency should provide effective health promotion policies and programme that will improve the health of their workers.

**Keywords:** assessment, health screening, health education, waste management

### Introduction

Waste management is a significant strategic issue for organizations or firms to consider and implement in order to attain higher corporate profits (Rudolph-Ray and Seetharaman, 2015) <sup>[11]</sup>. Waste management alludes to a state by which waste are generated, transported and processed before disposal of any remaining residues (Giust, 2009; Demirbas, 2011). Deroiste (2016) <sup>[4]</sup> maintained that workers in the waste management sector are faced with numerous risks such as “manual handling of waste (manipulating waste), working postures (standing), vibrations (driving vehicles, work equipment), chemical substances, biological agents, work organisation (pace of work, job control), and mechanical hazards (cuts, bruises)”. Derisory management of waste hypothetically exposes waste management authority workers (waste care workers, waste handlers, etc.), individuals and community at large to infection, toxic effects and injuries and risk thereby polluting the environment (Nwachukwu, Orji and Ugbogu, 2013) <sup>[10]</sup>.

Health screening is a rapidly growing and widely accepted practice in the health care sector. In discussing health screening programmes, it is important to note that it is a major component of early detection of disease and an avenue for screening and educating the participants to change their lifestyles in order to promote their wellbeing (Holland and Stewart, 2005), while at their workplaces. In order to achieve wellness, there is need for health promotion through health education programmes as this will help motivate the workers to stay healthy. Therefore, it becomes imperative to ascertain in this study the provisions made by the Waste Management Agency in Rivers State for her workers in relation to health screening considering the

danger they faced in discharging their duties.

Health, according to Merriam-Webster Dictionary (2010), refers to the conduct of being sound in body, mind, spirit, freedom from physical disease or pain, the general condition of the body and flourishing condition. Health not only alludes to the objective interpretation of the absence of disease but also denoting a subjective and holistic view, adding mental resources and social well-being to physical health (Groene and Jorgensen, 2005) <sup>[5]</sup>. Pindar as cited in Svalastog, Donev, Kristoffersen, and Gajovic (2017) <sup>[12]</sup> defined health as the “harmonious functioning of the organs, emphasizing the physical dimension of health, the physical body and the overall functionality, accompanied by the feeling of comfort and absence of pain”. Therefore, it is important to educate the waste management workers on how to stay healthy. Since health education is a process with intellectual, psychological and social dimensions relating to activities which increase the abilities of people to make informed decisions affecting their personal wellbeing, the promotion of good health as well as the reduction in sickness rate among the workers becomes imperative.

Michael-Agwuoke (2012) described waste as residual materials generated through human activities which can be reused or recovered as a resource, recycled into material production. Ayodele-Oni (2007) <sup>[2]</sup> stated that waste management is the selection and application of suitable strategies, activities and technologies to achieve specific waste management goals and objectives which is maintaining a clean and healthy environment.

Assessment is a step by step process aimed at improving programmes and services that will produce a positive effect. It also consists of criteria and standards for quality gathering and interpretation of evidences as regards how the activities

are being carried out. In this case, the activities referred has to do with health screening and health education of waste management workers in Rivers State by the Agency. Waste workers who are always on the frontline are exposed to all kinds of health hazards and as such the Agency responsible for waste management are expected to provide necessary facilities that will help in protecting these workers. It is based on this premise that this study assessed the health screening and health education activities provided by Rivers State Waste Management Agency for their workers in Rivers State.

**Statement of the Problem**

Most of the waste management authority workers are exposed to various health hazards due to their job requirements. They lack adequate training in respect of dealing or handling waste management facilities and equipment, due to technological change or control. However, it is the duty of the Waste Management Agency to provide the necessary facilities and equipment for their workers. It is assumed that Health screening and Health education of workers in this regard becomes the sole responsibility of the Agency. Based on this premise, this study assessed health screening and health education activities provided by Waste Management Agency for workers in Rivers State.

**Research Questions**

The following research questions were answered in this study

1. What are the health screening activities provided for periodic medical examination by Rivers State waste management authority?
2. What are the health education activities provided by Rivers State waste management authority for the health promotion of its workers?

**Hypothesis**

The hypothesis below was tested at 0.05 level of significance:

There is no significant difference in the assessment of health promotion activities provided for the waste management workers based on age

**Methods**

The study adopted the descriptive survey research design. The population of the study consisted of 600 Rivers State Waste Management Agency workers (RIWAMA, 2019). The sample size for the study was 300 waste management agency workers selected using proportionate sampling technique. Self- Structured questionnaire and observational checklist were used to generate data for the study from the respondents. The questionnaire comprised two sections (A and B) on modified 4-point Likert scale of Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD). The reliability of the instrument was determined using Cronbach Alpha with a reliability index of 0.83. 93% of the 300 copies of questionnaire distributed were used for the data analysis. Retrieved copies of the questionnaire were collated, coded and analyzed using descriptive statistics of Mean and Standard Deviation to answer the research questions and ANOVA was used to test the hypotheses. A criterion mean of 2.50 (4+3+2+1=10 divided by 4= 2.50) was used to guide the decision for the items in the variables. Percentage was also used to analyze the demographic data of the respondents.

**Result and Discussion**

**Research Question 1:** What are the health screening activities provided for periodic medical examination by Rivers State Waste Management Agency?

**Table 1:** Analysis of responses on health screening activities provided for periodic medical examination by Rivers State Waste Management Agency for its workers.

S/N	Items	X	SD	Decision
1	The waste management authority organizes pre-screening and post-screening activities for their workers	2.09	0.98	Disagreed
2	The waste management authority provides health centre for periodic health assessment and screening of workers	1.95	0.93	Disagreed
3	There are facilities and equipment for regular medical check-up of workers	1.89	0.85	Disagreed
	Grand Mean	1.97	0.93	Disagreed

Table 1 revealed that the analysis of responses on the health screening activities provided by RIWAMA for its workers. The result showed that the health screening activities were not provided for workers by RIWAMA as the grand mean  $1.97 \pm 0.93$  is less than the criterion mean of 2.5. The health screening activities include: pre-screening and post screening activities ( $x= 2.09$ ,  $SD= 0.98$ ), health centre for periodic health assessment and screening of workers ( $x=$

$1.95$ ,  $SD = 0.93$ ) and facilities and equipment for regular medical check-up for workers ( $x= 1.89$ ,  $SD=0.85$ ). Majority disagreed that RIWAMA has health screening activities for their workers.

**Research Question 2:** What are the health education activities provided by Rivers State Waste Management Authority for the health promotion of its workers?

**Table 2:** Mean and Standard deviation on the health education activities provided by RIWAMA for the health promotion of its workers

S/N	Items	X	SD	Decision
4	The organization organizes health seminars for her workers on weekly or monthly basis about the importance of periodic health screening	1.95	1.04	Disagreed
5	There are health activities aimed at creating awareness on hazards related to their work	2.99	0.92	Agreed
6	Health educators are invited by the organization to sensitize her workers on the importance of physical activity	2.87	0.99	Agreed
7	There is provision of periodic health and safety training of their workers on the need to use their personal protective	2.91	0.99	Agreed
8	equipment at work to avoid accident	2.05	1.05	Disagreed
9	The organization provides effective health communication methods in disseminating health information on stress	2.06	0.99	Disagreed

	management at work			
	The organization provides health educators to sensitize the workers on nutrition education in relation to age, type of work and health status			
	Grand Mean	2.52	0.99	Agreed

Table 2 indicates the analysis of responses on the health education activities provided by RIWAMA for its workers. The result showed that the health education activities were provided for workers by RIWAMA as the grand mean  $2.52 \pm 0.99$  is greater than the criterion mean of 2.50. The safety activities include: weekly/monthly periodic screening ( $x=1.95, SD=1.04$ ), awareness on hazards ( $x=2.99, SD=0.92$ ) health education on the importance of physical activity ( $x=2.87, SD=0.99$ ) safety training on the use of personal

protective equipment ( $x=2.91, SD=0.99$ ) effective health communication ( $x=2.05, SD=1.05$ ) nutrition education ( $x=2.06, SD=0.99$ ). Majority disagreed that RIWAMA has health education activities for their workers.

**Test of Hypotheses**

**Hypothesis 1:** There is no significant difference in the health promotion activities provided for the waste management workers based on age.

**Table 3:** Cross tabulation of the responses of the respondents based on age

	Health promotion activities for waste management workers				Total
	SA	A	D	SD	
age distribution of respondents	3	9	20	4	36
	5	17	30	10	62
	8	23	53	15	99
	7	20	44	12	83
Total	41	23	69	147	280

**Table 4:** One-way Analysis of Variance (ANOVA) showing the difference in the mean rating of health promotion activities provided for the waste management workers based on age.

	Sum of Squares	Df	Mean Square	Fcal	Fcrit	Sig.	Decision
Between Groups	2.82692	3	1.28672	1.35154	3.9	0.21672	Accepted
Within Groups	262.615	276	0.95204				
Total	265.4419	279					

**Decision**

The table above shows the summary of the one-way ANOVA analysis of the no significant difference in the mean rating the respondents' responses to the health promotion programme provided for waste management workers in Rivers state, the result disclosed that the mean square between the group to be 1.28672, mean square within group is 0.95204, With degree of freedom of 279, the Fcal value is 1.35154 while Fcrit is 3.9 and the sig value of 0.21672. Since the  $f_{cal}$  is less than the  $F_{crit}$  and the sig value are greater than the alpha value of 0.05, the null hypothesis was accepted. This implies that there is no significant difference in the mean rating of the respondents' opinions based on age.

Result of research question one showed that the respondents disagreed with the provision of health screening activities by Rivers State Waste Management Agency. This finding contradicts that of Adamu, Yusu, Inalegwu, Sufi and Adamu (2018) [1] which found out that periodic medical check-up was important for the workers although majority of the workers practice self-medication with various forms of antimalarial, antibiotics and analgesics. The findings also revealed fear is one of the factors preventing workers for going for voluntary free medical checkup. The result of research question two revealed that health education activities are partially provided for the RIWAMA workers in Rivers State. In view of this, the finding supports that of Mesfin, Worku and Gizaw (2014) [8] who stated that workers had a positive attitude to healthcare and were knowledgeable on health care waste segregation as a result of health education programmes mounted by the Agency. Furthermore, the findings revealed that workers were aware

of the hazards inherent in non-use of personal protective equipment.

**Conclusion**

Based on the findings, it was concluded that the health screening and health education activities provided by the Rivers State Waste Management Agency for their workers were considerably poor. It was also concluded that there was no significant difference in the health promotion provided by RIWAMA for their workers based on age therefore the null hypothesis was accepted.

**Recommendations**

Based on the findings of this study, the following recommendations were made:

1. There should be regular training and seminar organized by Rivers State Waste Management Agency to inform and educate the workers on the importance of health screening and health education.
2. Rivers State Waste Management Agency should provide the necessary facilities for health screening of workers and employ professionals to educate their workers on health issues.

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