

Analysis Of Notifiable Disease Reported In Adamawa State, Nigeria

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Abstract: This research work aimed at analysing the various notifiable diseases reported in Adamawa State. To find out the most common disease notified. The data were secondary data extracted from reported cases of notifiable diseases across the twenty one local government areas of the State between 2008 and 2011. The total number of cases reported was 1085304. The findings revealed that, Malaria ranks the top of notifiable diseases with total of 85.5% and Trachoma is the least number of occurrences with total of 0.0008%. Also it was observed that, cholera is the highest in term of spread and was in comparison with other notifiable diseases reported to be widely distributed across the State while malaria which was the most prevalence was endemic in some particular parts of the State. The study recommends that, the health care personnel must be adequately trained to identify the disease and notify the higher authorities for prompt response.

Keywords: Infectious disease, Notification, Mortality, Morbidity

1.0 INTRODUCTION

A notifiable disease is any disease that is required by law to be reported to government authorities [2]. These diseases comprise of a group of communicable diseases that are a significant burden to health systems across the globe [5]. Examples of these diseases include among others: Cholera, Cryptosporidiosis, Cyclosporiasis, Giardiasis, Hepatitis A, Legionellosis, Malaria, Salmonellosis, Shigellosis, Typhoid Fever, Vibriosis, Yellow Fever [4]. Disease outbreaks are usually caused by an infection, transmitted through person-to-person contact, animal-to-person contact, or from the environment or other media. Outbreaks may also occur following exposure to chemicals or to radioactive materials. For example, Mina- Mata disease is caused by exposure to mercury. Occasionally the cause of an outbreak is unknown, even after thorough investigation [6]. Poverty and overcrowding are core to the public health causes of many of the conditions. Many of the conditions cause significant morbidity and an identifiable mortality, and communities place a strong emphasis on monitoring and addressing the causes [5]. Many of these conditions affect developing countries at a greater rate [8]. The disease and conditions vary from country to country, varies between different regions and also from time to time. The collation of information allows the authorities to monitor the disease, and provides early warning of possible outbreaks. Notifiable diseases are to be reported because of their infective nature, severity or frequency of occurrence. A disease like small pox which was once considered to be endemic, which needed notification earlier is almost obsolete now, however any one case would result in rapid spread to house-hold contacts, then end up in an out-break and epidemic [2].

Early detection of impending outbreaks, followed by a rapid response is the cornerstone of controlling a communicable disease, and is underpinning the importance of collecting real-time, complete and accurate data with analysis and timely dissemination [3]. Hence this study seeks to analyse the various diseases reported in Adamawa State. To find out the most common disease notified under the study period.

2.0 METHODS

2.1 Study Area

The area of study is Adamawa State located in the North Eastern part to Nigeria, which was carved out of the former Gongola State on the 17th August 1991, with headquarters in Yola. It is bordered by Borno and Yobe State in the North, Gombe State in the West, Taraba State in the South and the Republic of Cameroun from the East (along Nigerian international border). It lies between latitude 8° N and 11° and longitude 11.5° and 13.5°E. It covers a land mass of 39,742.12 square Kilometres that is about 4.4% of the land area of Nigeria. It has a population of 3,168,101 based on the 2006 census. The state has 21 local Government areas and 50 State Development Areas (Adamawa State Government House Dairy, 2014).

2.2 Study Population

The study population covers 3,168,101 people that included cases from all notification centres across twenty one Local Government Areas in Adamawa State.

2.3 Source of Data

The data were secondary data extracted from reported cases of notifiable diseases across the twenty one Local Government Areas [1].

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3.0 RESULTS

Table 3.1: Year-Wise Distribution of Reported Notifiable Diseases in Adamawa State

Disease	2008	2009	2010	2011	TOTAL
AIDS	605(2.8%)	7656(35.4%)	7305(33.7%)	6088(28.1%)	21654
Tuberculosis	946(2.5%)	12392(33.3%)	12775(34.3%)	11113(29.9%)	37226
Gonorrhoea	1724(34.5%)	1102(22.1%)	1258(25.2%)	911(18.2%)	4995
Cholera	968(11.5%)	4087(48.7%)	3090(36.9%)	240(2.9%)	8385
Malaria	267778(28.9%)	240459(25.9%)	292505(31.5%)	127228(13.7%)	927970
Syphilis	245(12.4%)	867(43.5%)	596(30.1%)	270(13.7%)	1978
Pneumonia	13918(20.8%)	17081(25.6%)	23861(35.7%)	11949(17.9%)	66809
Measles	2786(31.0%)	2359(26.2%)	2782(30.9%)	1070(11.9%)	8997
Whooping Cough	237(16.6%)	313(21.9%)	771(53.95%)	110(7.7%)	1431
Tetanus	859(55.9%)	269(17.5%)	248(16.1%)	161(10.5%)	1537
Trachoma	38(4.5%)	282(33.3%)	394(46.5%)	134(15.8%)	848
Infectious Hepatitis	498(14.3%)	732(21.1%)	1435(41.3)	809(23.3%)	3474
TOTAL	290602	287599	347020	160083	1085304

Table 3.1 revealed year-wise distribution of reported notifiable disease in the study area. From the table it is very clear that there is fluctuation in the trend over the years. Malaria ranks the top of notifiable disease with total of 85.5% occurrences but the incidence of new cases has decreased from 31.5% to 13.7% between the years 2010 and 2011. There is not much difference in the incidence of other notifiable diseases because of their negligible occurrences in the society. Among the eight diseases considered for the past four years Trachoma is the least number of occurrences with total of 0.0008%.

Table 3.2: Descriptive Statistics of Reported Notifiable Diseases in Adamawa State

Disease	Mean	Sd	CV (%)
AIDS	5414	3275	60.49
Tuberculosis	9307	5619	60.37
Gonorrhoea	1249	347	27.78
Cholera	2096	1795	85.64
Malaria	231993	73006	31.47
Syphilis	495	295	59.60
Pneumonia	16702	5220	31.25
Measles	2249	811	36.06
Whooping Cough	358	288	80.45
Tetanus	384	320	83.33
Trachoma	212	158	74.53
Infectious Hepatitis	869	400	46.03

Table 3.2 shows the Descriptive Statistics of Notifiable Diseases in Adamawa State with mean, standard deviation and percentage of the coefficient of variation. The table revealed that malaria has the highest cases of morbidity in terms of means and its standard deviation of 73006 shows that it has the highest spread. Looking at the percentage of the coefficient of variation, where the standard deviations were divided by their corresponding means, it was observed that cholera is the highest in term of spread. This shows that cholera was in comparison with other notifiable diseases reported from virtually all the Local Government

Areas while malaria which was the most prevalence was endemic in some particular parts of the State.

4.0 CONCLUSION

Disease Notification is an important element in the control and prevention of diseases as prompt response could be effected to abate the impending danger likely to emanate from disease outbreak. It is therefore expedient to study the patterns of such notification to bring out the salient factors and to observe which diseases are likely to occur, where and at what magnitude. This would keep public health experts, epidemiologists, government and non-governmental organizations on alert. From the findings of this work, it is expected that Adamawa State Government and other stakeholders be mindful of the large scale of malaria history and the wide spread pattern of cholera in the State so as to prepare an emergency response to control the outbreak of the diseases by putting in place immunization facilities and other preventive measures.

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