

ABSTRACT

Through national disease surveillance program, measles is one of the infectious diseases that should be eliminated by 2018 started in 2004 but the targeted program was not achievable because of certain factors. This study was conducted to investigate statistically according to total samples, demographical study, serological result for measles IgM and evaluation of detection kit so that it can be mapping out properly.

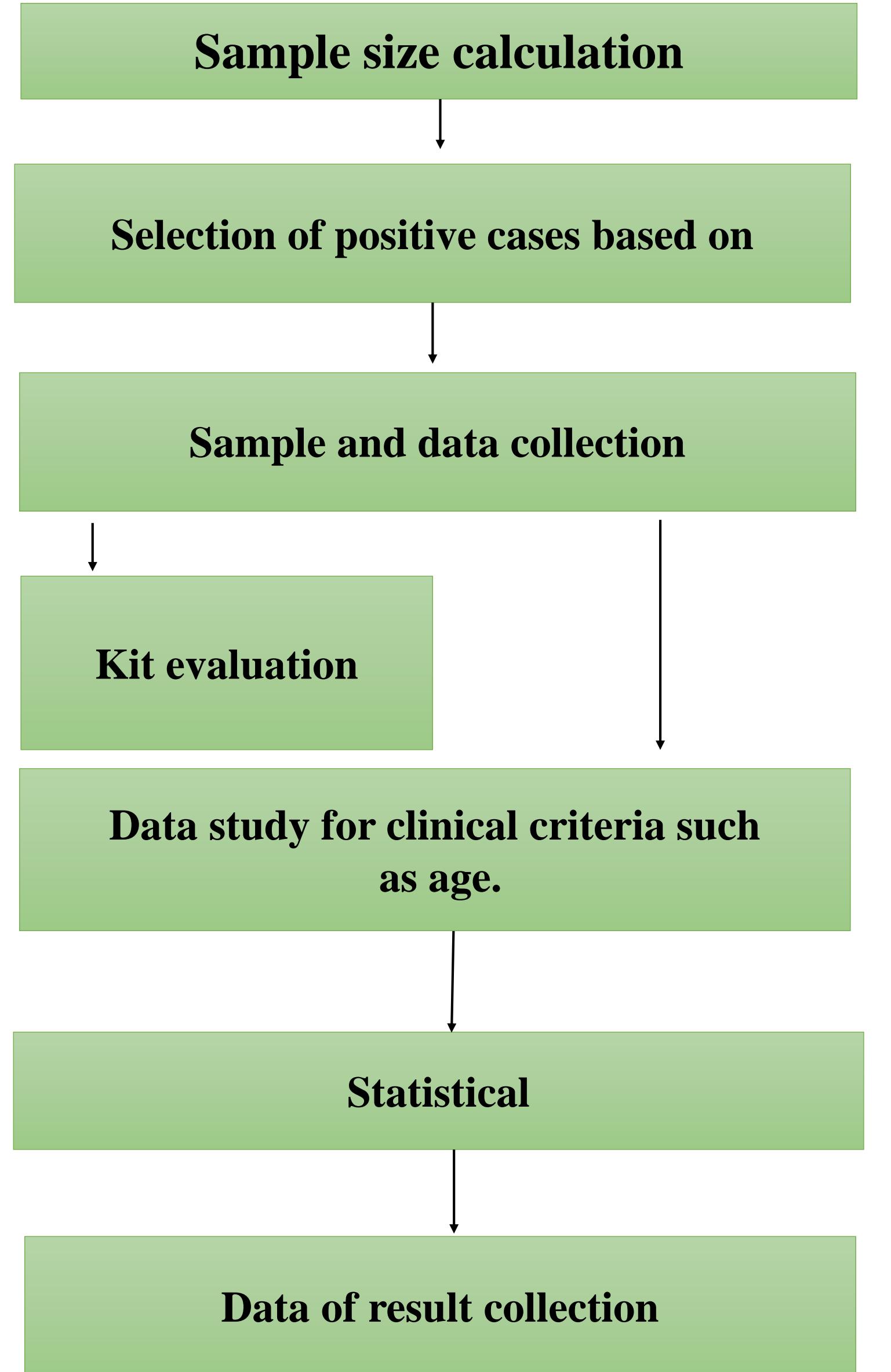
INTRODUCTION

Measles causes millions of deaths across the world prone at area of tropical and become endemic. Measles virus is a single-stranded negative-sense, highly contagious which is come from genus *Morbillivirus*, sub-family *Paramyxovirinae* and family *Paramyxoviridae* which evolved from centuries. In recent years, the progression of endemic become more reduce as vaccination program for measles with second boost has shown the result with high coverage especially in Sub-Saharan Africa. On other hand, with less than 10% of susceptible among communities the outbreak can occur. The average age of measles infection depends upon how long the contact with infected person, the rate of maternal antibodies protective level and vaccination coverage

OBJECTIVE

To compare sensitivity and specificity between ELISA kit (Serion-Virion Measles IgM kit and Siemens Enzygnost Measles IgM kit.)

METHODOLOGY



DISCUSSION

The result specificity and sensitivity has obtained in this study and showing that Siemens Enzygnost Measles IgM kit was high whereas the sensitivity was 100% and specificity was 88.23%. In certain clinical contexts, such as births, immunosuppressed patients and patients with other underlying medical conditions and families with children too young to be vaccinated, the rapid diagnosis of the immunological status of touch patients with measles is essential. The analysis included four main variables, namely sociodemographic variables which is age and gender. Measles can infect any person of any age, but much of the global disease burden resides among children < 10 years of age. Most of the suspected and confirmed measles cases were among those under 10-year-old, followed by the 21 years- 30 years.

RESULTS

Variable	n (%)
Gender	
Male	202 (50.5%)
Female	198 (49.5%)
Age	
0-10	259 (64.8%)
11-20	57 (14.2%)
21-30	46 (11.5%)
31-40	37 (9.3%)
41-50	1(0.3%)
Types of clinical manifestation	
Fever	313 (78.3%)
Without fever	87 (21.8%)
Maculopapular rash	311 (77.8%)
Without maculopapular rash	87 (21.8%)
Conjunctivitis	223 (55.8%)
Without conjunctivitis	177 (44.3%)
Cough	313 (78.3%)
Without cough	87 (21.8%)
Coryza	165 (41.3%)
Without coryza	235 (58.8%)
Vaccination status	246 (61.5%)
Without vaccination status	154 (38.5%)

Figure 1 : Demographic analysis of patients

Test	Sensitivity	Specificity
Siemens Enzygnost Measles IgM	100%	88.23%
Serion-Virion Measles IgM	100%	100%

Figure 2 :The result of sensitivity and specificity test of **Siemens Enzygnost Measles IgM kit and Serions-Virions Measles IgM kit.**

Test	t value	P value
Siemens Enzygnost Measles IgM	-4.684	0.02
Serion-Virion Measles IgM	-5.450	0.00

*comparison is significant at the 0.05 level (2-tailed)

Figure 3 :The result of comparison between **Serion-Virion Measles IgM kit and Siemens Enzygnost Measles IgM kit.**

In conclusion, Hypothesis of this study is achieved. There is significantly difference between sensitivity and specificity of ELISA kit detection (Serion-Virion Measles IgM kit and Siemens Enzygnost Measles IgM kit. Serion-Virion Measles IgM are performed well and thus should be considered useful for measles laboratory surveillance. In order to examine this Measles, further test are needed.

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