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Dear Dr. Obionu,

ACCEPTANCE OF MANUSCRIPT

Your manuscript: "REPORT ON MEASLES OUTBREAK IN A RURAL COMMUNITY IN ANAMBRA STATE, NIGERIA", has been accepted for publication.

Congratulations.

Yours sincerely,

[Signature]

PROF. F.C. AKPUAKA
EDITOR
TITLE: REPORT ON MEASLES OUTBREAK IN A RURAL COMMUNITY IN ANAMBRA STATE, NIGERIA.

BY

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KEY WORDS: Measles epidemic; Expanded Programme
on Immunisation.
A measles outbreak involving 61 persons in a rural community in Nigeria was investigated by a team of state Ministry of Health and Local Government staff and a Unicef Epidemiologist. The incidence of measles was higher among children who were least likely to have benefitted from the Expanded Program on Immunization. Among children 5 years old, the risk of having measles was 7 times greater for children without immunization than for those with immunization. The efficacy of measles vaccine in reducing the incidence of measles is further confirmed in this study.
measles remains a significant public health problem for children without immunization. of the six expanded program on immunization (epi) diseases, measles is the most important cause of morbidity and mortality. it is estimated to cause up to one-third of all the morbidity and mortality from childhood vaccine-preventable diseases. the serious morbidity and mortality accompanying measles in west africa, has been well documented. the efficacy of measles vaccine in reducing the incidence of measles has also been well documented in developing countries. infant measles immunization has been described as the most important public health measure available for the improvement of health status of under-fives in the developing world, if logistical problems can be surmounted. we report an outbreak in a rural community of measles that has benefitted from the expanded programme on immunization (epi), with a view to determining the epidemiology of the outbreak and the relationship between immunization and the disease.
An outbreak of measles was reported in April 1990 in Onyohor community in Igbo-Etiti Local Government Area of Anambra State of Nigeria. An initial visit by a team of Anambra State Ministry of Health staff, the Igbo-Etiti Local Government staff and a Unicef Epidemiologist confirmed the occurrence of measles in the community. A house-to-house survey of the area was conducted between April 24 and 26, using a standard questionnaire. Immunization status was determined by card and history. A case of measles was defined as a person with a rash of at least three days duration, having fever of at least 38 degrees Celsius; and having either cough, coryza or conjunctivitis.

Of a total of 61 cases reported between February 10 and April 24, 1991, children aged 5 + years accounted for 60% of the cases (Figure I). Of these more than half (52.5%) were between 5 - 9 years old (Table I). The least number of cases occurred among children less than one year old (9.3%).
Among children 5 years old, the risk of having measles was 7 times greater for children without immunization than those with immunization (RR = 0.01 95% C.I. = 0.3, 0.07).

**DISCUSSION**

Previous reports show that unvaccinated children are at higher risk of developing measles and the difference in the incidence of measles between vaccinated and unvaccinated children was found to be statistically significant²,²⁰. In our report, the incidence of measles was higher among children who were least likely to have benefitted from the Expanded Programme on Immunisation. These were children who were born before 1986 when the programme started in the area. The risk of having measles was found to be 7 times greater for children without immunization than for those with immunization.

Our data also present evidence of effective vaccination in the area, suggesting as has previously been documented²¹,²² that high measles vaccine efficacy
could be obtained under tropical condition with the development of cold chain technology less dependent on electricity, the use of more heat-stable measles vaccine, improved logistic and immunization practices. These requirements have all been emphasized in recent years by the Revised Expanded Programme on Immunization launched in Nigeria in 1984 by the Head of State, and subsequently by all the State Governments and Local Government Authorities.

Acknowledgement.
This study was funded by UNICEF.
REFERENCES

1. CDC classification of measles cases and categorisation of measles elimination programs. MMWR 1983; 31: 707 - 711.


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<thead>
<tr>
<th>AGE</th>
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<tr>
<td>0 - 11 months</td>
<td>6 (9.8%)</td>
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<td>1 - 4 years</td>
<td>18 (29.5%)</td>
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<tr>
<td>5 - 9 years</td>
<td>32 (52.5%)</td>
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<td>10+ years</td>
<td>5 (8.2%)</td>
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<td>Total</td>
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N = 61, 100.0%

F 1: DISTRIBUTION OF MEASLES CASES BY AGE
ONYOHOR, IGBO ETITI, APRIL 1990

1 - 4YRS 30%

<1 YR
10%

5YRS & PLUS
61%