MEASLES IN BOLIVIA A HONEYMOON PERIOD

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Although measles is a highly infectious disease, the live measles vaccines provides protection for ever 20 year, and immunity may be lifelong. This study assessed measles seroprevalence in schoolchildren in the Cochabamba region of Bolivia.
BOLIVIA

has had one of the highest mortality rates for children younger than 5 years old

1979 All children aged 12-23 months are given a single dose of live attenuated vaccine

1979 the first vaccination campaign was conducted against measles MMR1
INTRODUCTION

BOLIVIA

1980 there was a dramatic decrease in measles incidence: 4-69/100,000 people.

1994 to 2000—Were vaccinated 96% of children under 15 years.

There was a nationwide epidemic in 1998-2000 that involved 2567 people.

1999 EPI second generation introduced some new vaccines: the MMR 2.

There were only 122 cases of confirmed measles in 2000.
INTRODUCTION

BOLIVIA

- % of districts that did not reach the herd immunity threshold increased from 69% in 2009 to 77% in 2010
- With the last confirmed case of indigenous measles occurring in October
- Since 2000, Bolivia has not reported any cases of measles to the WHO
- Even though the official immunization coverage rate has dramatically decreased from 99% in 2000 to 79% in 2010
To maintain herd immunity and prevent measles outbreaks, the immunization coverage rate should be at or above 83-95%.

Bolivian children may have received a single vaccine dose (MCV1) or two doses (MCV2), depending on which campaign they were part of (i.e. catch-up, keep-up, or follow-up campaign).
INTRODUCTION

INMUNIZATION AND SUSCEPTIBILITY

Bolivia only have data of rates of immunization coverage and it does not report the susceptibility.

Immunization for measles can be for 20 years or lifelong.

Given the paucity of data about measles susceptibility in childhood in the Cochabamba region of Bolivia, the study was done.

THE STUDY WAS DONE
METHODS
SEROEPI. SURVEY

performed in march and april of 2010

5-16 year old schoolchildren

LIVING IN COCHABAMBA

n=441 CHILDREN
METHODS

SCHOOLCHILDREN

E. LINKED FLUORECENT ANTIBODY TEST

COLLECTED SOCIODEMOGRAPHIC

14 SCHOOLS BLOOD WERE OBTAINED

PARENT ADMINISTERED QUESTIONARE (BOLKID)
METHODS

Questionnaire BOLKID

- and then did the analysis of measles in Barcelona
- A physical examination
- with socio-demographic variables, parental education levels, and housing conditions
- Ask were completed on the same day
- And was made a blood draw
METHODS

MEASLES PREVALENCE

CHI SQUARE TEST OF FISHERS

KOLMOGOROV SMIRNOV TEST < 0.005

CORRESPONDING THE ANOVA

THE KRUSKAL WALLIS TEST
RESULTS

GLOBAL SEROPREVALENCE WAS 69.61%

LIVING AREA OR NUMBER OF FAMILY

WAS HIGHER IN ADOLESCENTS 84.16%

NO DIFFER ACCORDING TO SOCIOECONOMIC STATUS

SPANISH SPEAKERS 74.74%
CONCLUSIONS

HERD IMMUNITY MAY NOT HAVE BEEN ESTABLISHED.

HIGH PREVALENCE OF MEASLES SUSCEPTIBILITY IN BOLIVIA CHILDREN THUS FOUND.

AND SOME OUTBREAK COULD OCCUR.

HERD IMMUNITY MAY NOT HAVE BEEN ESTABLISHED.
AUTHORITIES SHOULD REDRESS THIS SITUATION BEFORE ENDEMIC MEASLES TRANSMISSION OCCURS NATIONALLY AND REGIONALLY AND THERE IS AN URGENT NEED TO CONDUCT MORE SEROPREVALENCE STUDIES IN THE REGION.