However the peak incidence of Rotavirus diarrhoea was seen among children between 12 and 24 months.

**Conclusion:** Rotavirus gastroenteritis remains a serious public health problem in the developing world and given the extraordinary diversity of the virus in some countries, adequate surveillance is needed to establish rotavirus disease burden. Moreover, as various multinational health organizations take on projects for producing and circulating the rotavirus vaccine, to reduce rotavirus infection in developing countries and to curtail medical costs in developed countries, the precise situation in developing countries like Nigeria needs to be adequately projected so as to effectively enforce the use of the Rotavirus vaccine.

doi:10.1016/j.ijid.2010.02.564

**Public Health Interventions, Modeling & Training (Poster Presentation)**

**81.001**

Bed net coverage, usage and condition in fishing villages of Suba district, Western Kenya

D. Gabriel O

**Maseno University School of Public Health, Kisumu, KY, Kenya**

**Background:** Past studies showed that bed nets can reduce child mortality. Currently, the Kenyan government is subsidizing the price of bed nets, and several non-governmental organizations (NGOs) are distributing nets with little charge. However, information on coverage, usage and condition of nets is lacking, particularly in the remote areas.

**Methods:** We investigated bed net coverage and condition in seven fishing villages on the shore of Lake Victoria, Western Kenya. Usage of bed nets was examined through direct observation in early morning. Residents were asked whether they were trained on proper usage and maintenance of nets. As locals have started to replace traditional papyrus mats with bed nets for spreading and drying small fish, we visited seven beaches to investigate how widely bed nets have been used for capturing and drying fish.

**Results:** On overall, coverage was 71.9% and 41.1% for mainland and island villages respectively. Out of 262 nets only 100 (38.2%) were used. Seventy seven (29.4%) of them were hanged but not used, 51 (19.5%) were not hanged properly, while 34 (13%) were kept in boxes. We observed three types of nets; long-lasting treated bed nets (LLTNs) 47.8%, ordinary 38.5% and Insecticide treated nets (INTs) 13.7%. Eighty seven percent of the observed nets had holes more than 1 cm. On the beaches, 234 bed nets were used for drying fish and 194 (82.9%) of them LLTNs, while 40 (17.1%) were non-LLTNs. Forty one bed nets were used for capturing fish from the lake. Locals preferred LLTNs for drying or capturing fish because they were stronger and fish dry faster and straighter. An NGO distributed 150 LLTNs in one village eight months before this survey, and we counted 52 (36.7%) of them were used for either drying or capturing fish. Out of 244 residents interviewed 236 (96.7%) said they did not get any training on proper usage and maintenance of nets.

**Conclusion:** In addition to pursuing high coverage of bed nets more efforts should be made to ensure that nets are kept in good condition. Education component should be included in the ITN distribution to ensure proper usage and care.

doi:10.1016/j.ijid.2010.02.565

**81.002**

Quantitatively estimated the global burden of disease of chronic and infectious diseases interface in 2002

Y. Yan1,*, B. Choi2, H. Morrison2, T. Wong2, J. Wu2

1 The 4th Military Medical University, Xi’an, China
2 Public Health Agency of Canada, Ottawa, ON, Canada

**Background:** Many chronic diseases are original from infectious agents, and some infectious diseases involve to chronic conditions. If according to current classification for disease control and research, it is easy to produce a neglected area, the interface of chronic diseases and infectious diseases. We try to estimate the global burden of the kind of diseases.

**Methods:** The number of deaths, mortality rate and disability adjusted life years (DALY) of chronic and infectious diseases in the world in 2002 come from the Databases in WHO website. There are 3 chronic and infectious disease interface areas: (1) chronic disease with infectious origin; (2) chronic disease with short-term morbidity; (3) Infectious disease with long-term morbidity. We reviewed the literature to formulate our own evaluation, and calculated the subtotals and percentages of the 3 categories by sex, age, cause and level of development.

**Results:** The percentage of the estimated global number of deaths of chronic disease with infectious origin in all number of deaths and DALY of all chronic diseases were 10.46% and 7.96%. This kind of chronic disease mainly affected on aged of 45+ people. The number of deaths in developing countries accounts for over 2/3, but the mortality rate is higher 1/3 in developed countries. The percentages of the estimated number of deaths and DALY of chronic diseases with short-term morbidity in all chronic diseases were 19.14% and 8.70%.

The mortality rate (503.84 per 100, 000) of aged 45+ in male was higher than ones in female (335.28 per 100, 000). The percentages of estimated number of deaths and DALY in developed countries were higher than ones in high mortality developing countries. The percentage of number of deaths of long-term morbidity infectious disease was near to one third in all of infectious diseases. And it’s affected aged of 15-44 years adolescents and adults, especially to the DALY.

**Conclusion:** The infectious origin chronic diseases should be paid more attention not only in developing countries, but also in developed countries. To take effective health care action in male and in developed countries will play a key role for preventing chronic diseases with short-term morbidity. Through integrate the methods of chronic and infectious disease epidemiology, the kinds of diseases will be controlled effectively more.

doi:10.1016/j.ijid.2010.02.566