MINISTRY OF HEALTH AND SOCIAL WELFARE

Introduction of Measles Second Dose in Tanzania

Fact Sheet

The Government of Tanzania had introduced measles vaccine in its Expanded Programme on Immunization (EPI) since 1975. Strengthening routine immunization is critical as it is the foundation of achieving and sustaining high levels of population immunity to measles. In order to attain the measles elimination goals vaccination coverage needs to reach and remain at or exceed 95% with each of the two doses of Measles vaccines at the district and national levels [1].

The Government has now decided to introduce a second dose of measles vaccine in Routine Immunization (RI) following recommendations from World Health Organization (WHO).

The disease

Measles is an acute viral illness, which is highly contagious. Transmission of the measles virus is by respiratory droplets or through direct contact. Measles virus reduces immunity, and children may die of pneumonia, diarrhoea and encephalitis after they get measles. Children infected with measles may also suffer permanent disability (blindness, cerebral palsy, deafness). Measles disease may lead to malnutrition and exacerbation of opportunistic infection like tuberculosis particularly in young children.

Global context

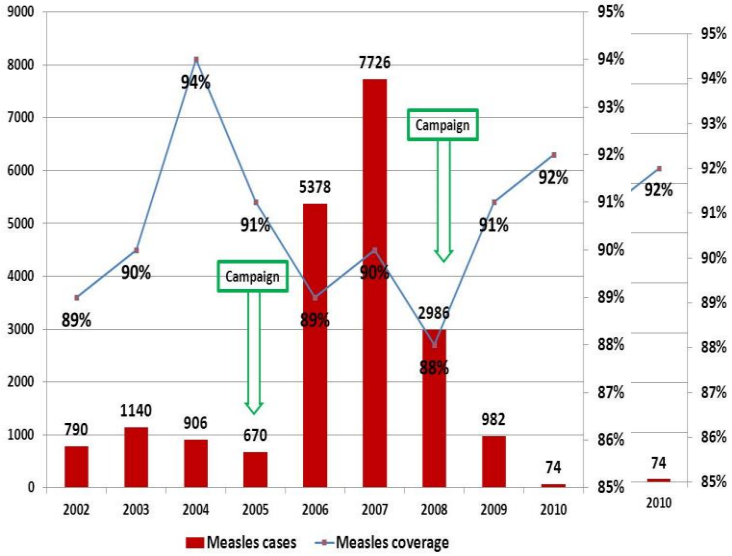
Widespread use of measles vaccine since 1980 has led to a substantial decline in global measles morbidity and mortality. WHO Report on Progress in global control and regional elimination of measles, 2000–2011 Estimated that total MCV1 coverage increased from 72% in 2000 to 84% in 2011, and the number of Member States (MS) providing a second dose of measles-containing vaccine (MCV2) through routine services increased from 97 (50%) in 2000 to 141 (73%) in 2011. During 2000–2011, annual reported measles incidence decreased by 65% from 146 to 52 cases per million population and estimated measles deaths decreased by 71% from 548 300 to 157 700. However, during 2010–2011, measles incidence has increased and large measles outbreaks have been reported in multiple MS in AFR, EUR, EMR and SEAR. To resume progress towards achieving regional measles elimination targets, national governments and partners are urged to ensure that measles elimination efforts receive high priority and adequate resources [2].

The fourth Millennium Development Goal (MDG 4) aims to reduce the under-five mortality rate by two-thirds between 1990 and 2015. Recognizing the potential of measles vaccination to reduce child mortality, and given that measles vaccination coverage can be considered a marker of access to child health services, routine measles vaccination coverage has been selected as an indicator of progress towards achieving MDG 4.

The vision of "a world without measles" is supported by WHO, UNICEF and other partners in the newly released Global Measles and Rubella Strategic Plan 2012–2020 [3].

Tanzania context.

Since the country conducted the campaign in 1999 there was a steady decline of measles reported cases. However, one year after the follow up campaign which was conducted country wide in 2005 for children aged 9 months to 5 years, unusual increase on the number of cases of measles was observed in 2006 and 2007. After the 2008 follow up campaign cases dropped to less than 1,000 cases in 2009. In 2011 we have started experiencing outbreaks and sporadic measles cases in several regions



Measles is a disease of public health importance according to the HIMS Reports. As surveillance protocol, each facility conducts case based investigation and surveillance for measles outbreaks which occur sporadically. Laboratory surveillance in 2011 show a total of 1,582 confirmed measles cases, of which 8.5% were vaccinated, 74% were not vaccinated, and 17.6% vaccination status was unknown. Moreover, the distribution by age shows infants were 17.8%, between 1 and 4 years 47.0%, between 5 and 9 years 20.6%, and 9 years and above is 14.5 % These results indicate that the risk of outbreak is significantly associated with immunization status.

Objective of Introduction Measles vaccine second dose

The overall aim of measles second dose introduction into routine immunisation schedule is to control and eliminate the morbidity and due to measles disease.

One dose of measles vaccine at 9 months of age protects 85% of infants. With the second dose, almost all children who remained unprotected after the first dose will receive protection [4].

Although measles vaccine is already part of immunization programmes worldwide, adding a second dose is much like introducing a "new vaccine" into the immunization system. A new contact must be established, forms and materials revised, training organized, new communication messages developed, supplies procured, and financial resources secured.

Cost effectiveness of introducing Measles Second Dose

In developing countries an enormous toll of measles deaths and disability continues, despite considerable efforts and increasing immunization coverage. Cost-benefit analysis also supports the two-dose schedule in terms of savings in health costs, and total costs to society.[1] A study conducted in Zambia to compare cost-effectiveness of the one dose and two dose regimens showed that the two doses regimen is cost-saving and most cost effective.[2] A two-dose measles vaccination programme is therefore an essential component of preventive health care [5].

What Support is needed?

• Political commitment.

Government to increased resource allocation for immunisation programmes. The goal is for the Immunisation and Vaccine Development Programme (IVDP) to account for 8% of total health expenditure by 2015. Another role is to support / participate in the actual implementation e.g. advocacy and community mobilization.

• Support from partners and stakeholders.

Support from development partners and stakeholders to address the inadequate resources for immunisation program in the country as well as participating in Advocacy, communication and Social mobilization for MCV 2 introduction and routine immunization.

• Community mobilisation and awareness rising.

Influencers and opinion leaders need to be informed of the scale of the problem, and the importance of vaccination with the Measles Second Dose vaccine as part of the solution. It is their role to then pass on this information, and encourage community members to ensure that eligible children within their areas are immunised.

References

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5. Gustavo H Dayan Et al, Cost-effectiveness of three different vaccination strategies against Measles in Zambian children, Centres for Disease Control and Prevention, National Immunization Program, 1600 Clifton Road, Mailstop E-61, Atlanta, GA 30333, USA