

Summary of the Fourteenth Meeting of the International Task Force for Disease Eradication (II) June 4, 2009

The Fourteenth Meeting of the International Task Force for Disease Eradication (ITFDE) was convened at The Carter Center from 8:30am to 3:30pm on June 4, 2009 to discuss the potential eradicability of measles (rubeola). The Task Force members are Sir George Alleyne, Johns Hopkins University; Mr. Ekkehard Betsch, The World Bank; Dr. Donald Hopkins, The Carter Center (Chair); Dr. Adetokunbo Lucas, Harvard University; Professor David Molyneux, Liverpool School of Tropical Medicine (Rtd.); Dr. Mark Rosenberg, Task Force for Global Health; Dr. Peter Salama, UNICEF; Dr. Lorenzo Savioli, World Health Organization (WHO); Dr. Harrison Spencer, Association of Schools of Public Health; Dr. Dyann Wirth, Harvard School of Public Health; Dr. Yoichi Yamagata, Japan International Cooperation Agency (JICA), and Representative (TBD), Centers for Disease Control and Prevention (CDC). Six of the Task Force members (Hopkins, Alleyne, Betsch, Lucas, Rosenberg, Yamagata) attended this meeting, and two others were represented by alternates (Dr. Stephen Blount for CDC, Dr. Edward Hoekstra for Salama).

Presenters at this meeting were Dr. M. Carolina Danovaro-Alfaro of the Pan American Health Organization, Dr. William Moss of Johns Hopkins Bloomberg School of Public Health, Dr. Paul Rota and Dr. Amra Uzicanin of the Centers for Disease Control and Prevention, and Dr. Peter Strebel of the World Health Organization.

Measles Eradication

The ITFDE previously considered this topic in January 2002, when it concluded that “measles eradication is technically feasible, and it is a desirable goal, ultimately”.¹ The ITFDE reviewed the current status of global measles control and regional elimination at this meeting, with particular emphasis on the biologic feasibility of measles eradication, at the request of the World Health Organization.

Measles is one of the most infectious diseases known, and it confers life-long immunity on persons who recover from the viral infection. Patients are most infectious during the four-day prodromal period just before the characteristic rash appears and continue to shed virus for another four days after the rash appears. Transmission occurs year-round, but normally peaks in the dry season or late winter/early spring, with major epidemics appearing at 2-4 year intervals. There is no animal reservoir of infection, and no asymptomatic carrier state. Measles virus is monotypic, genetically stable and shows no evidence of virus recombination.

¹ Summary of the 2nd Meeting of the International Task Force for Disease Eradication, 2002.
<http://cartercenter.org/documents/1182.pdf>.

Before live attenuated measles vaccine was licensed in 1963, measles killed more than 2 million children globally each year. With increasing immunization coverage, the number of deaths from measles globally was reduced to about 750,000 in 2000 (estimated immunization coverage of 72%), and to an estimated 197,000 deaths, mostly children, in 2007 (estimated immunization coverage of 82%). The current goal is to raise immunization coverage to 90% or more at national level and to 80% or more in every district and reduce global deaths from measles to below 75,000 (90% below the 2000 level) by 2010. The epidemiology of measles

confirmed by detecting a four-fold rise in IgG antibody in the acute and convalescent phases of infection, or by isolating the virus in cell culture or detecting viral RNA in clinical samples. Use of dried blood spots on filter paper or oral fluid samples for detection of measles antibodies and viral RNA can help to extend surveillance into remote areas. Global laboratory surveillance for measles and rubella is integrated into a single laboratory network that has an organizati

Spurred by the adverse effects of measles and also by the success in the Americas, all other regions of WHO have established target dates for eliminating measles transmission or for reducing measles mortality.

- x In 1997 the Eastern Mediterranean Region (EMR) established a goal to eliminate measles (defined as incidence <0.1 per 100,000) by 2010. By 2007 this region had reduced incidence to 2.8 per 100,000, but EMR faces significant challenges of insecurity in parts of Afghanistan, Iraq, Pakistan, Somalia and Sudan.
- x In 2002 the European Region (EUR) established a target date of 2010 for eliminating measles. EUR achieved a rate of 0.6 cases per 100,000 by 2007, with special challenges posed by misperceptions of measles as a mild disease and resistance to immunization because of unfounded fears about measles-containing vaccines in parts of Germany, Romania,

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13. Other potential biological barriers to eradication that may require further investigation include the effect of the HIV pandemic on measles disease and protection afforded by measles vaccination.