**Summary of the Second Meeting of the International Task Force for Disease Eradication (II), Jan. 25, 2002**

This meeting of the International Task Force for Disease Eradication was devoted exclusively to the issue of measles (rubeola) and its potential eradicability. The names of members of the Task Force or their representatives who participated in this meeting, the presenters, and other invited guests are included below. The meeting was convened at The Carter Center from 9 a.m. to 4 p.m. on January 25, 2002.

The Task Force members are: Sir George Alleyne, Pan American Health Organization; Dr. Yves Bergevin, UNICEF; Dr. David Heymann, World Health Organization; Dr. Jeffrey Koplan, Centers for Disease Control and Prevention; Mr. James Lovelace, The World Bank; Dr. Adetokunbo Lucas, Nigeria; Professor David Molyneux, Liverpool School of Tropical Medicine; Dr. Mark Rosenberg, Task Force for Child Survival and Development; Dr. Harrison Spencer, Association of Schools of Public Health; Dr. Dyann Wirth, Harvard School of Public Health; Dr. Yoichi Yamagata, Japan International Cooperation Agency, and Dr. Donald Hopkins, The Carter Center. Ten of the 12 attended this meeting. Dr. Jeffrey Koplan was represented by Dr. Julie Gerberding. Dr. Yves Bergevin was not represented. Presentations were given by Dr. Robin Biellik, WHO Regional Office for Africa; Dr. Julian Bilous, World Health Organization; Dr. Diane Griffin, Johns Hopkins University; Dr. Ciro de Quadros, Pan American Health Organization, and Dr. Peter Strebel, Centers for Disease Control and Prevention. Invited guests included Dr. Ana-Maria Henao-Restrepo, World Health Organization, Dr. Samuel Katz, Duke University Medical Center, and Dr. Walter Orenstein, Centers for Disease Control and Prevention.

After measles vaccine was licensed in the early 1960s, one of the earliest regional efforts to control measles was implemented in 20 countries of West and Central Africa from 1967 to 1972, in a combined Smallpox Eradication/Measles Control Program. In addition to temporarily controlling measles throughout the region, this campaign unexpectedly eliminated transmission of the disease altogether in The Gambia for three years (1968-1970). In 1989 and 1990, the World Health Assembly and the World Summit for Children set goals to reduce measles cases by 90% and measles deaths by 95% compared to pre-immunization levels by 1995. By 1995, measles cases had been reduced by about 56 percent, and measles deaths by about 81 percent (1.1 million).

The first ITFDE concluded in 1992 that measles was "not now eradicable", owing mainly to the "lack of suitably effective vaccine for infants; cost; and public misconception of eedicable",0.a4O8 0(. Td Td[s ,9 0 Td[sles casm)9bs cnn-1(iwi000ended903 TjoluTJ0.1 pende Tc 0.119
ilCDC) in 1992 thasle

WHO currently estimates that measles causes approximately 777,000 deaths a year, or about 45 percent of vaccine-preventable deaths among children, and that under-utilization of measles vaccine is the main reason for the high measles mortality remaining. CDC published estimates in 2000 that eradicating measles would prevent the annual deaths and save about $1.5 billion in treatment and prevention costs globally, including $45 million spent annually for the measles component of Measles-Mumps-Rubella vaccine in the United States alone.

Three WHO regions have set regional goals to eliminate transmission of measles: PAHO (by 2000), the European Region (by 2007) and the Eastern Mediterranean Region (by 2010). PAHO has pioneered a three-pronged strategy of "Catch-up": one-time only mass measles vaccination of all children 1-14 years; "Keep-up" routine vaccination of 95 percent of children in each subsequent

In 2001, a U.S.-based coalition (The Measles Initiative) was established with a long-term commitment to control measles deaths. Leading this effort are the American Red Cross, United Nations Foundation, Centers for Disease Control and Prevention, World Health Organization, and United Nations Children's Fund. Other key players in the fight against measles include the International Federation of Red Cross and Red Crescent Societies, and countries and governments affected by measles. This coalition mobilized $20 million in 2001. These funds were used to immunize an additional 20 million children through campaigns successfully conducted in eight African countries. In 2002, plans include providing support to campaigns targeting approximately 70 million children in 17 African countries. Initially, the coalition will focus its efforts in Africa.

The Task Force discussed various technical, operational, financial and socio-political concerns related to measles eradication. Among these was the lack of political and societal support for measles eradication in several industrialized countries of Europe and Asia (for example, France, Italy and Japan) because the local impact of measles is not fully appreciated there by many political leaders, medical practitioners, or by the general public. There is great resistance among some international donors to embarking on an effort to eradicate measles before polio eradication is completed. There is also great concern among some donors and public health leaders in endemic developing countries that measles eradication would mean "another vertical campaign" with negative impact on their broader primary health care infrastructure and systems. Some of the impediments to measles eradication (e.g., urbanization, the HIV epidemic, waning immunity, transmission among adults, and risk of unsafe injections) it was noted, will not be altered by polio eradication, and a few of them can be expected to get even worse over time. It was further recognized that in endemic areas of Africa, particularly, there is need to develop surveillance, epidemiologic, and laboratory capacities to support such an eradication campaign, as well as the need to demonstrate an ability to break transmission of measles in densely populated mega-cities such as Lagos. There is also need to take greater advantage of measles' seasonality in efforts to interrupt transmission.

Although there is a growing body of evidence indicating that existing measles vaccine and strategies are effective to dramatically reduce measles mortality and interrupt measles transmission in large geographic areas, efforts are underway to develop an improved measles vaccine. Participants discussed the optimal characteristics of an improved measles vaccine. An ideal measles vaccine should be safe, confer immunity in young infants who still had maternal antibodies, and not predispose the vaccinee to atypical measles. In addition, the vaccine should ideally be stable and able to be administered without an injection. Various approaches are currently being investigated, including aerosolized vaccine delivery and other needle-free injection methods as well as different types of antigens. Research related to the immunology of measles, new measles vaccines, and alternative routes of immunization are important preparation for an eventual initiative to eradicate measles.

Eradicating polio will be one of the best things in favor of measles eradication, by removing that important source of perceived competition. Until then, measles activities should be integrated with polio efforts wherever possible and practicable when they overlap. Other potential synergies such as association with vitamin A distribution, with other immunizations, and with mass drug distribution campaigns, such as Mectizan or Zithromax, for example, should also be used as appropriate.

**ITFDE Conclusions and Recommendations:**

1. Measles eradication is technically feasible, and it is a desirable goal, ultimately.
2. It seems desirable to accelerate the announced WHO/UNICEF strategy to reduce mortality from measles, by using current tools more effectively to increase routine immunization coverage, provide second