

**Project title:** The Japanese Encephalitis Immunization Campaign for Children of North Korea

**Project summary:** An international campaign to immunize young children of North Korea against Japanese encephalitis (JE) was organized and led by two GSID scientists (Seung-il Shin and Donald Francis). A total of about 1.4 million in 5 southern provinces and the city of Pyongyang, representing more than 97% of all children of 1 to 5 years of age in the target areas, were vaccinated in two campaigns carried out in July 2009 and June 2010.

**Project background:** The project was initiated in response to a request from the Academy of Medical Sciences and the Ministry of Public Health of North Korea (DPRK).

The government of DPRK was concerned by recent increases in JE infections in the country, and sought the help of international partners to vaccinate young children of the country who were most at risk of JE. In late 2008, DPRK representatives contacted Dr. Du Yuping of China, who had previously served as the WHO Representative to DPRK for five years, to seek his assistance for the JE immunization. Dr. Du in turn directed the request to Dr. Seung-il Shin, formerly the director of the UNDP program for the International Vaccine Institute.

**Project funding and support:** The ITF obtained a major funding support from the Bill and Melinda Gates Foundation to pay for the JE vaccine and syringes, to be administered through PATH. Additional funding was donated by Christian Friends of Korea, a private charity in Roanoke, Virginia. A joint fund-raising effort by a private group in Seoul in association with ChildFund Korea provided additional funding for in-country support costs in DPRK.

**Campaign monitoring and oversight:** Donald Francis and Seung-il Shin of GSID, John Wecker and Julie Jacobson of PATH and Du Yuping met with Dr. Chan-hyok Lee, director of international cooperation of the Academy of Medical Sciences, and two representatives of the Ministry of Public Health of DPRK in February 2009 in Beijing, to discuss the JE vaccination program. It was agreed that an international effort with a goal to immunize all 2.3 million children in North Korea between the ages of 1 and 5 years would be launched.

The International Task Force for JE Immunization of Children in DPRK (ITF) was organized in April 2009 to lead the vaccination project. The Task Force was composed of 6 experts representing the US, China and South Korea, who had experience in international vaccination programs and were willing to volunteer their time and expertise for the project. (The initial members of the ITF were Donald Francis, Seung-il Shin and John Wecker of the United States, Du Yuping and Xu Zhi-yi of China and Young-mo Sohn of South Korea.) The initial project goal was to vaccinate all children between 12- and 60-months of age in JE-affected areas of the country.

**Project outcomes:** In the first project year, during the period July 18-24, 2009, a total of 461,240 children aged 12 to 35 months were vaccinated in the 5 southern provinces of North Pyongan, South Pyongan, North Hwanghae, South Hwanghae and Kangwon, and in the city of Pyongyang. An international monitoring team of 6 experts, representing GSID and PATH and two independent observers, monitored the vaccination activities on-site at selected provincial sites and in Pyongyang city.

In the second project year, during the period June 5-13, 2010, a total of 913,654 children between 12 to 23 months and 4 to 6 years of age were vaccinated, in the same geographical areas and under the same international monitoring as in 2009.

Combined together, the 2-year campaign successfully immunized nearly 1.4 million children, representing about 97% of all children in the age group of 1 to 5 years in the targeted areas of North Korea affected by JE.