GiveWell's summary of the key points discussed in a phone conversation between UNICEF (Jos Vandelaer, Chief, Immunization) and Good Ventures and GiveWell on May 25, 2012

History and current landscape of vaccination efforts

In the 1970s, only 15-20% of children received basic immunizations. In the 1980s, UNICEF supported the establishment of a routine immunization system, including construction of its infrastructure. The cold chain was built, health workers trained, and surveillances systems developed. In only ten years, vaccination rates rose from 15-20% to approximately 80%.¹

In 1990, the UN announced that the world had achieved its goal of 80% coverage by 1990. Attention then turned elsewhere. Since then, immunization coverage has largely stagnated. In immunization, there has been attention to "accelerated disease control" efforts (diseases tackled through campaigns, such as polio, measles, rubella, and maternal and neonatal tetanus), and, since 2000, in introduction of new vaccines through GAVI. But there has not been much new investment in routine immunization.

Routine immunization with traditional vaccines is largely paid for by national governments, including both purchasing vaccines and running the cold chain and logistics. With support from partners, it still largely functions in the way it was set up in the 1980s. These vaccines are inexpensive; they cost about \$0.10 to \$0.25 per dose.

The traditional vaccines are procured through UNICEF (which purchases more than half of all vaccines doses globally, allowing it to negotiate lower prices), or directly by governments, and delivered by government health staff. UNICEF also provides technical assistance to governments, and other support where such is needed.

In 2005, as part of the Global Immunization Vision and Strategy (GIVS), a target was set of 90% overall coverage and 80% coverage in every district by 2010. This target was not met and, at the current pace, won't be met by the new target date of 2015.

Need for more funding for routine immunization

The approximately 20% of children who are not vaccinated tend to also lack access to other services and are therefore more likely to get diseases (e.g., due to poor nutrition or lack of water and sanitation) and more likely to die if they get sick (due to lack of access to healthcare).

Funding is mainly needed in areas such as improving outreach, upgrading and modernizing the cold chain and the supply system, and social mobilization. While in

¹ The estimate was retrospectively revised down to about 75%.

most instances governments pay for the "traditional" vaccines (BCG, Polio, DTP, Measles), most of the funding for new vaccines (Hepatitis B, Haemophilus Influenzae B, pneumococcal, rotavirus etc) in the poorer countries is provided by the international community through the GAVI Alliance, with recipient governments paying a small part.

UNICEF believes that a larger effort is needed to raise immunizations rates further and is beginning to explore with countries how it can help them reach the hard-to-reach. It sees three main areas in which it could contribute going forward:

- 1. *Support logistics*: Setting up systems to improve supply management (reduce stock outs) and track spoilage of vaccines. UNICEF has traditionally worked on this in-country.
- 2. *Social mobilization*: UNICEF works to encourage people to access vaccines already, but Mr. Vandelaer thinks that more is needed.
- 3. *Better data on the unimmunized:* In-depth analysis to determine why pockets of children aren't being vaccinated in order to inform program planning so that unvaccinated children can specifically be targeted.

It could also contribute by:

- 4. *Market shaping:* Obtain vaccines at reduced prices while ensuring a stable and healthy market.
- 5. *Advocacy:* Convincing governments to devote more resources to vaccination.

UNICEF has historically been involved in the areas above, but now thinks that it needs to focus more directly on scaling up its efforts and fundraising to focus on the above.

Initially, UNICEF will focus this "scale up" in 13 priority countries, where many of the unimmunized children live, including Uganda, Chad, and DRC. Once plans are finalized, there will be a process to determine if the government or existing funders can fund the additional activities. If there is still a gap, which is likely, additional funders will be sought.

Funding priorities in immunization: campaigns vs routine immunization

We asked Mr. Vandelaer how he saw the relative funding needs for immunization campaigns (such as the Measles Initiative or polio eradication) vs routine immunization. He said that while both are important, and both play an important role to protect people against disease (and UNICEF itself is a partner in the Measles Initiative). He said it tends to be more difficult to raise money for routine immunization Funders often prefer immediate, high visibility results and campaigns get press attention.

Maternal and neonatal tetanus

One of the efforts UNICEF is spearheading is the effort to eliminate maternal and neonatal tetanus. Mothers or newborns can become infected with tetanus when mothers deliver in unhygienic conditions and, for example, a health worker cuts the umbilical chord with a piece of bamboo or old scissor that has tetanus spores on it. About 75% of all tetanus deaths worldwide occur in newborns, virtually all of them in developing countries.

Vaccination campaigns with tetanus vaccine target women of childbearing age in areas of high risk. The vaccination protects both them and their future newborns.

In the 1980s there were close to a million neonatal tetanus deaths per year, and the latest estimate is 59,000 deaths per year. Funding for the initiative comes from a variety of sources, but is insufficient.