On May 22, 2012, Elie Hassenfeld and Natalie Crispin spoke with representatives of the Measles Initiative, Andrea Gay (from the UN Foundation) and Steve Cochi (from the CDC).

We focused on two questions:

- How does the Measles Initiative monitor its campaigns to ensure that they've gone well?
- How would the Measles Initiative utilize additional funds?


## Monitoring

The Measles Initiative told us that they assess program quality at several points:

1. Assessing countries plans pre-funding. Measles Initiative staff review a country's plan of action (a document submitted by a country detailing their plans for a measles immunization campaign) to determine a country's ability to effectively implement a campaign.
2. Monitoring the campaign during implementation. Measles Initiative staff participate as monitors during program implementation and assess issues such as whether vaccines have been properly handled and refrigerated throughout, whether those administering vaccines have been adequately trained, whether health workers appropriately dispose of needles, whether the campaign is reaching hard-to-reach groups who live in remote areas, etc. Sometimes monitors conduct "rapid convenience surveys," surveying small numbers of children to determine whether they have been immunized and whether high coverage has been achieved or additional follow-up efforts are needed in a particular locale. Andrea told us about a recent monitoring visit she took to Myanmar during which she conducted a rapid convenience survey. 20 households were surveyed and 3 children were found who had not been vaccinated because their mothers were planning to take them for vaccination later in the day. These 3 children were then sent to be vaccinated. No further action was deemed necessary in that instance.
3. Maintaining surveillance of measles cases post-campaign. The WHO receives regular updates on measles case rates around the world. The ultimate success and quality of a measles campaign is measured by the occurrence of measles cases (or not) in the target population after the campaign has been completed.

We asked whether the findings from \#2 above are documented. The Measles Initiative told us that all monitoring results collected by the government and international partners are sent to the country's government, which reviews and collates the data. The country sends a summary report to the Measles Initiative. These summary reports do not normally contain data on many of the factors above; instead they are a few pages long and provide a broad view of how the campaign went. The detailed information for a given country may be aggregated and evaluated at a local level, by WHO or UNICEF country offices and the national government (Ministry of Health), but is not aggregated and evaluated at the global level.

Examples of these reports are Ethiopia's 2009 campaign report, Uganda's 2009 campaign report, and Kenya's 2009 campaign report.

In addition to these summary reports, the Measles Initiative obtains information about the progress of campaigns via regular conference calls with WHO regions around the world where it discusses upcoming and past campaigns. These teleconferences are held on a weekly basis for the African region, monthly with the Eastern Mediterranean and Southeast Asia regions and less frequently for the other two regions where measles is not yet eliminated.

The Measles Initiative notes that it does not always have a view into how effectively a country acts at a micro level. For example, if a country's monitors perform a "rapid convenience survey" and find that children have not been vaccinated but then the country chooses not to re-vaccinate that population, the Measles Initiative might not know at the global level. Ultimately, the Measles Initiative views the success of measles campaigns as the countries' responsibilities. It also relies on country offices of its partners at UNICEF and WHO to work with the ministry to solve these issues.

The Measles Initiative also notes that by monitoring measles cases (\#3 above) it has a strong final indicator of whether a campaign was successful or not. If an outbreak occurs in the age group targeted, this is strong evidence that the campaign was not successful or of high quality. Outbreak investigations are sometimes conducted to gather more information to understand the reasons why the outbreak occurred and children were missed.

## Room for more funding: the use of additional donations

The Measles Initiative told us that there have been recent cases where it had to delay campaigns due to insufficient funding: Kenya in 2009, Chad in 2010, and Nepal this year all faced delays because of lack of funding. In the case of Chad, the campaign was carried out approximately a year later, in Kenya six months later, and in Nepal three months later. Because both the Measles Initiative and the country provide funding for each campaign, delays occur when either funder doesn't provide enough funds in a timely manner. In general, if campaigns get delayed, they stay at the top of the queue and go forward once sufficient funding comes in to run them.

In addition to delaying campaigns, limited funding can cause campaigns to run on limited resources. In the 2009 Kenya campaign, the government did not provide all of the agreed upon funding, and this meant that it cut back on supervision and outreach teams. Cutting back on supervision reduced the quality of the campaign; cutting back on outreach teams meant that it didn't reach some hard-to-reach children. Finally, limited funds reduced the amount spent on social mobilization: i.e., efforts to promote the campaign to ensure that communities know that a measles campaign was occurring.

Campaigns can also be delayed for non-funding-related reasons. For example, campaigns have been delayed in Cote d'Ivorie because of civil unrest.

The Measles Initiative said that with additional funds right now (May 2012), it would be able to run expanded measles campaigns in Kenya, Niger and Rwanda. Normally, measles campaigns, after the first campaign (known as the "catch-up" campaign) in a country, focus on 9-59 month olds (who are most likely to die from measles) born since the previous measles campaign. But, sometimes the Measles Initiative aims to vaccinate older children as well to create herd immunity by reaching the remaining susceptible older children--the Measles Initiative believes it would be valuable to vaccinate older children in these three countries (between the ages of 5 and 14 in Niger and Rwanda, and 5 and 10 years of age in Kenya). The Measles Initiative would use additional funding to expand the age range of these campaigns.

Kenya has scheduled its campaign for September and Niger for October, so they would each need to decide which size campaign they are running so that they can order vaccines by the end of June. The additional cost for Kenya is $\$ 12.4$ million; for Niger, it would be $\$ 5.9$ million; and for Rwanda it would be $\$ 3.0$ million.

The Measles Initiative also notes that it believes that the lab network for measles and rubella is consistently underfunded.

