CDC I-Catalyst Program Project

NCEZID Rapid Digitized Mapping Interview Protocol Guide and Questions

Background Information:

During many sizeable humanitarian and public health crises, organizations have offered a variety of Global Information Systems (GIS) support to partners in low-resource settings to inform targeted response efforts. Despite the clear need for mapping resources, many low-resource areas or smaller events have insufficient GIS expertise and spatial data development and rely on the support to create timely maps. The Division of Global Migration and Quarantine's International Border Team (IBT) collaborates with partner countries to build their capacity to gather and visualize community-level information on population movement patterns and to interpret the results for preparedness and response activities. Through these partnerships, IBT understands that partners have the required basic to intermediate GIS skills to produce maps of their existing health data, but they lack the advanced skills required to develop efficient data collection strategies and to geo-reference and digitize data annotated on paper maps. Consequently, host country partners rely on IBT to adapt tools and to convert their participatory mapping data to useful output. Therefore, IBT seeks to identify a low-cost, easy-to-use solution to enable host-country partners to more rapidly and independently create mapping data to inform their understanding of at risk communities based on population movement patterns. With this innovation, host-countries will improve their capacity to more efficiently mitigate the geographic impact of communicable disease without relying on IBT's continued involvement.

Federal scientific agencies, like the CDC, rely on research and findings through public health surveillance, epidemiologic assessments, and evaluations to help them develop solutions to public health problems which ultimately are disseminated to end-users and stakeholders for adoption and use. However, anecdotal and empirical data show that many well-meaning, robust solutions are never used or adopted by the intended end-user. One reason for this is that very often federal agencies make assumptions about what our end-users want and need. Through a "customer discovery" process, IBT will explore who their end-user is, the exact problem they are trying to solve for the end-user, and how the end-user wants to receive or use the solution from the team —which the team will then further explore mainly through interviews with likely end-users. The information collection is necessary to create usable solutions that are end-user centric and meaningful to users.

Therefore, to succeed in building host-country capacity to process this GIS-related data in a variety of limited infrastructure environments, IBT seeks to first talk with our ministry of health partners to better

understand the end-user, the problem, and the appropriate solutions. Ultimately, the team aims to develop an innovative, low-resource approach to facilitate the conversion of field-based, GIS-related data annotated on paper maps into a database that partners can visualize using freely available mapping software.

Interviewer to Respondent: Hi, my name is …Thank you for your time. My colleagues and I from the CDC Division of Global Migration and Quarantine would enjoy meeting with you to learn more about how you and your colleagues gather and apply information on the spread of disease. [Insert text to describe why this specific person is invited. For example: We are interested in talking with those individuals who work in the field, particularly at the country level, and thought FETP would be a great resource.] This conversation is completely voluntary and is not directly associated with any ongoing or future partnerships between our groups. Is there a convenient time for you to meet for 30 minutes?

You are invited to participate in a discussion about how you understand where a disease may spread in [insert country] and across borders. We are gathering this information to help improve public health programs and to help prevent diseases from spreading in the community and between countries. Your name will not be used in any reports.

Participating in this discussion is completely voluntary. You can choose to not answer any given question or stop participating at any time. In total, we expect you to spend no more than 30 minutes participating in this discussion. We will take notes during our discussion, to help capture your comments accurately. If we have any follow-up questions we would like to know if you are comfortable with us re-contacting you in the next 3 months.

1. What is your job title?
   a. What are some of your job responsibilities?
   b. How long have you worked at this job?
   c. In what country do you work [*just record this if the information is known before the discussion*]?
2. How does your public health system gather and apply information to understand where a disease may spread?
   a. How do you collect travel history or travel intent information?
   b. How do you analyze information about where the disease may spread – at the district-level, national-level?
3. How do you determine if a health event is considered "serious"?
4. If an event is considered serious, then how do you determine which communities will be at risk?
5. When and how do you determine that there is a risk of international spread?
   a. What are your priorities for understanding this?
   b. How do you apply the IHR Annex 2 decision tree to determine if there is risk of international spread?
   c. How do you incorporate mapping and GIS into your outbreak response activities?
6. What are your biggest obstacles to gathering and applying this information day-to-day?
7. Today, based on your current capacity, how do you think that your public health system could be improved to collect information on population movement?
   a. How are you able to generate GIS data in the field?

b. Please describe which administrative levels can gather and analyze mapping information.
8. Do you have anyone else who you would recommend we should contact?
9. Is there anything else we didn't cover that you would like to discuss?

I would like to note again that if we have any follow-up questions we would like to know if you are comfortable with us re-contacting you in the next 3 months. I will be the one to talk with you again, to ensure that we can efficiently start our next conversation based on what we have already discussed.

Thank you for your time.