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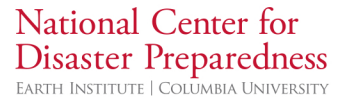
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SANDY CHILD AND FAMILY HEALTH (S-CAFH) STUDY

Technology and Teamwork: Status Update III

January 20, 2015

Happy New Year and welcome to the third status update from the Sandy Child and Family Health (S-CAFH) Study Team. This issue focuses on the technology supporting our field efforts. We conduct S-CAFH using cutting-edge mobile technology that combines mapping applications, survey programs, fieldwork management tools, mobile databases, and data transfer capability, all of which enable our research teams to be highly agile and virtually paperless. In this update, you can read about how we have made that happen, and how it has helped us locate and interview New Jersey residents affected by Sandy!

Supporting the Field Effort

Over the past six months, the S-CAFH Study Team from Rutgers, Columbia, and NYU has collected over 750 in-depth interviews with residents living in the nine most affected counties in the state. Our advanced mobile technology is central to our field efforts.

Training and Equipping the Team

Jonathan Sury, Senior Technology Manager and Senior Research Coordinator at the National Center for Disaster Preparedness at Columbia University, spent over a week conducting various technology training workshops for the field interviewer team. During these days, he worked with each individual interviewer to make sure that he or she was comfortable using this technology.



Above: Jonathan Sury works with Liz Aquino-Rossi during a Technology Training

Using the Technology

The purpose of the mobile technology and data infrastructure is two-fold. First, each member of the S-CAFH Interview team is equipped with an Android tablet and a



Above: Evan Planas using his tablet in the field on a rainy day

standard feature phone. The encrypted android tablet is primarily used to administer the S-CAFH survey instrument using a “Computer-Assisted Personal Interview,” or “CAPI” application. The app guides our interviewers through the survey in a clear and consistent manner for quality control and the reduction of entry errors. At the same time, our interviewers are thoroughly trained to navigate the paper version of the survey should the technology fail or become unavailable for any reason. Backups and systems redundancy are key features of continuity of operations planning.

The second purpose of the tablets is to provide a mobile data infrastructure which leverages a geographic database of randomly-selected addresses to visit. This allows our team to enter specific information about each household we visit in our attempt to conduct interviews. This information then populates our “tracking database,” which is used to help our management teams assign cases, monitor staff effort, address quality control concerns, and adhere to pre-determined protocols and procedures.

More on How it Works!

For this status update, we asked Jonathan to explain in more detail how the technology actually works. Read on to see what he has to say!

A unique feature of this study is the sheer geographic reach of our field operation, which is essentially the length of the New Jersey Coastline. Through two Google Grants for advanced Google Maps applications, we are able to securely distribute maps of our sampled regions and households from across New Jersey to each of our interviewers’ tablets as well as to headquarter offices. These maps, displayed on Android tablets, help our management teams to geographically coordinate our field efforts. Real-time GPS technology in conjunction with these maps enables our field team to know they are at the correct geographic location when trying to locate eligible study respondents.

The tablet management technologies we employ help assure the physical security of our devices, the safety of our field team, and the data security of our respondents’ information. Once connected to the Internet, survey data are transmitted and stored in a “cloud” instantaneously, which ensures that we do not lose important survey and tracking data. If a device is lost or stolen, we are able to locate and lock the device immediately as well as send a remote command to securely wipe and reset the device.

Technology is rapidly evolving and dynamic. Mobile technologies, in particular, continue to improve with new features added on a near-daily basis. These mobile technologies, although powerful, still require much attention to maintain system integrity. Our team has been fantastic adopters of these tools and as such, the amount of information we are able to rapidly access, collect, transmit, and leverage is impressive and has been central to our successful field operation.

If you are interested in reading other status updates or finding out more about the study, please visit www.scafh.org. Status Update #1 describes the community stakeholder meetings held in Summer 2014 and Status Update #2 explains the initial field efforts. If you would like to be added to our mailing list or have further questions, please contact us at info@scafh.org