

Lessons: West Africa Ebola (2014-2015)

Roxanne Moore

The purpose of this report is to highlight lessons learned over the past six months while serving as DHN Ebola Coordinator, specifically highlighting experience with extended digital response, health activation, as well as serving as the first full-time remote coordinator. This report is written in light of my personal experience and is not representative of the entire Ebola response activation or the full DHN process.

Extended Digital Response

I started as Ebola Coordinator on December 22, 2014 in the midst of winter holidays and after a period of intense activity in September, October, and November. At the time, communications through Skype were starting on a downward trend mimicking the decreasing caseload. From September to November average Skype message counts per workday were 53 in September, 114 in October, and 70 in November. During this same time period, on average, 39 DHN affiliated users were active on Skype representing 18 organizations.¹ Given that DHN currently has 38 affiliated member organizations, nearly half were involved in the Ebola response.² By the end of December, many digital and formal humanitarians were in need of a break from response activities and with many formal humanitarian counterparts rotating out, there was a need for digital responders to begin conversations over again.

The DHN has worked previously in the aftermath of natural disasters, protracted emergencies, conflict, political events, and now a health emergency. Natural disaster response most closely aligns with the 24 hour to 2 week surge capacity many DHN activating members work within. However, the Ebola response more closely aligned with protracted emergencies in terms of length of time and growing intensity. This response, which required many surge oriented teams to work for months at a time, strained volunteer capacity. My position was created after many months of hard work by the DHN Coordinators and Ebola team leads. It did not begin until after much of the work in data identification, creation, and sharing was in place.

Health Activation

Health activation is a new area for the DHN and while many data needs were similar, other things changed including personnel and technological acceptance. In terms of agencies, the World Health Organization (WHO) is best known for health policy, the US Centers for Disease Control and Prevention (CDC) for technicians, and Medecins Sans Frontieres (MSF) for field response. I strongly believe in the missions of each of these organizations, however their approach to response is very different.

¹ [After action report: IM/GIS Ebola communications on Skype](#)

² DHN organization contact list (contains contact information and therefore not to share publicly)

The majority of health personnel do not engage in field humanitarian activities. For example, at the CDC out of 16 Offices and dozens more Branches, only one Branch works in humanitarian response. Moreover, humanitarian health responders are often emergency generalist, whereas Ebola surge health personnel were often disease specialist, which may or may not correlate with the disease in need. As a result, most of those engaged in surge Ebola response were new to humanitarian activities.

In terms of technology, spatial surveillance is slowly growing in health, however many agencies have relatively few GIS professionals and may not realize the full potential. Similarly, the use of mobile data collection systems (mHealth) and especially Call Data Records (CDR) for mobility tracking are on the fringe. Health is often structured by disease and agency not activity. As a result, parallel individuals and sometimes whole surveillance systems are in place. Strengths in one country-based disease surveillance system does not imply strengths in another disease surveillance system. Lastly, although there are global and country-level surveillance systems, there are relatively few regional disease detection systems.

Full-time Remote Coordinator

I do not believe digital humanitarians are only DHN members. Rather digital humanitarians include a broad range of actors such as grassroot and corporate technologist, agencies dedicated to digital response, as well as the remote counterparts of field-based teams. Although I advocated on behalf of DHN affiliated organizations, I also took a broad perspective recognizing that the challenges many Headquartered staff faced were similar to DHN members.

In outreaching to humanitarian teams I spoke at least twice monthly with UNMEER, monthly with WHO, and monthly with CDC at the global, regional, or country level. Over the course of six months, I had the opportunity to engage in 223 extended conversations, meeting 85 times with DHN-affiliated individuals and 138 times with non-DHN affiliated individuals. Non-DHN affiliated discussions can further be categorized by agency either UN or Government (69), NGO or INGO (32), private industry (11), or Researcher (26). During this same time, 133 new contacts were made.³ Broadly, conversations shifted from information gathering in the early months to explaining the DHN in later months. Over this same time period at least 161 connections were made between formal and informal humanitarians in relation to 65 topics.⁴ Additionally, I represented in the DHN physically at 11 events including 4 speaking engagements and had the opportunity to facilitate 19 projects, which can be further categorized into 3 data analyses, 12 reports, and 4 tool collaborations.⁵ This does not imply that all introductions resulted in an outcome or all projects resulted in a product, however it is an attempt to quantify the impact of such a position. For a complete review of materials completed, please visit the [DHN Ebola Coordinator](#) Google Site, which includes all referenced materials.

³ [DHN Ebola Connection Analysis](#)

⁴ [Quantified connections](#)

⁵ [Projects, presentations, and collaborations](#)

One of the greatest challenges for Ebola Coordination was not the health side, rather it was identifying who the DHN members were and what they were accomplishing. Early attempts identified 19 organizations with contact information, 15 facilitating Ebola response.⁶ The DHN website currently list 26 DHN affiliated member organizations (19 Network Members and 7 Supporting Members). The DHN organization roster originally had 36 organizations (22 Members, 14 Supporting, and 0 Stakeholders). After outreaching to organizations and individuals participating in the DHN Google Group and Loomio, we have 38 affiliated member organizations (22 Members, 16 Supporting, and 1 Stakeholder).⁷ However, not all organizations have updated contact emails, or participate in Google Group or Loomio. As of July, of the 21 Members, I have received updated contact information from 17. Of the 16 Supporting Members, I have contact emails for 7⁸.

Recommendations

The length of the response, new activation type, and new coordination approach highlighted a few gaps in digital humanitarian activities. However, the fact that digital response was essentially unheard of five years ago, and now is an assumed component of humanitarian action speaks dramatically to how far it has come. The following recommendations are compiled based upon my experience. Please feel free to agree, disagree, or act upon any of these ideas. They are here to start a discussion.

Extended Digital Response

- DHN affiliated members should individually decide their ability to participate in extended response activities such as health and protracted emergencies as well as within the sometimes ethically grey areas of conflict and political events.
- Improve handover from digital response to field-based response and further support a feedback cycle of field validation of remotely collected data. Our colleagues with Missing Maps have a lot of great ideas regarding this, particularly in connection to the motorbiking mapping initiative.
- Partner with researchers to determine the best ways to sustain volunteer engagement and online communications.
- Critically evaluate the use of Skype:
 - Look into new ways to work with Skype data such as an API that extracts timestamp, Skype handle, and URLs (as a proxy for information sharing).
 - Determine the best hierarchy for Skype rooms, Skype window roster, participant cross-reporting, and separate Skype window for unwinding (ie. Nepali Bar & Grill).
 - Some conversations should move away from Skype. Interested in the socialization of HDX and the potential for data related questions to be centered around the dataset.

⁶ [DHN Ebola Biography/Contact List](#) - public version

⁷ [Participant and DHN member review for Google Groups, Loomio, and DHN website \(May 2015\)](#)

⁸ [Update: Participant and DHN member review for Google Groups and Loomio \(July 2015\)](#)

Health Activation

- Although health responders are limited by geographic and political borders, diseases are not. Digital Humanitarians should further discuss scaling either for an extended period of time or in multiple responses.
- Critically evaluate which partner organizations are represented within the Skype group. For example, the CDC is not allowed to download Skype onto their working computers. Although participant numbers may be high in the Skype group, it does not imply that many potential agencies are represented.
- Support the [coordinated data scramble](#) initiatives by response type (eg. earthquake or drought), as well as by region (ie. Sub-Saharan Africa vs. Pacific Islands). Supplementally, DHN members should evaluate resources which help identify when a given social media tool is applicable in a specific context (eg. Twitter is not the best tool in West Africa⁹).

Full-time Remote Coordinator

- An added value of the DHN coordinator position is the ability to take an independent and high-level perspective of the response and connect various teams together.
- Improve time to creation of a paid digital coordinator. For Ebola, digital coordination begun in August, however the DHN Ebola Coordinator position began in December. It took time to realize the need for this role and gather the resources necessary to support it. However if possible, efforts should be made to decrease that time.
 - For the Nepal response, this included requesting a formal humanitarian letter of support demonstrating the need for a paid coordinator.¹⁰
 - DHN members should consider how to identify potential full-time coordinators on such short notice. Colleagues at UN Online Volunteers may be able to support with a coordinator roster.
- Reporting to a Steering Committee is necessary for grant accountability, however the response coordinator should also report to DHN members. Improving shared knowledge may be as simple as access to self-coordinated resources and monthly reports.
- Explore educational opportunities for digital responders such as a Humanitarian 101 that our colleague Jennifer Chan (NetHope) encourages.¹¹ Additionally, colleagues at TechChange are willing to help facilitate in an educational webinar for DHN members.
- Prepare a digital coordinators resource center containing templates for a Google Site, Google Sheets, and data collection templates (ie. OCHA 4W) with case definitions.
- Create a repository of digital lessons learned that researchers and members may access.
- Consider reorganizing membership structure to more easily explain potential member activities. The DHN Membership restructuring proposal is one such option.¹²
- Ensure baseline contact information and representation across communication channels is in place prior to activation.

⁹ MOBS Labs: [The Twitter of Babel](#)

¹⁰ [Nepal Coordinator Letter of Support](#)

¹¹ Jennifer Chan: [How Technical Communities Are Helping Engineer Better Responses to Global Crises](#)

¹² [DHN Membership Restructuring proposal \(June 2015\)](#)