

Academics are from Mars, humanitarians are from Venus: Finding common ground to improve research during humanitarian emergencies

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In August 2014, just days after the World Health Organization (WHO) officially declared that the Ebola virus disease epidemic in West Africa was a public health emergency of international concern, I received an email from International Medical Corps, a global humanitarian organization, asking me to join their initial emergency response team in Liberia. This was not my first emergency deployment with International Medical Corps; over the past 5 years, I have treated earthquake victims in Haiti, managed a trauma field hospital outside Misurata, Libya, and set up a refugee camp clinic in South Sudan. But launching an Ebola response would require a completely new set of skills.

As the first medical coordinator for International Medical Corps' first Ebola Treatment Unit, one of my tasks was to develop our protocols for clinical care for patients with suspected or confirmed Ebola. In doing so, I scoured the medical literature for clinical trials, diagnostic studies, or even observational studies that could help us develop evidence-based protocols for clinical care. My search came up largely empty. Even prior guidelines developed by WHO and Médecins Sans Frontières (Doctors without Borders) contained only a handful of primary sources in their list of references.^{1,2}

This dearth of research on the clinical management of Ebola virus disease, despite nearly 40 years of international experience responding to epidemics of Ebola in Africa, did not come as a surprise to me. It mirrors the lack of evidence on acute care and public health interventions in all types of humanitarian emergencies, from the management of crush injuries in earthquakes to gender-based violence in conflict settings, from acute malnutrition during famine to cholera outbreaks in refugee camps. Indeed, despite the steady rise in both “natural” and “man-made” emergencies (and the corresponding rise in funding for emergency response),^{3–5} humanitarian healthcare today looks a lot like the rest of medicine did 50 years ago—based largely on anecdote rather than evidence, with few high-quality

research studies to guide practice. The model for responding to humanitarian crises in general, and Ebola outbreaks in particular, can be summarized as “see one, do one, teach one.” We respond to each new emergency with the same tools we used to manage the last one, never truly knowing whether any of it worked, or what alternative methods might work better.

There certainly have been efforts in recent years to change this dynamic. The SPHERE guidelines (<http://www.sphereproject.org>), developed in the 1990s after a cholera epidemic in the refugee camps of Goma in the former Zaire claimed over 30,000 lives, have helped to standardize humanitarian response.^{6,7} But the SPHERE guidelines, similar to those developed for Ebola, are only as good as the research that supports them, of which precious little has been conducted to date.

More recent initiatives have been working to build that evidence base. Evidence Aid (<http://www.evidenceaid.org>), an offshoot of the prestigious Cochrane Collaborative, has done an impressive job of summarizing existing research on humanitarian and disaster response through high-quality systematic reviews and rapid release of pertinent data in response to major crises, including the recent Ebola epidemic.⁸ Perhaps even more important, it has done a significant amount of work to highlight the current gaps in the literature and highest priorities for disaster research.^{9,10}

In addition, Enhancing Learning and Research for Humanitarian Assistance (ELRHA, <http://www.elrha.org>) is a UK-based initiative that has begun working in recent years to bridge the gap between research and practice in the humanitarian realm.¹¹ They have

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developed guidelines for academic-humanitarian partnerships and are working to encourage research into the most pressing questions in humanitarian response.^{3,12}

Although there are numerous barriers to conducting research in humanitarian crises, including barriers related to funding, logistics, and ethical considerations, one of the primary barriers continues to be the gap between the academic institutions who possess the skills to design and carry out research studies and the humanitarian organizations that have both the logistical infrastructure necessary to operate during emergencies and established relationships with the local communities that have the most to gain (or lose) from the research.

The Ebola epidemic is a perfect example, where many academic institutions were able to obtain the necessary funding and ethical approval to carry out diagnostic and therapeutic studies, but had difficulty finding both humanitarian organizations and local communities willing to allow them to conduct their research during the epidemic. As it turns out, much of this disconnect between academic institutions and humanitarian organizations comes down to basic cultural differences between these two communities.

The cultural differences, or at least perceived cultural differences, between academic researchers and humanitarian practitioners were highlighted during a stakeholder meeting in the United Kingdom, sponsored by ELRHA. Members from each community were asked to write down their perceptions of the other community, and the responses were used to generate word clouds based on the most common descriptors. In this exercise, the most common characterizations of academics by humanitarians were “theoretical,” “intellectual,” “unrealistic,” “disconnected,” “researchers,” and “tricky.” The most common characterizations of humanitarians by academics were “misfits,” “missionaries,” “mercenaries,” “passionate,” “dedicated,” “complex,” and again, “tricky.”¹³

While neither of these characterizations is necessarily accurate, there do exist real differences between these two communities that can hamper effective partnerships. One primary difference, for instance, relates to time frame. Academics work over years to develop and answer focused research questions in highly controlled settings. Humanitarian responders, on the other hand, must act within days or weeks to provide lifesaving aid to vulnerable populations in highly complex and chaotic environments. The gulf between these two worlds has meant that the evidence base for acute interventions in humanitarian contexts and resource-limited settings remains frighteningly small.

Other important differences include mandates and measures of success. Humanitarian professionals have a mandate to care for and protect vulnerable populations in specific crisis settings. Their funding comes largely

from donor governments and private contributions, and they tend to measure and promote their success in log frames and press releases that include enumerations of easily quantifiable outputs with an immediate public health impact, such as numbers of patients treated, community health workers trained, shelters built, or latrines dug. Academics, on the other hand, have a mandate to increase knowledge for the benefit of all of humanity, and to train the next generation of academics. Their funding also comes from donor governments and private foundations, but their success is measured largely through publication of research in high-quality journals. Press releases aren't worth much on the curriculum vitae of an academic researcher, and publications are almost meaningless to a humanitarian practitioner.

Despite these differences, fruitful partnerships between humanitarian organizations and academic research institutions are not only possible, but necessary. Academic researchers need the infrastructure provided by humanitarian organizations to conduct research during epidemics or other types of crises. Similarly, in order to have the greatest impact in crisis situations, humanitarian organizations need access to evidence-based guidelines, which can only be developed through research into what works and doesn't work.

Earlier this year, International Medical Corps developed an internal Ebola research team to provide an infrastructure to conduct its own research to produce new knowledge in the context of the Ebola epidemic in West Africa and to engage and coordinate with the multitude of academic research institutions seeking to use its facilities to conduct various trials. One of our first partnerships as part of this effort was with the National Institutes of Health (NIH) to host a clinical trial of the novel therapeutic agent ZMapp.

Extending the ZMapp trial to Ebola Treatment Units managed by International Medical Corps in Sierra Leone required a tremendous amount of coordination and communication between the NIH and our field teams. International Medical Corps staff had to be educated in the mechanics of the trial, such as inclusion criteria, consent process, and treatment and testing protocols, while NIH team members had to undergo training in the use of our Personal Protective Equipment and detailed safety protocols. Given the location of our Ebola Treatment Units in austere environments in rural Sierra Leone, logistical details such as housing, transportation, food, and even water for NIH staff had to be worked out in advance. Finally, and perhaps most importantly, support from both local government and communities had to be obtained for the study. International Medical Corps field staff worked closely with the NIH team, introducing them to local government and community leadership and helping facilitate numerous town hall presentations of the study, in order to ensure community acceptance before beginning the trial.

Despite these early challenges, the partnership has been an overall success, with a significant proportion of all ZMapp trial participants enrolled at International Medical Corps facilities. International Medical Corps has also partnered with other academic institutions, such as the Foundation for Innovative New Diagnostics and WHO to conduct studies on rapid diagnostic tests for Ebola and the Scripps Translational Research Institute to conduct a trial of a new biosensor patch that can allow for remote monitoring of patient vital signs in an Ebola Treatment Unit setting.

Several important lessons have been gleaned from these recent partnerships. First, coordination between research and operational teams always requires significant time and effort, and it has to be someone's specific job to facilitate those relationships. Humanitarian field staff already work 7 days a week, 12–14 h a day during the acute phase of a crisis, and they simply do not have the time to support outside organizations attempting to conduct research. Relationships work best when humanitarian organizations designate staff members at both the headquarters and country level whose only job it is to coordinate with outside academic researchers, providing an overview of clinical and security protocols, orienting them to facilities, and introducing them as needed to local staff and community leaders.

The need for dedicated research staff quickly leads to the second important consideration, which is funding. Any research project carried out in a humanitarian context, however small or non-invasive, will always place a burden on the organization providing the logistical infrastructure for the research study. Even if outside researchers are able to provide for their own staff and the food, housing, transportation and security of those staff (which will be difficult in many humanitarian contexts), they may still siphon off precious resources from their host organization. These resources include tangibles, such as electricity, water, fuel, and space, as well as intangibles, such as staff time and local political capital. Funding to offset these tangible and intangible overhead costs should be built into any research grant and provided to the humanitarian organization as part of the research partnership.

Donor governments can also help facilitate this coordination by providing grants specifically to partnerships between a humanitarian organization and academic research organizations. The Research for Health in Humanitarian Crises fund (<http://www.elrha.org/r2hc/home/>), administered by ELRHA, is one example of this type of grant.¹⁴ Funded by both UKAID and the Wellcome Trust, this new grant can only be awarded to academic-humanitarian partnerships. United States Agency for International Development (USAID), perhaps in conjunction with the NIH, should consider implementing a similar fund for humanitarian research.

One of the final lessons learned is that humanitarian-academic partnerships can be difficult to develop on the

fly, in the midst of a humanitarian crisis. There are numerous financial, legal, and operational details to consider, and often legal documents such as memoranda of understanding, liability waivers, data sharing and authorship agreements that need to be negotiated and signed. With this in mind, International Medical Corps began years ago to forge such partnerships in advance. These sorts of collaborations are important—so that when the next epidemic or earthquake or refugee crisis occurs, the partners will be ready to work together to implement whatever research needs to be done in that context.

Although it may be decades before we build up a substantial evidence base for interventions in humanitarian emergencies, including Ebola epidemics, the important groundwork for conducting research in humanitarian crises is being laid now through partnerships between academic institutions, humanitarian organizations, and crisis-affected communities. Better communication and careful planning, as well as targeted funding, can help facilitate these partnerships in the future and speed this important work.

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References

1. World Health Organization. Clinical management of patients with viral haemorrhagic fever: a pocket guide for the front-line health worker, http://apps.who.int/iris/bitstream/10665/130883/2/WHO_HSE_PED_AIP_14.05.pdf (2014, accessed 19 October 2015).
2. Médecins Sans Frontières. *Filovirus haemorrhagic fever guideline*. Barcelona: Médecins Sans Frontières, 2008.
3. Blanchet K, Sistenich V, Ramesh A, et al. An evidence review of research on health interventions in humanitarian crises, <http://www.elrha.org/wp-content/uploads/2014/09/EvidenceReviewDesignedOnlineFULLpdf1401091.pdf> (2013, accessed 31 July 2015).
4. Leaning J and Guha-Sapir D. Natural disasters, armed conflict, and public health. *N Engl J Med* 2013; 369: 1836–1842.
5. Taylor G, Stoddard A, Harmer A, et al. The state of the humanitarian system. *ALNAP*, <http://www.alnap.org/resource/6565> (2012, accessed 19 October 2015).
6. Ouyang H, Vanrooyen M and Gruskin S. The sphere project: next steps in moving toward a rights-based approach to humanitarian assistance. *Prehosp Disaster Med* 2009; 24: 147–152.
7. The Sphere Project. Humanitarian charter and minimum standards in humanitarian response, <http://www.sphere-project.org> (accessed 31 July 2015).

8. Evidence Aid. Providing resources for decision-makers before, during and after disasters and other humanitarian emergencies, <http://www.evidenceaid.org> (accessed 31 July 2015).
9. Gerdin M, Clarke M, Allen C, et al. Optimal evidence in difficult settings: improving health interventions and decision making in disasters. *PLoS Med* 2014; 11: e1001632.
10. Evidence Aid Priority Setting Group EAPSG. Prioritization of themes and research questions for health outcomes in natural disasters, humanitarian crises or other major healthcare emergencies. *PLoS Curr* 2013; 16: 5.
11. Enhancing Learning and Research for Humanitarian Assistance, <http://www.elrha.org> (accessed 31 July 2015).
12. Enhancing Learning and Research for Humanitarian Assistance. Guide to constructing effective partnerships, <http://www.elrha.org/wp-content/uploads/2015/01/effective-partnerships-report.pdf> (accessed 31 July 2015).
13. Camburn J. Research partnerships in humanitarian contexts. *Humanitarian Exchange*, p. 29, <http://www.odihpn.org/documents/humanitarianexchange050a.pdf> (2011, accessed 19 October 2015).
14. Research for Health in Humanitarian Crisis. The R2HC programme aims to improve health outcomes by strengthening the evidence base for public health interventions in humanitarian crises, <http://www.elrha.org/r2hc/home/> (accessed 31 July 2015).