

CommCare for Humanitarian Response



Health workers in Guinea are trained to use Dimagi's CommCare app designed by the Earth Institute. (Photo: Earth Institute)

Humanitarian response organizations (HROs) reduce the harmful impacts of crises on affected populations, often requiring mobilization within days of a disaster striking. Typically, a core group of international responders join a larger number of local responders to quickly mobilize humanitarian action for those most vulnerable in the aftermath of crisis. Within the first one to two months of emergency relief, response efforts move into early recovery stages, where affected populations are assisted in their transition to a relative state of stability over the course of months or even years. It is during these first phases of humanitarian action that HROs provide the most critical life-saving services including the delivery of medical care, food, cash, and shelter.

The initial recovery phases are chaotic and continually changing, often overwhelming the capacity of HROs to track rapidly shifting needs. HROs struggle to monitor populations, track supplies, and jointly coordinate relief efforts. Responders typically spend a significant amount of time tracking down data, often desperate for information that another responder within their own organization may have. Per the United Nations Office for the Coordination of Humanitarian Affairs' (UNOCHA) Transformative Agenda, there is great need to improve the quality and speed of these processes through better coordination and accountability. In a large crisis, millions of dollars are spent to improve information access and coordination while it is universally acknowledged that more efforts on both are needed to minimize the death toll and economic damage caused by humanitarian crises.

CommCare for Humanitarian Response Coordination Efforts

Rapid advances in mobile technology and expanding network coverage provide a solid platform for the development of mobile applications to quickly organize and share data during humanitarian crises. Mobile applications like CommCare for humanitarian response (mHRs) improve the efficacy of relief efforts by decreasing data entry and transfer time, in addition to facilitating information between and among relief



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organizations, frontline workers, and Ministries of Health. Additionally, beneficiaries can participate in relief efforts more meaningfully by sharing their input while directly receiving accurate information, resulting in a more integrative response.

Humanitarian Response Organizations

Most mHRs are developed during crises, rather than before, limiting training and evaluation. Current mHRs focus on a single functionality even though several integrated functionalities are needed. Current mHRs lack methods to allow data sharing within and between HROs, and can be inhibited by mobile network failures.

- CommCare's application building tools enable non-programmers to configure and deploy mobile applications with point-of-service functions, and remotely update applications instantly
- Applications are tailored to each HRO, using specifications of expressed needs
- mHRs built with CommCare are interoperable via MOTECH with other tools built by HROs. This enables apps to be tested prior to a crisis, and reduces complications arising from multiple data systems that must be coordinated with different parties.
- HIPPA compliant tools enable HROs to selectively and securely share data on protected networks

Frontline Workers and Response Coordinators

Most mHRs have been designed by technologists rather than HROs and are not tailored to the needs of their users. Responders must juggle a number of information sources that are often poorly coordinated.

- Combined mobile data collection, interactive SMS applications, and inventory tracking improve response coordination and service delivery
- Integrated, comprehensive functionality allows features to be turned on or off (e.g. cash transfer programs, preparedness training, beneficiary feedback systems)
- Methods for sharing data between users off of local servers (e.g. "hastily formed networks" on local Wi-Fi or SD card transfer) enable use while domestic mobile networks are down
- Data collection on mobile applications can continue outside of network coverage, and will automatically sync with a cloud-server once connectivity is available
- Integrated map-based visualization leverages third party applications, better enabling responders to identify when and where activities are taking place in real-time
- Built-in QR code reader compatibility enables tagged lab results to be input automatically
- Point-of-service functionalities in mobile applications for post-crisis sustain efforts after immediate response has been carried out (e.g. case tracking, decision support, and embedded multimedia for counseling)

Beneficiaries Affected by Crisis

People affected by a crisis relying on a humanitarian response frequently lack information on services available. Family reunification is stalled due to difficulties in communication between shelters.

- In areas of network connectivity, beneficiaries can interact with coordinated response servers to find whereabouts of family and friends
- Mass messaging from HROs to beneficiaries can ensure beneficiaries receive accurate information on where to seek help and shelter, resulting in an automated, efficient information sharing network