The SOHS study surveyed aid recipients in three countries, representing two chronic, complex emergencies (DRC and Pakistan) and a major sudden-onset natural disaster (Philippines post Typhoon Haiyan).

Despite the oft-repeated refrain that the humanitarian system represents just a tiny slice of the aid provided in emergencies, in these three contexts it was seen by recipients to play a prominent role. Humanitarian organisations (local and international) were cited as the primary source of aid for DRC recipients and the second most important source in the Philippines and Pakistan, after the government. In all three countries aid organisations were cited as a more important source of aid than local businesses and remittances from family members living abroad (Figure 10).

Most recipients said that the aid they received addressed their most pressing needs only partly, and 24% said it didn’t address them at all. For all three countries, the most pressing need was identified as food. The ranking of other needs differed (Figure 11) – for the Philippines, the next most urgent need was shelter followed by cash; for DRC, education followed by protection; and for Pakistan, education followed by health. Cash (or vouchers or mobile money) also ranked high in all three contexts. Education seems to be a greater priority for people living in chronic crisis conditions than the sector’s funding coverage suggests.

**Figure 1 / Recipients’ perceptions of main source of aid (when specified)**

<table>
<thead>
<tr>
<th>Aid organisations</th>
<th>33%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family living abroad</td>
<td>22%</td>
</tr>
<tr>
<td>Government</td>
<td>30%</td>
</tr>
<tr>
<td>Local businesses</td>
<td>15%</td>
</tr>
</tbody>
</table>
More than half (53%) of aid recipients were satisfied with the speed at which the aid arrived; this was particularly true in the Philippines, where nearly twice the number of respondents answered yes than no to this question.

Across the three countries, most recipients (a plurality at 37%) also reported that they were only partly satisfied with the quality and quantity of the aid they received; of the two, there was greater dissatisfaction with quantity.

Also, 44% of surveyed recipients reported not having been consulted by aid agencies on their needs prior to commencement of the aid programming, while only 33% said they had been (23% didn’t know). The agencies fared somewhat better on communicating with their recipients once programming began, to solicit their feedback and complaints (with more recipients in all three countries reporting that they had been consulted than had not); however, only 39% of those that had been consulted said that the agency had acted on this feedback and made changes.

Respondents in the three countries also diverged on what they saw as the largest obstacles to receiving the aid they needed (Figures 12-14). In DRC, lack of sufficient quantity of aid coming in and insecurity/violence were both seen as major problems. In Philippines the main issue was seen as lack of sufficient quantity of aid, whereas in Pakistan it was corruption.
More than half (53%) of aid recipients were satisfied with the speed at which the aid arrived. Most recipients also reported that they were only partly satisfied with the quality and quantity of the aid they received; 44% of surveyed recipients reported not having been consulted by aid agencies on their needs prior to commencement of the aid programming, while only 33% said they had been. However, only 19% of those that had been consulted said that the agency had acted on this feedback and made changes.
During the past few years the most notable innovations in humanitarian assistance have involved information and communications technology (IFRC, 2013c). These pertain more to planning and targeting assistance than to facilitating its actual delivery, and tend to be more applicable to natural disaster response and places with higher levels of Internet access and use. The operational and institutional aspects of the humanitarian system also saw some new, if not especially game-changing, developments during the review period. These were aimed more toward the chronic crisis support function. They included the IASC’s new strategic response planning modality for country-level humanitarian coordination and multi-year funding.

This period also saw growth in the subsector of organisations created to serve and facilitate the work of other humanitarian organisations. Additionally, the idea of innovation itself has gained particular salience among humanitarians in recent years, as agencies have established new units and initiatives with the aim of developing new ideas for programming and operational improvements.

**Using big data and crowd-sourcing to fill gaps in information**

Humanitarian response suffers simultaneously from too little information in some areas and too much in others. In the immediate aftermath of an emergency, for instance, information on conditions, needs and existing capacities in the worst-affected areas is often scarce. Conversely, when multiple agencies begin producing assessments, situation reports, and competing analyses, it can be overwhelming and counterproductive to coordinated action.

Innovative attempts to address the first problem, information scarcity, include crowd-sourced mapping initiatives and remote surveying of affected populations. The Digital Humanitarian Network (http://digitalhumanitarians.com) is a volunteer ‘network of networks’ that supports humanitarian responses with tasks such as media monitoring, crisis mapping and data cleaning. It holds a Digital Humanitarian Summit every year at the International Conference of Crisis Mappers. Micro-mapping platforms such as Crisis Mappers use volunteers to report on and verify local conditions, using artificial intelligence software to compile crisis-related tweets and distil the most relevant information from them (Meier, 2013b). While still experimental, these methodologies seem to hold great potential for quickly gathering, sorting and analysing data using a combination of human and artificial-intelligence inputs, at low or no cost (Meier, 2013a). Mapping software in general has been a boon to humanitarian needs assessment, planning and monitoring. Software such as ArcGIS makes it possible to quickly generate maps that can be layered with different information sets.

Humanitarian agencies have also increased their use of remote telephone polling of affected populations. Although not yet a widespread practice, phone surveys using interactive voice response technology or text messaging potentially allow much greater and more random sampling of a target population than traditional face-to-face household or site surveys. They have been used to get information on needs and to gauge perceptions of or satisfaction with humanitarian programming. This has been greatly enabled by expanding Internet coverage and cell phone ownership, and yet the state of development and income levels remains critical hindrance in some contexts (OCHA, 2013c). In conflict-affected areas, service disruptions, unsecured cell towers and the risk of drawing attention to and potentially endangering respondents make this a nearly impossible task.

A challenge to harnessing the power of big data is the lack of international data standards, which leads to poor information sharing. This has resulted in a call for ‘humanitarian data space’ whereby telecommunications firms would release survey information with the knowledge that this information would be used ethically and responsibly in decision-making for a response.

Finally, although not yet widespread enough to be called a trend, the use of radio frequency tags and GPS locators to track aid commodities as they are delivered and to ensure the integrity of cold chains for vaccines is a promising innovation for humanitarian logistics. At the moment, commodity tracking is used by a surprisingly small number of humanitarian actors, even among the larger UN agencies with well-developed logistics and procurement systems. For instance, only one INGO providing cross-border assistance into Syria has used this technology on a comprehensive and systematic basis to track its deliveries. Barriers to more widespread use are likely to include lack of awareness, fear that tracking devices will arouse suspicion among conflict belligerents, smaller agencies’ reluctance to take on the additional expense and larger agencies’ reluctance to change existing logistics systems.

**Filtering out the noise: Consolidating and optimising information for retrieval**

In the late 1990s with the inception of ReliefWeb and other websites and databases, a plethora of humanitarian information began accumulating online. In the case of information, more is not always better – the surfeit of material being produced by individual actors will have little utility if it is impossible to systemically search and compare it. The once promising web-based Humanitarian Information Centers established by OCHA country offices for particular crises were meant to serve humanitarian actors seeking a single comprehensive information source. However, they were not standardised and individual sites varied in quality of content and upkeep, and they were ultimately discontinued.

The past few years have seen a renewal of efforts to gather, sort and connect the different data streams within the humanitarian community. The Humanitarian Data Exchange initiative (data.hdx.rwlabs.org), with its humanitarian exchange language (HXL) project, is attempting to standardise the technical language of different data sets so they can be easily...
In the humanitarian sector, funding originates primarily from government donors, with a different set of incentives and low tolerance for risk – a serious handicap, given that, in the words of one private sector interviewee, ‘innovation requires failure’.

searched and cross-referenced. Using a system of Twitter-style hashtags, agencies can code their own data sets to share and compare with others and create additional categories of information. At the time of this writing, the Humanitarian Data Exchange had a total of 1478 data sets, and the project is still in the alpha stage, but humanitarian technology experts believe it is ‘on its way to becoming something important’. One interviewee noted that it was used to good effect during the Ebola crisis, when there were no comprehensive and reliable sources of incidence data.

In a related initiative, OCHA has developed an application programme interface for the ReliefWeb site so that it can be made to interface with other programmes for enhanced searchability. ReliefWeb has long been recognised as a potential gold mine of information on humanitarian emergencies but has never been properly exploited because its information could not be easily located or extracted in a standard format.

Operational and institutional developments

On the practical, operational side of humanitarian assistance, little that is wholly new emerged during the review period. Cash and mobile money assistance, discussed in past SOHS reports, continue to take on a more prominent role in humanitarian programming, increasingly replacing food and other material assistance. Cash assistance (conditional and unconditional) and mobile money were perceived to be largely successful in the Haiyan response, where one innovation cited was the decision to give smaller amounts to beneficiaries over longer periods. The use of unmanned aerial vehicles (drones) for needs mapping and aid delivery (small payloads) has been introduced at a small scale but is still controversial.

A phenomenon that, while not new, is growing, is the presence of humanitarian-to-humanitarian organisations. Like the business-to-business sector, humanitarian-to-humanitarian organisations do not deliver aid themselves, but rather provide products and services to other humanitarian organisations, to expedite their work and create efficiencies for the sector. These organisations are mainly funded by grants from traditional humanitarian donors. They provide informational and technical services such as needs assessments (ACAPS, REACH), mapping (iMMAP, MapAction), and security analysis (International NGO Safety Organisation), to name just a few. This trend can be seen as a natural market development in a field with numerous small constituents, and as recognition that the coordination task has become too large and complex for one mandated office (OCHA) to perform singlehandedly.

Towards a culture of innovation in humanitarian agencies

The concept of innovation itself, as an organisational aspiration and area of activity, has taken root in the humanitarian system. In addition to the establishment of the grant-making Humanitarian Innovation Fund hosted by ELHRA (Enhancing Learning and Research for Humanitarian Assistance), the review period has seen the major UN humanitarian agencies establish new structures and processes dedicated to finding innovative solutions and approaches. UNICEF created innovation units in its headquarters and three other cities, as well as 14 ‘innovation labs’ around the world ‘that bring together the private sector, academia, and the public sector to develop solutions for key social issues, and ensure we are always watching for new ideas from unexpected places’ (UNICEF, 2015). In 2013, the World Food Programme established its Cooperating Partners’ Innovation Fund to help cultivate new ideas for cash and voucher programming. And UNHCR has launched UNHCR Ideas, ‘an initiative that uses crowd-sourcing technology to connect employees, partners and beneficiaries using a platform that allows them to share and discuss ideas for tackling some of the organisation’s most pressing problems’ (IRIN Africa, 2013).

Conceivably, by the time the next SOHS report is written, these innovative projects will have resulted in significant new tools to enhance humanitarian programming, but it will be an uphill battle. Innovation in the private sector is made possible by funding from investors who knowingly assume the risk in anticipation of reward. By contrast, in the humanitarian sector, funding originates primarily from government donors, with a different set of incentives and low tolerance for risk – a serious handicap, given that, in the words of one private sector interviewee, ‘innovation requires failure’.

On the institutional and normative side of new innovations is the Core Humanitarian Standard on Quality and Accountability (2014). This initiative is the result of a number of years of attempting to bring together existing standards (Humanitarian Accountability Partnership, People in Aid and Sphere, initially called the Joint Standards Initiative). The Core Humanitarian Standard sets out nine commitments designed to improve the quality and effectiveness of humanitarian assistance. While many welcome the standards, they have also attracted some criticism for being bland – a lowest common denominator and lacking a connection to technical standards that agencies continue to struggle to meet.

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