

# IN CASE OF EMERGENCY: SYSTEM-WIDE RESPONSE IN THE ERA OF COVID-19

## INTRODUCTION

The world is facing a global health emergency. The context is evolving rapidly, and the humanitarian, public health, social, political and economic implications are widespread. Humanitarian actors are grappling with understanding and preparing for the impact of COVID-19 on existing crisis-affected populations around the globe.

This Think Piece looks to the future – beyond the impact on current humanitarian crises to explore what a large-scale rapid response might look like in the context of

COVID-19. It considers how the humanitarian sector could prepare to respond in the event of an L3 emergency<sup>1</sup> during the global pandemic.

This paper explores three key questions:

- ▶ How could such a scenario play out?
- ▶ What factors will influence humanitarian action?
- ▶ What are the challenges and opportunities for preparing for and mitigating negative impacts?



### Features of an IASC Humanitarian System-Wide Emergency Response (L3 response)

- Activates a system-wide mobilisation of leadership, staff and funding capacity
- Aims to enable accelerated, scaled-up delivery of assistance and protection
- Sets up enhanced leadership and coordination capacity of the humanitarian system
- Engages IASC member organisations to ensure contributions in line with organisational mandate areas
- Activated when a humanitarian system changes suddenly and significantly
- Considers five criteria: scale, complexity, urgency, capacity and reputational risk
- Initially activated for a period of 3 months



### Features of a pandemic

- A pandemic is an epidemic that has spread to affect a whole country or the entire world
- Affects a large number of people across international borders
- Pathogens can be airborne, waterborne, vector borne, blood borne or spread by direct contact

## COMMON CHALLENGES IN PREVIOUS RAPID-ONSET LARGE-SCALE RESPONSES

An L3 response in the middle of a global pandemic will not mean business as usual; the international humanitarian system will be entirely compromised. Before the COVID-19 pandemic, the humanitarian community was already responding to the needs of 166.5 million people in humanitarian crises in 35 countries.<sup>2</sup> The complexity of these responses has been compounded by preparing to respond and/or directly responding to the COVID-19 threat. Humanitarian action, particularly at scale, will be hindered by a range of factors at the system, national and organisational levels. Traditional systems and

processes for responding and coordinating at national and international levels will need to reorient. Traditional humanitarian funding mechanisms will need to adapt.

The numbered sections below map out some of the common issues faced in responding to L3 emergencies. They consider these factors in light of potential impacts from a global pandemic, key opportunities and challenges, and considerations for humanitarian actors.





# 1. HUMAN RESOURCING

## The issue

Effective surge to bolster existing capacity during a rapid onset L3 emergency is an integral component of humanitarian response, both for the entire humanitarian system and individual agencies. Central to activation protocols for an L3 emergency is the deployment of experienced 'L3 capable' staff in the event that capacity in-country needs additional support.<sup>3</sup>

## Implications of COVID-19

The pandemic is forcing governments to significantly restrict the mobility of people worldwide in a concerted effort to reduce transmission. Many countries are closing their borders and severely restricting internal movement. This reduced mobility seriously hampers humanitarian agencies' ability to scale up in response to an L3 emergency. For example, the president of MSF has noted that around half the international staff who supports its operations are from European countries that have restricted travel.<sup>4</sup>

 <b>Challenges</b>	 <b>Opportunities</b>
<ul style="list-style-type: none"> <li>▶ Humanitarian actors may struggle to mobilise personnel to deploy either internationally or domestically given the increasing restrictions on movement.</li> <li>▶ In the event that movement is deemed essential by supporting and host governments, negotiations and arrangements to deploy staff may take up time and delay a rapid effective response. Similarly, quarantine requirements may require staff to be isolated for 14 days to eliminate transmission risk, again delaying the response.</li> <li>▶ In the event that essential movement is granted to support a response, the physical wellbeing of all staff must be protected. This will require significant preparation, planning, risk mitigation and possibly resource.</li> </ul>	<ul style="list-style-type: none"> <li>▶ The probable inability of the humanitarian system to surge effectively will drive consideration of more targeted remote support modalities.</li> <li>▶ Many humanitarian staff may be required to work from home in isolation, reducing their ability to perform their usual duties. This may increase the pool of staff can provide remote support.</li> <li>▶ Collaborative surge modalities, such as those piloted under the Transforming Surge Capacity Project,<sup>5</sup> could better support a holistic humanitarian response in the event that some agencies are unable to mobilise personnel.</li> </ul>

## Key questions

- ▶ *What preparations can the humanitarian system and individual agencies undertake to overcome challenges in deploying personnel, such as considerations for remote support, and pre-positioning additional capabilities within country teams?*
- ▶ *What standby protocols need to be amended to reflect the changing COVID-19 situation?*
- ▶ *How can limited surge be optimised to best support the response as a whole? What models can be arranged as a preparedness measure?*



## 2. COORDINATION



### The issue

L3 emergencies activate senior humanitarian leadership and cluster coordination mechanisms. In rapid onset large-scale emergencies, coordination is often one of the main operational challenges. The humanitarian community in the affected country is often overwhelmed by the rapid increase in staff and responding organisations, in addition to rapidly changing context and flows of information. For example, approximately 8,000 agencies responded during the Haiti earthquake, of which at least 1,000 were completely new to the context.<sup>6</sup> Moreover, many of the newly arrived personnel and agencies lack contextual awareness and understanding,

including coordination structures, making the mechanisms themselves ineffective.

### Implications during the COVID-19 pandemic

Global and national responses to COVID-19 require humanitarian coordination at many levels. These mechanisms are in addition to ongoing in humanitarian operations in which coordination systems are activated, including in the Democratic Republic of the Congo, Yemen and Syria – all of which are current L3 activations. An additional L3 response during the global pandemic would place an unprecedented strain on coordination systems.

 <b>Challenges</b>	 <b>Opportunities</b>
<ul style="list-style-type: none"> <li>▶ Restrictions on movement designed to limit COVID-19 transmission will reduce the numbers of new staff and agencies participating in a response. This could hamper scale-up to meet humanitarian needs.</li> <li>▶ National coordination mechanisms that are already activated are being stretched with COVID-19 preparedness and response. These mechanisms may be unable to scale up to respond adequately to a compounding issue.</li> <li>▶ Physical distancing and other precautionary measures may mean that coordination in person is impossible.</li> <li>▶ Many staff who understand the context and coordination structures may have been evacuated or be in lockdown.</li> <li>▶ The effectiveness of coordination may be reduced through less frequent meetings, challenges with connectivity, and language barriers between staff that are difficult to overcome online.</li> </ul>	<ul style="list-style-type: none"> <li>▶ Travel limitations may mean fewer agencies without ongoing operations arrive to respond, meaning existing networks and coordination structures are not at risk of being overwhelmed.</li> <li>▶ There may be greater scope to promote local leadership in coordination due to fewer international agencies being able to send personnel.</li> <li>▶ Remote coordination may free up time for staff with competing priorities.</li> <li>▶ Mobile technology provides a plethora of ways to support remote coordination. For example, WhatsApp was used widely during the Sulawesi response as a coordination mechanism within and outside of the cluster system.<sup>7</sup></li> <li>▶ Countries and individual agencies may send cash rather than support through personnel.</li> </ul>

### Key questions

- ▶ *What opportunities are there to promote remote coordination? Is this an opportunity to test out more contextually adapted systems of coordination? Can these be tested as a preparedness measure?*
- ▶ *Is there a need to update coordination SOPs to reflect the operational realities and contingencies needed to operate during the COVID-19 pandemic?*
- ▶ *How might the roles of cluster leads and co-leads change? Could humanitarian agencies undertake initiatives to strengthen coordination capacity for local partners as a contingency or preparedness measure?*

### The use of technology in response during the COVID-19 pandemic

*The humanitarian community has harnessed technological advances in recent responses to overcome operational challenges. Mounting a response during the pandemic will force agencies to consider emerging technologies to support their responses, including around mitigating risks. For example, the use of unmanned aerial vehicles (drones) to conduct assessments would reduce risks of contact transmission. Mobile technology can be used to facilitate cash transfers – again reducing transmission risks – but can also be used to track and inform about COVID-19 hotspots.*



### 3. LOCAL LEADERSHIP



#### The issue

Since the World Humanitarian Summit in 2016 there has been a sizeable shift across the humanitarian sector towards empowering local actors in humanitarian response, directing more funding to national and local actors, and reducing direct implementation by international agencies. We have seen this put to the test in recent responses that have forced intention to become action. For example, the Government of Indonesia's declaration limiting international staff participation in

the 2018 earthquake and tsunami response in Sulawesi resulted in some interesting models that could be replicated during an L3 response during a pandemic.

#### Implications during the COVID-19 pandemic

The complexities caused by the pandemic – including the strain on the humanitarian system, restrictions of movement of personnel and an uncertain funding environment – are likely to significantly shift the dynamic between international and national responders.

 <b>Challenges</b>	 <b>Opportunities</b>
<ul style="list-style-type: none"> <li>▶ An L3 emergency on top of the COVID-19 response may overwhelm the capacities of local governments and actors. Without quick mobilisation of additional personnel, staff wellbeing and organisational systems may be compromised.</li> <li>▶ The global limits on all non-essential movement of personnel will significantly reduce the ability of international agencies to activate surge mechanisms. This could severely impede the response, because an L3 emergency, by definition, is likely to overwhelm the capacity of those operating in country.</li> <li>▶ Increased reliance on national partners during the pandemic means they are the ones facing greater operational risk, including that of contracting and transmitting COVID-19.</li> </ul>	<ul style="list-style-type: none"> <li>▶ The likely impact of the COVID-19 pandemic on international surge is an opportunity to advance localisation commitments, for example through expanding national partner bases and supporting domestic surge mechanisms.</li> <li>▶ International, national and local partners can discuss preparedness and contingency arrangements during the pandemic, including scenario planning.</li> <li>▶ All stakeholders can make risk mitigation measures central to response contingency planning in the rapidly changing context.</li> <li>▶ Domestic surge modalities could be explored and support increased. For example, in the Philippines, the Transforming Surge Capacity Project has supported a domestic surge model that mobilises national staff to support scale-up of responses.</li> </ul>

#### Key questions

- ▶ *What support do regional and national surge mechanisms need to respond and maintain their rosters?*
- ▶ *What challenges to funding national and local partners need to be revisited and overcome to allow assistance to flow as quickly as possible in an L3 context?*
- ▶ *How do international agencies continue to provide remote technical support to their national and local partners? What models and approaches can we draw on?*
- ▶ *How much preparedness funding should be directed to national and local partners versus international partners? How do we track and understand that shift?*



## 4. LOGISTICS

### The issue

Logistics and transportation issues are consistently challenging for humanitarian actors in the wake of rapid-onset disasters. Critical infrastructure is often damaged, large volumes of relief items cause processing bottlenecks, and unsolicited bilateral donations clog up supply chains. These challenges are sometimes exacerbated by fuel shortages, such as during the 2010 Haiti earthquake, when they hampered the ability of humanitarian actors to distribute relief items.<sup>8</sup>

### Implications during the COVID-19 pandemic

The impact of COVID-19 on global supply chains and transportation has been significant. These logistical challenges are likely to be exacerbated in the event of an L3 emergency as global networks respond to a spike in demands for specific products and services (such as medical equipment) in the context of restrictions on movement of personnel and assets.

 <b>Challenges</b>	 <b>Opportunities</b>
<ul style="list-style-type: none"> <li>▶ Global freight and transport disruptions, such as airlines grounding their aircraft, may reduce options for agencies wishing to transport food and non-food relief items. This may reduce the speed with which agencies can deploy relief items and significantly inflate costs.</li> <li>▶ COVID-19 is disrupting global supply chains, which may hinder procurement of relief supplies.</li> <li>▶ The pandemic is damaging global markets and domestic markets. A large-scale response would further compound the situation for local markets in crisis-affected areas, compromising the livelihoods of vendors and producers.</li> </ul>	<ul style="list-style-type: none"> <li>▶ Restrictions on travel have reduced global demand for fuel, which may mitigate the challenge of supply shortages.</li> <li>▶ Disruption to international supply chains may provide scope for enhanced engagement with local suppliers, promoting local market stimulation following a crisis.</li> <li>▶ Many governments are addressing domestic challenges by activating or enhancing existing social protection mechanisms. This environment is favourable to preparing to respond through cash transfers.</li> <li>▶ Humanitarian actors can work to ensure that relief supplies are pre-positioned strategically to meet an L3 scenario.</li> </ul>

### Key questions

- ▶ *How can humanitarian stakeholders engage local suppliers<sup>9</sup> in advance of a crisis to optimise local procurement of relief items in a compromised global logistic system? Can these mechanisms also increase financial efficiency?*
- ▶ *How can in-county operations be better prepared for a largely cash-based response?*
- ▶ *What cash responses are the most feasible and can reduce risks related to the transmission of COVID-19?*

#### Cash and COVID-19

*Cash transfer programming, where feasible, is widely recognised as a better option than the delivery of material relief items. The use of some cash distribution mechanisms, such as mobile cash transfers, can also help circumvent logistical challenges with the delivery of material relief supplies. Cash gives more options for remote delivery and means less need for queues around distribution points, reducing COVID-19 transmission risks and enabling humanitarian agencies to work alongside social protection systems.<sup>18</sup>*





## 5. HUMANITARIAN FINANCING

### The issue

Humanitarian funding needs have hit unprecedented levels in 2020, requiring more than USD 30 billion. As of March, only 3.9% is funded. By contrast, in 2019 humanitarian appeals required USD 27.8 billion, of which 63% was funded.<sup>10</sup> Traditional humanitarian donors and agencies are stretched to find new funding opportunities to meet growing needs.

### Implications during the COVID-19 pandemic

COVID-19 is adding to global humanitarian financing needs in 2020. The IASC has released a Global Humanitarian Response Plan for COVID-19 with a budget of USD 2.01 billion<sup>11</sup>, over and above the existing USD 30 billion of financing required for global humanitarian needs. An L3 response requires mandated agencies to mobilise resources, and stipulates a Central Emergency Response Fund activation. Securing the requisite finance in the constrained funding environment will test donor commitments and priorities.

 <b>Challenges</b>	 <b>Opportunities</b>
<ul style="list-style-type: none"> <li>▶ In the context of an impending global recession, governments may reduce overseas development and humanitarian expenditure to cope with economic downturn in their own countries.</li> <li>▶ It will be difficult for agencies to mobilise funding to meet the humanitarian needs already appealed for in 2020, let alone those needed for the global response to COVID-19.</li> <li>▶ Given the large-scale domestic responses to COVID-19 in many developed countries, the not-for-profit sector is at risk of a sharp reduction in public, private and possibly government funding.</li> </ul>	<ul style="list-style-type: none"> <li>▶ Less traditional government donors such as China, Russia and Cuba are providing aid to countries during the COVID-19 crisis. This may position them as playing a larger role in a compounding L3 scenario.</li> <li>▶ Leveraging messaging about global solidarity and the importance of preparedness can ensure that the general public does not become protectionist in the face of the pandemic.</li> <li>▶ The pandemic can underpin advocacy for ongoing, or increased, investments in disaster preparedness and response.</li> <li>▶ Technological advances such as crowdfunding can be harnessed to support humanitarian needs (a 210% jump occurred in Asia in 2015)<sup>12</sup>.</li> </ul>

### Key questions

- ▶ *How can humanitarian agencies work with donors and partners to ensure humanitarian needs outside of those related to COVID-19 are not neglected?*
- ▶ *How can humanitarian agencies work with donors and partners to provide COVID-19 support to countries and governments in addition to existing commitments?*
- ▶ *How can we promote positive public messages about the need to continue to support global humanitarian needs whilst protecting vulnerable people at home?*
- ▶ *What financing mechanisms can be leveraged to supplement traditional humanitarian donors?*
- ▶ *How could the current climate be optimised to strengthen engagement with Southern donors?*



## 6. CIVIL-MILITARY COORDINATION



### The issue

Recent large-scale crises have seen significant deployments of military personnel and assets to support the relief effort. For example, at the peak of the Haiti earthquake response the US deployed more than 22,000 personnel, 33 vessels and more than 300 aircraft.<sup>13</sup>

### Implications during the COVID-19 pandemic

Governments across the world are mobilising their military forces to support domestic responses to COVID-19. For

example, in the US the 1000-bed hospital ship, USNS *Mercy*, is headed to California to assist with the response to COVID-19, while the USNS *Comfort* heads to New York City.<sup>14</sup> In the state of New York the army is constructing field hospitals, and it has been acknowledged for the first time 'that the coronavirus pandemic could impact military readiness.'<sup>15</sup> France, Germany, Italy, Singapore and the UK have mobilised military assets in response to the spread of the virus, and in Australia, Australian Defence Force personnel are providing support, including in transportation of medical supplies.<sup>16</sup>

 <b>Challenges</b>	 <b>Opportunities</b>
<ul style="list-style-type: none"> <li>▶ Involving militaries in the response to COVID-19 has potential global knock-on effects on peace and security. For example, due to competing priorities, nations could withdraw their troops from peacekeeping nations, as happened during the Ebola outbreak, severely diminishing protection for vulnerable populations.</li> <li>▶ There is likely to be reticence to deploy military assets internationally to respond to natural disasters, both from a national security and a force protection point of view. Should a rapid onset L3 natural disaster occur in the next six months, the likelihood of countries sending their military forces to help will be low. This will limit the international humanitarian system's ability to get materials and personnel into disaster zones quickly, and affect field hospitals, urban search and rescue and communications infrastructure.</li> </ul>	<ul style="list-style-type: none"> <li>▶ With international militaries being absent or less involved than usual in large-scale emergencies, national defence forces will be the face of disaster response for some affected nations. This could lead to the development of more fit-for-purpose coordination mechanisms and best practice that is more tailored to the context than the standard support from militaries.</li> </ul>

### Key questions

- ▶ *How can global humanitarian needs be triaged to prioritise those for which limited international military capability might be utilised?*
- ▶ *Will people, both civilian and military, be deployed only if they have already had COVID-19 and therefore are at reduced risk of re-infection?*
- ▶ *Will curbing of the use of militaries internationally but increasing reliance domestically have a long-term impact on how countries approach disaster response and how they coordinate?*



## CONCLUSION




The humanitarian system, and the entire world, is facing unprecedented challenges and uncertainty in the midst of the biggest global pandemic since 1918. We can't ignore the ongoing crises that will be compounded by the COVID-19 pandemic, or the needs of countries struggling to cope. However, whilst we must continue to address the problems at hand, we should ensure that humanitarian

actors are prepared to perform as effectively and efficiently as possible should L3 emergencies exacerbate the crisis.

The below presents a summary of key questions for humanitarian agencies and donors to consider in enhancing their preparedness to respond should the system be tested even further.

<p><b>Human Resourcing</b></p> 	<p><b>Key questions</b></p> <ul style="list-style-type: none"> <li>▶ <i>What preparations can the humanitarian system and individual agencies undertake to overcome challenges in deploying personnel, such as considerations for remote support, and pre-positioning additional capabilities within country teams?</i></li> <li>▶ <i>What standby protocols need to be amended to reflect the changing COVID-19 situation?</i></li> <li>▶ <i>How can limited surge be optimised to best support the response as a whole? What models can be arranged as a preparedness measure?</i></li> </ul>
<p><b>Coordination</b></p> 	<p><b>Key questions</b></p> <ul style="list-style-type: none"> <li>▶ <i>What opportunities are there to promote remote coordination? Is this an opportunity to test out more contextually adapted systems of coordination? Can these be tested as a preparedness measure?</i></li> <li>▶ <i>Is there a need to update coordination SOPs to reflect the operational realities and contingencies needed to operate during the COVID-19 pandemic?</i></li> <li>▶ <i>How might the roles of cluster leads and co-leads change? Could humanitarian agencies undertake initiatives to strengthen coordination capacity for local partners as a contingency or preparedness measure?</i></li> </ul>
<p><b>Local Leadership</b></p> 	<p><b>Key questions</b></p> <ul style="list-style-type: none"> <li>▶ <i>What support do regional and national surge mechanisms need to respond and maintain their rosters?</i></li> <li>▶ <i>What challenges to funding national and local partners need to be revisited and overcome to allow assistance to flow as quickly as possible in an L3 context?</i></li> <li>▶ <i>How do international agencies continue to provide remote technical support to their national and local partners? What models and approaches can we draw on?</i></li> <li>▶ <i>How much preparedness funding should be directed to national and local partners versus international partners? How do we track and understand that shift?</i></li> </ul>



<p><b>Logistics</b></p> 	<p><b>Key questions</b></p> <ul style="list-style-type: none"> <li>▶ <i>How can humanitarian stakeholders engage local suppliers<sup>17</sup> in advance of a crisis to optimise local procurement of relief items in a compromised global logistic system? Can these mechanisms also increase financial efficiency?</i></li> <li>▶ <i>How can in-county operations be better prepared for a largely cash-based response?</i></li> <li>▶ <i>What cash responses are the most feasible and can reduce risks related to the transmission of COVID-19?</i></li> </ul>
<p><b>Humanitarian Financing</b></p> 	<p><b>Key questions</b></p> <ul style="list-style-type: none"> <li>▶ <i>How can humanitarian agencies work with donors and partners to ensure humanitarian needs outside of those related to COVID-19 are not neglected?</i></li> <li>▶ <i>How can humanitarian agencies work with donors and partners to provide COVID-19 support to countries and governments in addition to existing commitments?</i></li> <li>▶ <i>How can we promote positive public messages about the need to continue to support global humanitarian needs whilst protecting vulnerable people at home?</i></li> <li>▶ <i>Can novel financing mechanisms supplement traditional humanitarian donors and governments?</i></li> <li>▶ <i>How could the current climate be optimised to strengthen engagement with Southern donors?</i></li> </ul>
<p><b>Civil-Military Coordination</b></p> 	<ul style="list-style-type: none"> <li>▶ <i>How can global humanitarian needs be triaged to prioritise those for which limited international military capability might be utilised?</i></li> <li>▶ <i>Will people, both civilian and military, be deployed only if they have already had COVID-19 and therefore are at reduced risk of re-infection?</i></li> <li>▶ <i>Will curbing of the use of militaries internationally but increasing reliance domestically have a long-term impact on how countries approach disaster response and how they coordinate?</i></li> </ul>

## ENDNOTES

- 1 An L3 emergency is a major sudden-onset humanitarian crisis, triggered by a natural disaster or conflict, which requires system-wide mobilisation: <https://reliefweb.int/report/world/humanitarian-system-wide-emergency-activation-definition-and-procedures-iasc>
- 2 Global Humanitarian Overview 2020. [https://www.unocha.org/sites/unocha/files/GHO-2020\\_Abridged\\_EN.pdf](https://www.unocha.org/sites/unocha/files/GHO-2020_Abridged_EN.pdf)
- 3 [https://reliefweb.int/sites/reliefweb.int/files/resources/06\\_how\\_the\\_system\\_responds\\_to\\_l3\\_emergencies.pdf](https://reliefweb.int/sites/reliefweb.int/files/resources/06_how_the_system_responds_to_l3_emergencies.pdf)
- 4 [https://www.thenewhumanitarian.org/news-feature/2020/03/24/coronavirus-challenges-humanitarian-aid?utm\\_source=twitter&utm\\_medium=social&utm\\_campaign=social](https://www.thenewhumanitarian.org/news-feature/2020/03/24/coronavirus-challenges-humanitarian-aid?utm_source=twitter&utm_medium=social&utm_campaign=social)
- 5 [https://reliefweb.int/sites/reliefweb.int/files/resources/emergency\\_response\\_evaluations\\_-\\_meta\\_evaluation\\_2009\\_to\\_2012\\_7.pdf](https://reliefweb.int/sites/reliefweb.int/files/resources/emergency_response_evaluations_-_meta_evaluation_2009_to_2012_7.pdf)
- 6 [https://reliefweb.int/sites/reliefweb.int/files/resources/CHS\\_Future\\_Humanitarian\\_Surge.pdf](https://reliefweb.int/sites/reliefweb.int/files/resources/CHS_Future_Humanitarian_Surge.pdf)
- 7 Humanitarian Advisory Group (2019) 'Charting the New Norm? Local Leadership in the First 100 Days of the Sulawesi Earthquake Response.
- 8 <https://www.reuters.com/article/us-quake-haiti-fuel/fuel-shortages-cause-jams-at-haiti-gas-stations-idUSTRE6013VV20100120>
- 9 <https://www.globalinnovationexchange.org/innovation/pacific-local-supplier-engagement-project>
- 10 <https://fts.unocha.org/appeals/overview/2020>
- 11 <https://www.unocha.org/sites/unocha/files/Global-Humanitarian-Response-Plan-COVID-19.pdf>
- 12 Global Humanitarian Assistance Report 2017. <https://reliefweb.int/report/world/global-humanitarian-assistance-report-2017>
- 13 [https://www.rand.org/content/dam/rand/pubs/research\\_reports/RR300/RR304/RAND\\_RR304.pdf](https://www.rand.org/content/dam/rand/pubs/research_reports/RR300/RR304/RAND_RR304.pdf)
- 14 [https://www.washingtonpost.com/national-security/us-navy-hospital-ship-heads-to-los-angeles-as-pandemic-spreads/2020/03/23/3210b6b0-6d39-11ea-96a0-df4c5d9284af\\_story.html](https://www.washingtonpost.com/national-security/us-navy-hospital-ship-heads-to-los-angeles-as-pandemic-spreads/2020/03/23/3210b6b0-6d39-11ea-96a0-df4c5d9284af_story.html)
- 15 <https://www.reuters.com/article/us-health-coronavirus-usa-military/u-s-military-to-send-field-hospitals-to-new-york-seattle-idUSKBN21A357>
- 16 <https://www.defenceconnect.com.au/land-amphibious/5806-covid-19-update-adf-to-assist-state-territory-health-authorities>
- 17 <https://www.globalinnovationexchange.org/innovation/pacific-local-supplier-engagement-project>
- 18 <https://www.calpnetwork.org/wp-content/uploads/2020/03/COVID-CVA-guidance-summary-24-03-20.pdf>

 [facebook.com/humanitarianadvisorygroup](https://facebook.com/humanitarianadvisorygroup)

 [@HumAdGrp](https://twitter.com/HumAdGrp)

[www.humanitarianadvisorygroup.org](https://www.humanitarianadvisorygroup.org)

HUMANITARIAN  
ADVISORY GROUP

