To hasten Ebola containment, mobilize survivors

The current Ebola outbreak is unique in its magnitude and its dispersion in dense, mobile populations. Physician and nurse responders face high mortality, and foreign aid in the form of medical supplies and staff continues to be unequal to the scope of the problem. Fear and loss have overwhelmed affected communities, already among the poorest in the world and still recovering from brutal civil wars. While the number of Ebola cases in Liberia appears to be on the decline, Ebola infections in Sierra Leone and Guinea continue to increase. That the response to the epidemic be swift and massive is a matter of life and an unknown number of deaths.

Survivors of Ebola infection are valuable resources still largely overlooked in the struggle to contain the epidemic. With a case recovery rate of around 30% at the present time for the current West African epidemic, survivors already number thousands. There are several reasons why Ebola survivors may be critical to controlling the epidemic.

First, and most importantly, the recovered have developed immunity to the current strain of Ebola and therefore are able to care for the sick with little to no risk of re-infection. In a sense, survivors are the only people in the world who are ‘vaccinated’ against further Ebola infection with the strain in circulation. This uniquely positions them to mediate between the infected and uninfected and between local people and foreign responders.

Second, survivors can donate their blood, as their antibodies might be protective and help those infected to survive the deadly virus. Although it has not yet been proven to be effective, passive immunotherapy with survivors’ blood (convalescent plasma) could be an effective treatment for the tens of thousands of people projected to battle Ebola. Indeed, research into the biological and clinical progress in survivors is critical to a further understanding of Ebola.

Third, unlike most foreign response staff, survivors speak local languages, understand cultural dynamics and may be viewed more favourably than outsiders during this time of intense fear and community mistrust. Hence, they could care for the sick in both medical and home-based settings. Employing trained Ebola survivors as caregivers would also give them a source of income in a context of increased poverty and stigmatization.

Finally, Ebola survivors may play a role in generating an effective, community-based response in exposed localities. Community-initiated actions in epidemics are recognized as important to public health, and have already been proven successful in an African context. For instance, over the past 15 years the Treatment Action Campaign (TAC) in South Africa has generated an effective, nationwide social movement among those HIV-positive, stigmatized, and deprived of treatment. A comparable movement among Ebola survivors could establish their effectiveness as advocates and educators, countering stigma and building community trust.

Therefore, for all these reasons, we advocate creating and expanding initiatives to identify, recruit and train the recovered for roles they might desire. Adults known to having been infected and recovered should be identified through medical records and community leaders, as well as recruited through public messages. Their immunity can be established through blood tests.

Interested survivors could be trained in essential caregiving roles, allowing non-immune staff to move to positions that minimize their exposure to Ebola. In this way, infections and mortality among healthcare workers would be greatly reduced. Survivors trained as community advocates and educators could teach others how Ebola is transmitted and could mitigate misinformation. They could also help families and communities to understand the necessity of isolating those who are symptomatic and of avoiding contact with their bodily fluids.

To counter stigmatization of survivors as carriers of disease, public health campaigns will be needed to inform affected communities that the recovered pose no threat to the uninfected and, rather, have an important role in controlling the epidemic and caring for the sick. Training, remuneration and perhaps assignment of an honorific title should raise the status of survivors and counter stigma.
Survivors can give hope and emotional support to both the uninfected and infected by demonstrating that life can go on after Ebola infection.

Slowing and then stopping the spread of Ebola in West Africa is not only crucial to the region, but also to public health around the world, as demonstrated by the recent spread of the virus to Spain and the USA. But overcoming the crisis wrought by Ebola will require sustained action, cultural insight, and cooperation among affected communities and international responders. Training survivors has the potential to save untold thousands of lives and decrease the likelihood of infections spreading to unaffected populations. The United Nations International Children’s Emergency Fund (UNICEF), Médecins Sans Frontières and Partners in Health have recently initiated interventions that incorporate Ebola survivors, thereby supporting the feasibility of our proposal.7,8

Survivors of the epidemic have a vital role to play in the recovery of their own communities and nations beyond the current outbreak. Even after Ebola transmission is controlled in West Africa, survivors who are trained as caregivers, community health educators and advocates can continue these supportive roles, helping to strengthen their countries’ poorly resourced and understaffed healthcare systems.

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References