

Do health interventions support peace through “disaster diplomacy”?

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Health problems and health interventions do not stop in conflict zones. Conversely, many health-related topics fail to be addressed adequately because conflict interferes with health systems, health personnel, and health-related actions. Based on these experiences, health diplomacy, medical diplomacy, and vaccine diplomacy have developed as fields of research, policy, and practice. From the “Journal of Health Diplomacy” initiated in 2013 to the United Nations World Health Organization’s (WHO) “Health as a Bridge for Peace” programme, academics, decision makers, and practitioners have been examining and trying to apply health work for diplomatic, peace-related, and conflict resolution endeavours.

Intersections with other fields can assist in determining the effectiveness of health-peace interactions. Certain large-scale health problems, namely epidemics and pandemics, are disasters with numerous efforts aimed at connecting health-related and disaster-related approaches to learn from each other. Disease outbreaks might be relatively sudden, such as Ebola Haemorrhagic Fever or Severe Acute Respiratory Syndrome (SARS), paralleling sudden-onset hazards including earthquakes and hurricanes. Diseases can also represent chronic conditions, such as malaria, Human Immunodeficiency Virus / Acquired Immune Deficiency Syndrome (HIV/AIDS), and obesity as a non-communicable disease matching longer-term hazardous conditions such as water drawdown leading to perpetual drought or hazard influencers such as contemporary climate change. Vulnerability more closely aligns epidemics and pandemics with disaster-related work, since factors augmenting or diminishing vulnerabilities tend to be the same across all disasters, including diseases.

Disaster-peace interactions might then contribute to understanding health-peace connections. One framework for analysing and interpreting the impact of disaster-related work on peace and conflict is disaster diplomacy. Disaster diplomacy investigates how and why disaster-related activities do and do not influence conflict and cooperation, including through diplomacy- and peace-related activities. Disaster-related activities include post-disaster work such as relief, reconstruction, and recovery; pre-disaster actions incorporating preparedness, mitigation, and planning; and efforts during a disaster which could be emergency response and search-and-rescue.

Disaster diplomacy research has examined dozens of case studies around the world. These include inter-state, intra-state, and non-state relations in the context of disaster-related activities. Multiple forms of hazards and vulnerabilities, as well as how they combine to generate risks, have also been explored. This work indicates how they might influence different forms of conflict, both violent and non-violent, and dealing with conflict, such as peace and diplomacy, as well as actions which could and should be taken in disaster diplomacy contexts.

No case studies so far have shown that new, lasting peace endeavours have been initiated or fully supported by disaster- or humanitarian-related imperatives. Where reasons

already existed to push forward with conflict resolution processes, disaster-related work often bolstered these efforts or spurred them along in the short-term. Over the long-term, non-disaster factors such as leadership changes, trade or economic interests, and historical grievances typically superseded the disaster-related factors for influencing peace and conflict.

An example is the December 26, 2004 Indian Ocean earthquake and tsunami disaster, killing perhaps 250,000 people across more than a dozen countries. In the wake of this disaster, a peace deal was reached in Aceh, Indonesia, ending three decades of violent conflict over disputes which stretched back much further. While the devastation opened a political space in which peace could be achievable if the parties sought it, the negotiations had started two days before the earthquake and tsunami as a culmination of months-long efforts to end the violence. The disaster supported, but did not initiate, the peace. Conversely, the tsunami disaster and post-tsunami humanitarian relief work in Sri Lanka was used by many parties as excuses to continue the violence in the conflict there. Meanwhile, dozens dead in Somalia did not demonstrate clear influence on the continuing violence in that country.

Does this conclusion apply to health-related work? For disease diplomacy, do the same results emerge that disaster sometimes catalyses, but does not appear to create, peace, although this catalysis effect is witnessed only in the short-term? In any case, why would the absence of disease diplomacy preclude health-related efforts? Here, disease eradication including vaccine diplomacy is examined as a case study for disaster diplomacy to address these questions.

Disease diplomacy case studies emerge not just from the modern era. After Edward Jenner's smallpox vaccination succeeded, he became venerated across Europe to the extent that, in the nineteenth century, England and France asked him to mediate prisoner exchanges. No long-term diplomacy results were identified from this work. Using disease for warfare goes back even further. The bodies of people who died from plague were catapulted into locations under siege, a technique thought to have brought the Black Death to Europe in 1346 at Caffa which today is located in the Ukraine.

More recently, systematic global efforts to eradicate diseases have entailed working in war zones. Irrespective of medical outcomes, no indications have been seen of the efforts affecting peace or conflict—but this result does not mean that the medical outcomes are pointless. Following on from Jenner's smallpox success, saving many lives over decades, WHO in 1967 ramped up efforts against the disease which meant vaccinating during civil wars and overcoming discrimination against minorities alongside distrust of the programme. Following the last documented smallpox death in 1978, when a medical lab accidentally released the virus at the University of Birmingham in the UK, a formal declaration of global smallpox eradication was issued and accepted in 1979-1980.

Throughout this campaign, which has been a resounding success in terms of disease deaths avoided, few efforts were made to tackle wider issues inhibiting vaccination, such as violent conflict in Ethiopia and marginalisation of lower castes in India. Nor did the eradication campaign appear to have any tangible impact on these social issues. Instead, the campaign kept the vaccinations separate from the other topics, taking advantage of the virus' characteristics which made it easy to identify and target infected people as well as the vaccination's portability and high effectiveness. Through household-by-household surveillance and isolating infected people to avert transmission, the eradication programme achieved its goal and is to be commended for it, but without any clear spillover into disease diplomacy.

The focus on smallpox as a medical, not diplomatic, concern might have been the key political impetus needed to reach the goal of eradication. Arguably, smallpox eradication should have remained as a medical goal only, without attempting to link to wider political topics such as marginality and peacebuilding. Had disease diplomacy been attempted, it is possible that eradication would have been inhibited by overtly politicizing the process.

Nowadays, rather than smallpox eradication being a conduit for peace, the main discourses regarding smallpox are about it as a weapon of war. Countering bioterrorism and biological warfare uses smallpox as an example. In 2002-2003, the US vaccinated military personnel and offered the vaccine to first responders who might need to deal with deliberate releases of the virus. A handful of deaths, disabilities, and critical illnesses resulted.

Rinderpest, a virus killing animals including livestock, was the next disease for which targeted eradication succeeded. Estimates of rinderpest deaths run into hundreds of millions of cattle alongside devastating wildlife, knocking out food supplies and livelihoods with a subsequently enormous tally of human casualties through starvation and the undermining of pastoralist cultures. Following the failure of some eradication efforts, 1994 witnessed the beginning of a new campaign using participatory development processes to engage affected people for surveillance and then for applying an effective and stable vaccine. This balance of people and medicine overcame suspicion and ensured that the campaign would reach areas with violent conflict and other security difficulties. After the disease appeared to have disappeared by 2010, eradication was formally declared in 2011.

As with smallpox, the rinderpest eradication programme was not explicitly linked to wider concerns, such as aiming to solve conflicts or involving people in peace processes. As with smallpox, focusing on the intervention as a health topic only might have contributed to the success of the eradication. Yet the participatory epidemiology left an important legacy of local interest and involvement in monitoring and responding to disease. Any results (or absence thereof) from these local health services have not been fully documented, so it is unclear how long they have lasted or will last, nor how effective the legacy has been. Similarly, building such local capacity can contribute to interest in bottom-up endeavours for other challenges faced, including conflict.

In fact, freedom from rinderpest means that people's livelihoods and income bases are stronger, with prospects for time, interest, and resources to address ongoing vulnerabilities and conflicts—or perhaps even to strengthen them, as sometimes occurs. The key is that rinderpest eradication gave people more choices and resources regarding their lives and livelihoods, although they still must operate within the wider geopolitical environment and power relations. Certainly, discussion on conflicts and on peace deals in rinderpest-afflicted locations—for instance, the waxing and waning peace in and around South Sudan and Ethiopia-Eritrea—does not attribute influence to rinderpest or its eradication campaign.

Ongoing disease eradication campaigns are prominent for dracunculiasis (also called Guinea worm disease), malaria, sleeping sickness, measles, rubella, HIV/AIDS, and polio—alongside numerous non-communicable diseases including some related to mental health. Here, dracunculiasis, measles/rubella, and polio are explored within a disaster diplomacy framework.

Guinea worm is a parasite which grows in people after they have ingested it when drinking water that is contaminated with small crustaceans infected by larvae. After expanding in an infected person, the worm causes a blister which ruptures, so the infected person soothes their pain in water and the larvae are released to be ingested by the crustaceans. In the early 1980s, an eradication campaign began which focused on safe drinking water while working with infected people to cool their blisters and to rid themselves of the parasite without re-introducing it into water supplies. By 1990, dracunculiasis was prevalent in only twenty countries. In mid-2015, only Chad, Ethiopia, Mali, and South Sudan remained on the list, all of which had violent conflict inhibiting the eradication campaign and some of which displayed increased incidences of the disease during violent episodes. Concerns were also raised about infected people fleeing war, thereby carrying the worm to other locations.

Eradicating dracunculiasis includes both social and technical measures, respectively behavioural change to break the parasite's cycle and provision of clean drinking water. Possibilities for using these activities to promote peace or to end conflict tend not to be explicitly addressed. The work highlights the medical problem of the infection, succeeding at eliminating the disease—so far, apart from conflict-ridden locales.

Similarly for measles, the eradication programme has been seen as a medical effort, using vaccination which is justified based on clinical characteristics and projected economic gains. Linking it to wider diplomacy or peace endeavours has not directly been part of the equation, while knowing, as with all other diseases, that vaccination programmes in war zones would be necessary. As the programme progressed, targets were set, particularly with an eradication date of 2020 fixed in 2010 which led to the 2012 “Measles and Rubella Initiative” aiming to eradicate both diseases. With the deadline approaching, significant advances have been made, yet marred by setbacks. January 2019 witnessed New York state's worst measles outbreaks in a generation following on from March 2017's outbreaks around Europe. Anti-vaccination groups (anti-vaxxers) are still prevalent in several affluent countries, promoting a resurgence of measles irrespective of peace or conflict.

In fact, the challenges remaining for the measles eradication campaign are not explained as being medical. They emphasise war, displaced people, and politics especially in terms of poor health systems, as with dracunculiasis. No intimation is made that eradicating disease could be used to try to solve these problems or that it should be part of the efforts. While solid health systems and lack of conflict seem to be necessary to eradicate measles in most countries, it is not clear that measles eradication could precipitate such actions, nor is it clear how to deal with prevention and eradication in countries with better health systems, less conflict, and anti-vaxxers.

Polio relates a similar tale. American-Soviet collaboration during the Cold War helped to develop and distribute the polio vaccine with limited indications that it would bring peace between the two blocs, even while creating trust and fostering exchange. The polio eradication campaign began in 1988, highlighting it as a medical challenge aiming for a medical outcome. Now, the campaign generally accepts that it is not yet complete primarily due to politics, especially violent conflict which, at times, directly targets personnel working on the campaign. Discussions consider strategic changes away from specific diseases as medical targets towards promoting child health overall.

These conversations should not diminish the successes of the eradication campaigns, including in substantially reducing polio globally. Numerous countries in conflict have also managed ceasefires for vaccinations, particularly for children, with examples being Sudan, Sri Lanka, Somalia, Sierra Leone, Liberia, the Democratic Republic of Congo, and Afghanistan. Once the vaccination campaign had stopped, so did the ceasefire meaning that each war continued. The parties involved supported the medical interventions, possibly even to the extent where polio was eradicated in some of the countries, but had little interest in using the opportunity to build trust for pursuing less violent pathways. This situation does not mean that vaccination should be avoided, instead indicating that a focus on medical goals leads to significant success for those goals, but not necessarily all the way to eradication.

Indeed, distrust can emerge. In Northern Nigeria in 2003, local governments organised a boycott of polio vaccinations based on rumours of plots to introduce diseases and sterility into the population. This boycott occurred in the wake of the US-led wars in Iraq and Afghanistan after the 11 September 2001 terrorist attacks. The deaths of several children in Nigeria from a trial of meningitis antibiotics fomented the distrust. The lack of vaccinations led to polio spreading to countries in three continents. The dispute was eventually resolved by convincing religious leaders to proclaim the safety of the vaccines and the importance of supporting vaccinations.

In addition to Nigeria, conflict nonetheless continues in Sudan, Somalia, the Democratic Republic of Congo, and Afghanistan. Sri Lanka's peace was reached when the country's army defeated the other groups. The conflicts in Sierra Leone and Liberia also ended for reasons unrelated to vaccination or other health-related endeavours.

No claim is made here that disease eradication should definitely be linked to wider diplomacy or should stop in the absence of wider diplomacy. Achieving ceasefires, even if short-term and temporary, demonstrates that peace might be possible and assists in disease eradication. While false hopes might be raised, a temporary ceasefire can inspire people by demonstrating what is feasible. Moreover, if peace is reached, a vaccinated population is much healthier for recovery and has one less development challenge to worry about. The fundamental point is not to assume that health interventions will definitely create peace or that this effort should be pursued, while not losing hope that the possibility exists.

It is about determining what has and has not happened with respect to disease diplomacy—and why, in order to do improve for continuing and future work. Smallpox and rinderpest have been eradicated with substantial and impressive strides made for many other diseases. Meanwhile, the counterfactual is impossible to prove. Would actively linking eradication programmes and conflict resolution have helped or hindered the health goals? Or perhaps it would have made little difference to either disease eradication or to war.

The timeframe is not easy to define. Is there a specific length of time after a disease intervention during which diplomacy must occur for the two to be linked? The literature is certainly missing long-term, in-depth analyses of the influence, or lack thereof, of specific disease eradication programmes on specific conflicts. How would all other factors influencing peace be considered when analysing the impact disease eradication? Some advocating for global health as a foreign policy and as public diplomacy are optimistic that medical interventions can play a decisive role in diplomacy. Others recognise the multi-faceted nature of peace endeavours, accepting that health can play a role at times but should sometimes not be considered as a major factor. The main lessons are to know the contexts and to be responsive to those contexts, avoiding presumptions that disease eradication must or must not be used to achieve diplomatic outcomes. Nor should disease eradication necessarily be stopped if it is clear that conflicts will remain uninfluenced.

In the case studies examined, disease eradication—through vaccines, behavioural change, and sometimes associated lifestyle alterations—has not led to new, lasting diplomacy, despite some short-term successes. This statement repeats the overarching disaster diplomacy conclusion.

Disease eradication has nevertheless achieved impressive successes for the eradication goal, suggesting that avoiding disaster diplomacy connections might be a factor in the observed positive outcomes. Conversely, despite significant steps forward in ongoing efforts, finishing eradication of several diseases is stymied by conflict. Disease eradication would likely proceed more quickly if the conflicts were solved first, but nor should the efforts wait until all conflicts are resolved, because many medical goals can be achieved irrespective of conflict.

The barriers should also be articulated directly, again explaining the contexts and developing contextual approaches for specific barriers. For instance, a major factor curtailing ongoing disease eradication efforts is lack of financial resources. Meanwhile, polio vaccination workers being murdered in Afghanistan and Pakistan, and similar security concerns in places where diseases remain endemic, impede vaccination efforts. Distrust is bred by broader political machinations. Vaccinating against hepatitis B was the cover story used in Pakistan as part of tracking down Osama bin Laden to kill him. Nevertheless, when time is taken to work with the local population and to highlight the importance of saving children's lives, results for disease can be achieved. That is, the disease eradication successes might emerge specifically

by avoiding disease diplomacy connotations, but the resources might not be adequate to pursue the eradication goals fully.

Other disease diplomacy efforts require analysis from a disaster diplomacy perspective to determine if the typical disaster diplomacy pattern is witnessed beyond disease eradication. International disease surveillance, monitoring, and response, with the International Health Regulations being a prominent legal mechanism, could be a useful investigation for better understanding impacts beyond disease. Transboundary outbreaks providing case studies include SARS, Ebola, swine flu, and avian flu. How isolated are international health approaches from other diplomatic regimes? How much influence exists from them or on them, which might be related to other diplomatic efforts? How might modern efforts in disease diplomacy compare with historical approaches, such as quarantine to avoid the spread of plague?

Similar analyses are seen for a variety of medical diplomacy instances. Following the Hurricane Katrina disaster along the American Gulf Coast in 2005, several countries with political conflicts with the US government offered medical assistance. China said they could send medical experts; Cuba suggested providing hundreds of doctors along with medical supplies; India would contribute medical equipment and personnel; and Russia proposed supplying water and medicines. Most of these offers were declined, partly because the US government was not certain how to manage the offers and partly because the US government did not wish to be seen accepting support from countries with political hostilities towards the US. Relations between the US and these countries experienced no identifiable impact, positive or negative, from the offers or few acceptances. Even when Mexico's medical supplies were delivered to Katrina-impacted US communities by Mexican army vehicles, US-Mexico relations were not tangibly influenced. That is, post-disaster medical assistance was not seen to affect political conflict.

A pattern of declining to accept aid should not necessarily discourage countries from offering assistance. After all, the motivation for trying to assist might not be for political gain or to demonstrate strength, but rather to assist people in need. In the realm of politics, though, making an offer which is refused or ignored could appear to be a humiliating loss of face for the donor. Political conflict might increase as a result. No matter how humanitarian, neutral, or impartial aid is assumed to be, or how much it is proffered in good faith, the reality of politics can sometimes undermine the best of intentions to help disaster-affected people.

Plenty of other case studies exist, but without in-depth analysis. Over the past few decades, North Korea has on several occasions accepted medical aid. For example, in 2009, swine flu medicine from South Korea reached North Korea without any substantive diplomatic consequence, positive or negative. Meanwhile, US non-governmental organisations have been building up health-related cooperation within North Korea. None of these efforts has yet been linked to the ebbing and flowing of North Korea's relations with other countries. The apparent rapprochement between the US and North Korea in 2018, followed by its apparent collapse in early 2019, has not been linked to health-related or disaster-related activities.

Despite disaster diplomacy's current analysis of failure being similar for disease diplomacy, hope from disaster diplomacy might also be similar for interactions between disease outbreaks and peace. One limitation of both disaster diplomacy and disease diplomacy work is that long-term analyses have not been completed, even for historical examples such as Jenner's mediation. Attribution is a particular challenge over longer time scales. If peace is reached five or fifty years after a health intervention, would it be possible to demonstrate that the health intervention did or did not play some part? And if health and diplomacy goals are met, how important is it to determine undisputed attribution?

The typically short timeframes covered by studies thus far would rarely be able to identify less tangible outcomes that might link disaster and disease diplomacy work. Examples

could be forming networks, changing individuals' minds, and building programmes which then become established and part of local consciousness. Evaluations of health-related efforts from, for instance, the Carter Centre and the Bill and Melinda Gates Foundation could interview individuals to see whether or not viewpoints and hence actions, policies, and politics have altered over the long-term.

Tracking these forms of subtle, long-term results remains a major gap in disease diplomacy research. The evidence from disease diplomacy is, for now, clear that disaster diplomacy does not succeed for health at the first order. Much remains to be fully examined to understand fully the ramifications of a disaster diplomacy framing on health-peace connections.

Recommended Readings

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