

Integrating the Disaster Cycle Model Into Traditional Disaster Diplomacy Concepts

David W. Callaway, MD; Eugene S. Yim, MD; Colin Stack, MD; Frederick M. Burkle Jr, MD, MPH, DTM

ABSTRACT

Disaster diplomacy is an evolving contemporary model that examines how disaster response strategies can facilitate cooperation between parties in conflict. The concept of disaster diplomacy has emerged during the past decade to address how disaster response can be leveraged to promote peace, facilitate communication, promote human rights, and strengthen intercommunity ties in the increasingly multipolar modern world. Historically, the concept has evolved through two camps, one that focuses on the interactions between national governments in conflict and another that emphasizes the grassroots movements that can promote change. The two divergent approaches can be reconciled and disaster diplomacy further matured by contextualizing the concept within the disaster cycle, a model well established within the disaster risk management community. In particular, access to available health care, especially for the most vulnerable populations, may need to be negotiated. As such, disaster response professionals, including emergency medicine specialists, can play an important role in the development and implementation of disaster diplomacy concepts.

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Key Words: disaster diplomacy, disaster cycle, civil-military coordination, disaster management

The theory and practice of disaster diplomacy incorporate strategies for leveraging disaster response activities to facilitate cooperation between parties in conflict. The increasingly complex international geopolitical environment demands a committed rethinking of traditional diplomatic strategies. Globalization, population growth, migration, violent nationalism, and climate change pose myriad consequences that complicate modern intrastate relations as well as traditional disaster response and humanitarian aid missions.¹⁻³

During the past decade, the global community has responded to large-scale disasters with unprecedented levels of philanthropy and humanitarian assistance.^{4,5} With this increased exposure has come a broader movement to capitalize on expanded access for the purpose of promoting peace, facilitating communication, promoting human rights, and strengthening intercommunity ties in the increasingly multipolar modern world. In particular, access to available health care, especially for the most vulnerable, may need to be negotiated.

Disaster response teams frequently include physicians, public health and health policy experts, nurses, and allied health professionals. Many of these professionals have strong interests in human rights, social justice, and community resiliency. However, they are rarely trained in the nuances of diplomacy. Whether by design or chance, these disaster teams function as de facto diplomats, representing their nations of origin. As a re-

sult, it is important for these practitioners to understand the potential implications and second-tier effects of their interventions.

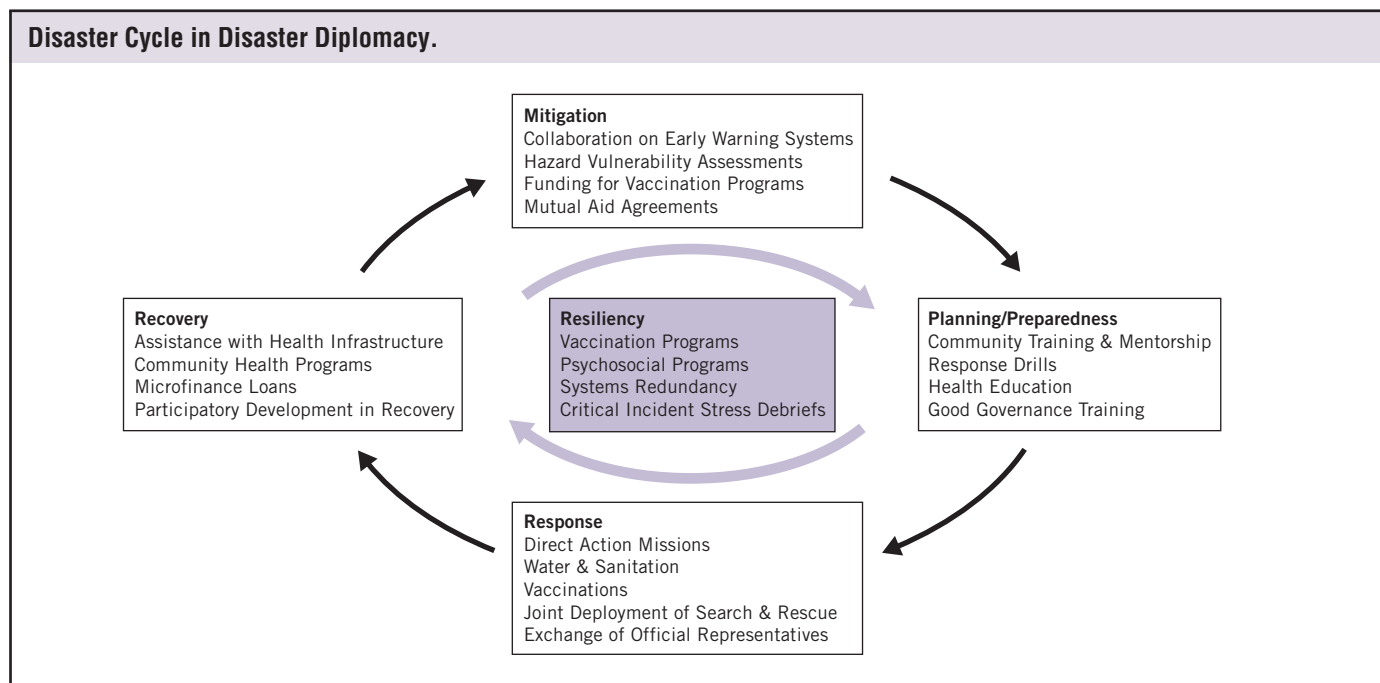
To date, contention over semantics has restrained the scientific investigation and programmatic development of disaster diplomacy. In reality, disaster diplomacy encompasses a wide variety of grass roots assessments, multidisciplinary interventions, and governmental/political health policy agendas. Successful disaster diplomacy is built on the identification of common interests within communities and nations facing dynamic transitional events while known strategies for improving outcomes in complex health and humanitarian emergencies are applied.

This article reviews the current concepts of disaster diplomacy, recommends a new operational framework for application of diplomatic strategies within the disaster cycle, examines two brief case studies, and proposes future steps to facilitate the maturation and application of the specialty.

HISTORICAL DISASTER DIPLOMACY PARADIGMS **Diplomacy Concept 1**

Disaster diplomacy has evolved within two distinct conceptual camps. The first, more conservative, view contends that disaster diplomacy consists of the diplomatic cooperation that derives from a common concern about natural disasters between national governments in conflict.⁶ This characterization confines disaster di-

FIGURE



plomacy to the traditional definition of diplomacy (so-called track 1 diplomacy) that encompasses the management of international relations through official negotiation and interaction between governmental representatives.⁷ The actions of agencies outside of these official channels (eg, physicians, aid workers, nongovernmental organizations [NGOs], or private philanthropists) are not generally considered or accepted as major participants of disaster diplomacy but rather part of a cadre supporting disaster-related cooperation.

This classic model remains important but should not be a limiting paradigm. Globalization, the rising power of nonstate actors, and the proliferation of “ungoverned” or fragile regions demand augmentation of the diplomatic tool box.

Diplomacy Concept 2

As diplomatic relations expand from classic “state-to-state” relations toward more public diplomacy efforts, the engagement of individual citizens and local organizations is critical. Joseph Montville defined this process as “track 2 diplomacy.”⁸ Practitioners of track 2 diplomacy are academics, social activists, and retired officials who engage in dialogue and low-key, nonbinding discussions to generate legitimacy, accountability, and transparency and build confidence.

Recently, the concept of track 3 diplomacy has also emerged, emphasizing grassroots engagement to rebuild social capital and create a peace constituency. It is within track 2 and track 3 diplomacy that the second camp considers disaster diplomacy to be most relevant. These practitioners argue that disaster diplomacy encompasses the extent to which all disaster-related ac-

tivities promote diplomatic exchange and induce cooperation between parties in conflict. In this model, personal interactions between responders and community members in the field are critical to building trust and creating effective organizations on which diplomatic efforts can grow. This perspective is particularly concerned with how disaster-related activities influence international affairs and intrastate conflicts. The definition of *disaster* used in this conceptualization is broad, encompassing not only rapid-onset events such as earthquakes but also events with a more deliberate course, such as droughts, famine, and epidemics.

DISASTER DIPLOMACY AND THE DISASTER CYCLE

The rigid adherence to the divergent views of the aforementioned tracks has contributed to a disjointed development of disaster diplomacy. In reality, all three diplomacy tracks are critical to full-spectrum disaster diplomacy. To reconcile the two views and to begin developing a unified conceptualization, we recommend integrating the diplomacy tracks into the *disaster cycle* model framework. The expanded disaster cycle describes a pattern of four reactionary phases: mitigation, planning/preparedness, response, and recovery. The concept of resiliency is woven throughout each phase of this cycle. The disaster cycle framework offers a useful canvas for illustrating the multiple tiers in which disaster diplomacy can be integrated into existing operational disaster paradigms (Figure).

The consequences of disasters are determined by a nuanced balance between vulnerability and resilience. All systems, including governments, operate on a continuum ranging from order to chaos.⁹ When disasters strike, governments and communi-

ties must invariably change their operating procedures. For example, the August 17, 1999, earthquake in Kocaeli, Turkey, resulted in an estimated economic loss (including the loss of industrial production, lost wages, and recovery) amounting to more than \$20 billion (~10% of Turkey's gross domestic product).¹⁰ The unexpected cost changed spending priorities, affected social programs, and altered regional economic relationships. The resulting population displacement, social upheaval, and ecological changes created micro- and macroprocesses that have long-term effects on communities.

Understanding the microprocesses allows disaster responders to link their actions to larger macrodiplomatic changes. Application of this knowledge throughout the disaster cycle is critical for the implementation of a successful disaster diplomacy strategy. Broadly, the disaster cycle is broken into four phases: mitigation, planning/preparedness, response, and recovery.

Disaster *mitigation* begins with an understanding of community vulnerability. Initial efforts should identify risk and vulnerability. Subsequently, in concert with local leaders, activities such as community outreach and public education projects, infrastructure development, and hazard vulnerability assessments are designed. These efforts are critical for effectively mitigating the human impact of disasters. For example, in spite of the US embargo of Cuba, the two nations collaborate closely on hurricane tracking, storm prediction, and regional consequence management. The exchange of scientific information improves regional response while allowing for maintenance of low-level political engagement, improved cultural awareness through professional conferences, potential for technology sharing through joint monitoring and assessment missions, and some degree of informal dialogue.

The *planning* or *preparation* phase provides unique opportunities for the nonemergent application of disaster diplomacy. Joint training exercises, academic exchanges, and multinational hazard vulnerability assessments can foster intergovernmental relationships and can illuminate the conditions or processes that facilitate or inhibit constructive postdisaster response. For example, the US Pacific Command has recently committed significant funding, material, and training for earthquake preparedness in Nepal. A relatively small nation, Nepal is strategically located between the two emerging powerhouse nations of India and China. Although the US Agency for International Development (USAID) serves as the lead agency in the relationship, the US Department of Defense (DoD) functions effectively as the United States' quick reaction force for both conflict and disaster response. As a result, their contribution to disaster diplomacy in Nepal is paramount. The foundations for full-spectrum disaster diplomacy are laid during the *mitigation* and *planning/preparation* phases.

The *response phase* is the most dramatic and visible stage of the disaster cycle. It is during the drama of the response phase that disaster responders can either set the scene for future diplo-

matic efforts or create environments that are hostile to further intervention. It is also during this phase that nations may find opportunity to engage in creative and cooperative ways. The dispatch and acceptance of a US International Medical-Surgical Response Team within the Iranian state following the 2003 Bam earthquake highlight many of the possibilities for sudden geopolitical interactions outside the boundaries of diplomatic precedent. More recently, the deployment of the US Navy hospital ship USNS Comfort and the 82nd Airborne Division to Haiti in response to the devastating 2010 earthquake illustrate a significant opportunity for disaster diplomacy, potentially boosting the US image in the Caribbean and Latin and South Americas. These efforts are important to counter the ideological support of more authoritarian regimes, such as that of Venezuelan President Hugo Chavez. Rigorous observation and evaluation will be required to determine whether these response and recovery efforts legitimately lead to effective development and governance changes for the future.

The *recovery phase* of the disaster cycle occurs during the transition from immediate humanitarian relief toward longer-term development aid. It is critical to investigate and understand the policies and interventions that drive and sustain constructive processes. These processes allow for culturally sensitive and appropriate disaster efforts. The recovery phase encompasses rebuilding efforts, community redevelopment, building community resiliency, education, and the potential institution of future *mitigation* strategies. Maintaining the cache of diplomatic momentum built during the response phase is the objective and challenge of this period. Focus should be placed on both strengthening existing channels of diplomacy and aggressively pursuing new avenues for exchange. During the recovery phase, targeted economic assistance, health system reconstruction, and infrastructure hardening can be used to strengthen diplomatic relationships between nations.

Disaster *resiliency* describes the ability of social units (eg, communities, families, or organizations) to limit the consequences of disasters and conduct recovery operations that minimize social disruption while mitigating the effects of future disasters. Resiliency is broadly defined and includes activities ranging from building redundant operating systems (eg, cellular phone towers with overlapping coverage) to community psychosocial interventions.¹¹ The increased discussion of resiliency strategies in the disaster literature reflects a more thorough understanding of risk, vulnerability, and recovery. Community resiliency efforts should be woven through all phases of the disaster cycle.

CASE STUDIES IN DISASTER DIPLOMACY

Full-spectrum disaster diplomacy describes the application of track 1, 2, and 3 engagement through all components of the disaster cycle (Figure). Partial-spectrum disaster diplomacy is more limited and, in practice, is generally conducted during the response and recovery phases. The two case studies illustrate the conceptual complexity and operational diversity of non-conflict-related disaster diplomacy, while also demonstrating

TABLE 1

Questions to Consider When Examining Potential Case Studies in Disaster Diplomacy^a

- Did disaster activities influence (negatively or positively) diplomatic activities?
- Is the disaster-related diplomacy *new* or capitalizing on an existing framework?
- Did disaster-related activities result in legitimate attempts by both parties to seek closer ties?
- How long did the disaster diplomacy last?
- Were there quantitative or qualitative improvements in relations as a direct result of the disaster-related engagement?
- Does postdisaster diplomacy depend on characteristics of postdisaster reconstruction?
- Does postdisaster diplomacy address longstanding development and sustainability issues?
- How were governmental (local and foreign) efforts integrated with civilian response efforts?

^aAdapted from Kelman³⁴

how the process can be effectively contextualized within the disaster cycle. There are several critical questions to keep in mind when examining case studies in disaster diplomacy (Table 1).¹² These questions should serve as a starting point for discussion on specific cases.

Hurricanes and US-Cuban Disaster Diplomacy

Disaster and medical diplomacy are key components of Cuba's foreign policy. President Fidel Castro deliberately used full-spectrum disaster diplomacy to foster new relationships, strengthen existing ties, and win international popular support. Cuba's earliest forays into disaster diplomacy focused on the response and recovery phases, deploying response teams to the 1960 earthquake in Chile and the 1972 earthquake in Nicaragua. Both countries were outspoken opponents of the Castro regime at the time. During the following three decades, Cuba continued to deploy physicians to Nicaragua and to offer free scholarships to Nicaraguan medical students. Partly in response to Cuba's interventions, both nations softened their anti-Cuban rhetoric and warmed relations. Nicaragua is now one of the staunchest supporters of re-accepting Cuba into the Organization of American States.

Cuba has continued to emphasize response and recovery, as demonstrated by its deployment of the Henry Reeve Brigade to China after the 2005 earthquake. This deployment coincided with China's decision to replace gratis the aging (Russian-built) public bus system in Havana with a fleet of new Chinese vehicles. As free public transportation is a critical component of life in Havana, this effort certainly has helped to placate domestic unrest in Cuba.

After its early successes, Cuba integrated medical internationalism and disaster response into its national foreign policy. The nation developed additional strategies to engage nations during the mitigation and planning/preparedness phases. Cur-

rently, the small island nation maintains more than 40 000 medical workers in more than 100 countries around the world, serving as ideological diplomats.¹³ Although activities have focused often on countries with close ties to Cuba, they have also occurred in the context of strained international relations. For example, in 1990, Cuba responded to an earthquake that struck Iran, even though Cuba's close ties to Iraq in the 1980s had strained Cuban-Iranian relations. Cuba's disaster response prompted a notable change in relations between Cuba and Iran. In 2006, the two countries signed an agreement that expanded international cooperation in banking, agriculture, and health. Insofar as these activities have improved relations with previous nonallies of Cuba, they have illustrated the concept of disaster diplomacy in action.

Cuba's heavy reliance on disaster diplomacy as a pillar of foreign policy is most dramatically demonstrated by its recent collaboration with Venezuela. The relationship also illustrates the frequent overlap of health and disaster diplomacy. From the 1960s through 1999, relations between Cuba and Venezuela were contentious at best. A substantial warming occurred with the election of Hugo Chavez in 1999 and the prompt Cuban response to the devastating floods and mudslides in Venezuela in the same year. Cuba's presence in Venezuela subsequently grew. Now, a decade later, nearly one-half of the 40 000 Cuban health professionals serving around the world are stationed in Venezuela.¹⁴ Currently, Cuban physicians operate 1000 free clinics in Venezuela and provide free medical care to Venezuelans traveling to Cuba. Analysts frequently note that this service endears Chavez to the impoverished segment of the Venezuelan population and is a key factor in his maintenance of power. In addition, this service strengthens the Venezuelan health infrastructure, allows for reallocation of national assets, and potentially builds community resiliency. In return, Cuba receives 100 000 barrels per day of discounted oil, which predictions estimate will result in billion dollars of free oil over the next decade.¹⁵ Venezuela has also served as a loyal ally in political disputes between the United States and Cuba.¹⁶

Cuba's unconventional diplomatic strategies demonstrate the interrelated conceptual and operational origins of health and disaster diplomacy. Cuba's totalitarian government and rigid ideological principles may be advantageous in the application of their disaster diplomacy strategies. Castro clearly defines his limited foreign policy goals and then deploys his assets. In a democracy, foreign policy decisions are more complex, often requiring commitment of both governmental and NGOs. Still, Cuba's success demonstrates that disaster-related efforts can strengthen interstate relations and promote reconciliation consistent with track 1, 2, and 3 diplomacy.

The Aceh Tsunami and US-Indonesian Disaster Diplomacy

The United States has been slowly integrating disaster diplomacy into its broader diplomatic efforts. The United States' response to the tsunami in Aceh, Indonesia represented an example of partial-spectrum transforming to full-spectrum disaster

diplomacy. The United States had limited ground presence in Indonesia before the tsunami and only sparse community engagement projects. As a result, initial disaster relief and diplomacy interventions focused primarily on the response and recovery efforts.

US efforts were organized under the auspices of Operation Unified Assistance, an integrated coalition of US Navy personnel, US Public Health Service personnel, and volunteer health care workers from the NGO project HOPE.¹⁷ The DoD mobilized more than 12 000 servicemen and women supported by millions of dollars in logistical and coordination support. The quick reaction force of the DoD transitioned relatively quickly to logistical, transportation, and communications support for international NGOs and US civilian agencies. The collaborative civil-military response contributed to the immediate relief for the residents of Aceh. In addition, the intervention forged potentially new and positive relationships between Americans and Indonesians and created positive changes in public opinion.^{18,19}

In the medium and long term, the global response resulted in the opening of Indonesia to the international community. The United States' response was part of a larger multinational operation, including, but not limited to, agencies such as the UN Office for the Coordination of Humanitarian Affairs, United Nations Children's Fund, the Red Cross and Red Crescent, and donor agencies such as Australian Agency for International Development, the UK's Department for International Development, the Japan International Cooperation Agency, and USAID. Diplomatic efforts facilitated by the presence of the global community in Aceh contributed to the August 2005 Memorandum of Understanding and the culmination of peace talks between the Indonesian government and separatist groups and helped foster subsequent successful political and diplomatic negotiations.

Continued efforts during the past five years have focused on reducing vulnerability and building resistance through the mitigation and planning phases of the disaster cycle. These efforts are largely initiated and funded by western NGOs. Programs to improve housing, education, and microfinance for the poor are leading to strengthened communities that in turn are both more resilient in the face of disaster and less susceptible to the lures of extremism and violence.

The response in Aceh illustrates several key components of disaster diplomacy: the important role of civil-military coordination and collaboration and the nuance required to deploy track 1, 2, and 3 strategies throughout the disaster cycle, so that they could set the stage for larger political and diplomatic change, leading to further mitigation, planning, and preparation efforts.

FUTURE STEPS

Disaster diplomacy is a natural consequence of globalization, increased severity of natural and technological disasters, and the demand for evolving modes of cultural interaction. Born in field operations, the concept evolved as practitioners noted critical needs, documented successes, and investigated failures. Debates aside, disaster diplomacy has emerged as a potentially valuable strategy in international engagement. Further, disaster diplomacy is an increasingly important component of United States' and other nations' engagement abroad.^{18,19} However, important questions still exist.

Current research suggests that disaster diplomacy efforts primarily function within existing diplomatic channels rather than catalyzing diplomatic progress *de novo*. Some argue that the effects of disaster diplomacy are thought to exist mainly in the short term, while factors unrelated to disaster, such as changes in government administrations, are thought to be more significant for long-term diplomatic progress.²⁰ It is unclear whether these observations reflect inherent limitations in the concept of disaster diplomacy or merely highlight gaps in current practice standards.²¹ Integrating the disaster cycle model into diplomatic planning and decision-making from the outset may prove to catalyze greater awareness of medium- and long-term requirements.

Philosophical and ethical dilemmas also exist regarding the sanctity of traditional humanitarian principles such as neutrality. These concepts, developed in an age of "state on state" conflict, remain relevant, but require rethinking. As Dr Jennifer Leaning wrote, "The dilemma of neutrality is that when humanitarian actors enter the war zones of the post 9-11 world, they have to leave neutrality at the door."²² Dr Leaning's statement is not an overt endorsement of discarding neutrality. Rather, it is a realistic assessment of the current world order in which disaster responders and humanitarians operate. Clearly, the delicate balance between neutrality and access will play a critical role in the development of effective disaster diplomacy strategies.

We offer three concrete steps to address some of these pressing questions in an effort to refine the theory and practice of disaster diplomacy: establishment of a consensus definition, definition of metrics of success, and development of a standardized training framework.

Establish a Consensus Definition

Building on the extensive academic and field work by various groups during the past decade by subject matter experts such as Ilan Kelman, we propose defining *disaster diplomacy* as a full-spectrum strategy that deploys a flexible variety of tactics throughout the disaster cycle to promote regional stability, encourage good governance, support human rights, and strengthen community resilience. This broad definition incorporates the important roles of governmental organizations, the military, NGOs, academe, and individual respondents. However, it also creates a framework for the development of a common language, benchmarks, and metrics. Most critical is that it may al-

TABLE 2

Sample Disaster Diplomacy Curriculum

<ul style="list-style-type: none"> • Principles of Diplomacy • National Security Overview • History of Disaster and Humanitarian Intervention • Principal Actors in Disaster Response • Disaster Response Paradigms 	<ul style="list-style-type: none"> • Negotiation /Crisis Management • Principles of High Reliability Organizations • International Humanitarian Law • Civil-Military Operations • Community-Based Programmatics 	<ul style="list-style-type: none"> • Case Studies in Disaster Response and Disaster Diplomacy • Field Operations Training • Communication Techniques • Information Technology in Health and Disaster • War and Public Health
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ter the current mindset that disaster diplomacy begins and ends with response and immediate recovery.

The ongoing debate regarding the specific components and applications of disaster diplomacy should continue. However, it must proceed in parallel with real-world applications. Policy makers should examine the broad strategic implications of disaster diplomacy and practitioners must continue to examine the (intended and unintended) consequences of their actions. This strategy will allow practitioners and policy leaders to collaborate on funding, research, application, and the integration of disaster response into formal diplomatic and humanitarian efforts. Unfortunately, practitioners have limited capacity to accelerate “best practices” and measures of effectiveness into policy.²³ Once critical mass supports a common definition of disaster diplomacy, qualitative and quantitative assessments can be employed to define the metrics of success and advance the science of disaster diplomacy.

Metrics of Success and a Standardized Assessment Model

Disasters create complex adaptive systems that require strategies to both embrace and offset chaos.⁹ Currently, no dedicated assessment tool exists for disaster diplomacy, and operational models do not guarantee adherence to already established standards. The second step in formalizing disaster diplomacy theory involves the development of an assessment model that can gauge success based on the parameters from the consensus definition.

In general, the assessment metrics can be *context-* or *concept-*specific. The context-specific model is based on predetermined goals specific to each event (ie, country, type of disaster, degree of political instability, development goals, and others). The Logical Framework Process is one model that can be used to develop this type of assessment model.²⁴⁻²⁶ For example, on the island of Hispaniola, the sovereign states of Haiti and the Dominican Republic have maintained a tense but stable relationship. One point of contention relates to Haitian use of scarce Dominican health assets. Accordingly, in response to the January 2010 Haiti earthquake, the Dominican response emphasized support for creating a self-sustaining health infrastructure in Haiti (oral communication, Alejandro Baez, MD).¹ If successful, this approach could benefit Haitians, decrease social tensions between the nations, and facilitate greater national-level cooperation between the governments.

Alternatively, a standardized concept model could be developed for disaster diplomacy. The core of such a model would be derived from the traditional humanitarian standards for disaster response, such as the Sphere Project’s standards, but would also feature a mechanism to evaluate the diplomatic component particular to disaster diplomacy.^{27,28} To be effective, this model would require significant engagement with the diplomatic and foreign service corps. In addition, the concept model requires prospective determination of goals, dedicated research assets, and formal mechanisms for short-, medium-, and long-term programmatic adaptation.

Specialized Programs of Training

As the concept of disaster diplomacy continues to mature, training programs that address the complex nature of disaster response, medical intervention, diplomacy, and international relations must be developed. Emergency medicine professionals frequently serve as social “safety nets” and are often the front lines of disaster responders. Their training in triage, resilience, clinical operations, and communication creates a unique perspective on the communities in which they serve. As such, these professionals naturally assume positions of leadership during crisis. With the participation of these “unofficial diplomats” in the diplomatic process, the need for a specialized training program becomes imperative.

A few “cross-training” opportunities exist within current professional programs. In the related field of health diplomacy, for example, the Summer Programme on Global Health Diplomacy at the Graduate Institute of International Studies and the Academy of Global Health Diplomats has been launched to facilitate discourse and to provide focused training for health professionals engaged in health diplomacy.²⁹ A dedicated training program for disaster diplomacy would draw from this model to address the unique characteristics of disaster response as it intersects with foreign policy and international relations. Multiple avenues exist to achieve this goal. A sample curriculum is outlined in Table 2.

Last, the concept of “building peace through health” that began in the 1980s with support from NGOs, the World Health Organization, and academe supports our thesis that disaster health interventions are useful in bringing together “embattled actors” to foster diplomacy and peace within disputed regions while contributing positively to the stability of nations.³⁰⁻³⁴ A government that leads militarily as a first line of

response risks exposing its own weaknesses. Clearly, disaster diplomacy must reflect awareness that all social movements, including those that eventually foster terrorism, have similar roots in unmet economic, social, and development needs for their community. This concept best requires prevention before response—an area that needs further attention under the broader rubric of disaster diplomacy.

CONCLUSIONS

Disasters are not democratic. They disproportionately affect the poor and disenfranchised living on society's margins. These marginal regions are exactly where the current and future threats to humanity are also emerging. Social inequality and injustice are factors in the growth of global terrorism, while population displacement leads to accelerated environmental degradation. Although research on the social consequences of disasters is mixed, effective intervention during the planning, preparation, response, and recovery phases of disasters has a positive effect on outcomes. Disaster response offers a unique opportunity to transcend boundaries and overcome prejudices, build unity and accord, and strengthen community resilience. The disaster cycle-centric model of disaster diplomacy has emerged from this realization, and provides a framework for using disaster response to improve relations and facilitate collaboration, cooperation, and coordination.

Author Affiliations: Unconventional Diplomacy Group (Drs Yim and Stack), The Operational Medicine Institute, Beth Israel Deaconess Medical Center, Boston (Drs Callaway, Yim and Stack); and Harvard Humanitarian Initiative, Harvard School of Public Health, Cambridge (Dr Burkle), Massachusetts.

Correspondence: David W. Callaway, MD, Director, The Operational Medicine Institute, Beth Israel Deaconess Medical Center, 1 Deaconess Rd, West CC2, Boston, MA 02215 (e-mail: dcallawa@gmail.com).

Dr Callaway is a Fellow of the Truman National Security Project, Boston, Massachusetts, and Dr Burkle is a Senior Public Policy Scholar, Woodrow Wilson Center for International Scholars, Washington, DC.

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