Cholera in Haiti: A Perfect Storm of Scientific and Legal Uncertainty

Guy R. Knudsen

To date, the Haitian cholera epidemic that broke out in 2010 has killed more than 8,500 people, and sickened another 600,000. Although United Nations (UN) peacekeeping forces have been widely blamed for introducing the bacterial pathogen into Haiti, the UN continues to deny responsibility and rejects demands for victim compensation. Recently, two human rights groups filed a class action lawsuit against the UN in federal court, seeking compensation for cholera victims. The suit, which ventures into largely uncharted waters of international law, takes place against a backdrop of intense and sometimes rancorous scientific debate about the human and environmental determinants of the epidemic. The UN is relying on a two-pronged defensive strategy: first, a defense based on immunity derived from its traditional diplomatic privileges and immunities, which dates back to the organization's founding in 1946. Second, a defense based on a lack of proximate cause, which is bolstered by several prominent scientists' theory that the pathogen may have been endemic to Haiti and only was unleashed by the combined effects of climate change, a devastating earthquake, and unusually violent weather episodes. In this article, I will discuss this evolving dimension of international law, particularly as it is intertwined with ongoing scientific and environmental controversy.

American televangelist Pat Robertson provided a colorful hypothesis for the earthquake that devastated Port-au-Prince and surrounding regions earlier in 2010. According to Robertson, in the years when Haiti was under the heel of French colonialism, the Haitians entered into a pact with the devil, saying in effect, "We will serve you if you'll get us free from the French." And ever since, Robertson continued, "[T]hey have been cursed by one thing after another." http://latimesblogs.latimes.com/laplaza/2010/01/us-televangelist-pat-robertson-links-haiti-earthquake-to-pact-with-devil.html. Even without Robertson's supernatural explanation, it is hard to imagine a country more cursed by the forces of nature with "one thing after another" than Haiti was in 2010, from the massive earthquake in January, to the sudden appearance of a cholera epidemic in October, to the extensive flooding caused by Hurricane Tomas in November.

The island of Hispaniola, which comprises the countries of Haiti and the Dominican Republic, sits on two major seismic fault lines, and seismologists have anticipated a major earthquake for years. The island also lies in the path of perennial hurricanes and tropical storms, with attendant flooding, mudslides, and loss of life and property. Yet, before fall 2010, epidemic cholera was unknown there. Indeed, on March 2, 2010 (a little less than two months after the earthquake), the Centers for Disease Control and Prevention (CDC) noted that "an outbreak of cholera is very unlikely at this time." CDC, *Acute Watery Diarrhea and Cholera: Haiti Pre-decision Brief for Public Health Action*, Mar. 2010, *available at* http://emergency.cdc.gov/disasters/earthquakes/haiti/waterydiarrhea_pre-decision_brief.asp.

The CDC's initial optimism reflected, in part, the fact that epidemic cholera had not been reported from Haiti before. The CDC went on to note that for an outbreak of cholera to occur, certain conditions must be met: ". . . there must be significant breeches (sic) in the water, sanitation, and hygiene infrastructure used by groups of people, permitting large-scale exposure to food or water contaminated with *Vibrio cholerae* organisms; and . . . cholera must be present in the population." *Id.* Epidemiologists commonly represent the necessary conditions for occurrence of a disease epidemic with a conceptual "disease triangle," whose three legs represent essential factors for disease development: a susceptible host population, a virulent pathogen population, and a conducive environment. Theoretically, the absence of any one leg renders epidemic disease occurrence and geographical spread impossible. Yet, by fall 2011, when I arrived to teach a microbiology class at the Université de la Nouvelle Grand'Anse in Jérémie (the major population center farthest from the epicenter of the epidemic), I found that cholera was already present in the city. In less than a year, the disease had spread virtually throughout the country. And by the time of my return to Haiti two years later, the incidence of cholera in Jérémie had increased significantly. When students are faced daily with potential exposure to a deadly pathogen, the classroom discussions about disease become less abstract; to paraphrase Dr. Johnson, the prospect of becoming infected concentrates the mind wonderfully.

A brief look at the epidemiology of cholera may provide some clues to the sudden appearance and rapid proliferation of the disease in Haiti. The Haitian population was susceptible to this disease (most people around the world are), and while prior exposure to the pathogen may impart some limited immunity in a population, that was not the case for Haitians. CDC correctly identified components of the "conducive environment" leg of the triangle: a breakdown of the water, sanitation, and hygiene infrastructure. However, even pre-earthquake, these systems had long been nonfunctional over much of Haiti, especially in rural areas. The final leg of the triangle, presence of a virulent pathogen (certain strains of the bacterium *Vibrio cholerae*), is a true wild card. It is hard to predict where this organism will show up: it is present in high numbers in the feces of diseased individuals (only humans are hosts) and anywhere that fecal material from infected

Mr. Knudsen is professor of microbial ecology and plant pathology at the University of Idaho and a private practice attorney at Northwest Natural Resource Advocates. He may be reached at gknudsen@gknudsenlaw.com.

Published in *Natural Resources & Environment* Volume 29, Number 1, Summer 2014.

people is found, including contaminated water supplies. But the bacterium is also an inhabitant of a variety of natural habitats, especially brackish waters where it associates with certain algae and zooplankton as well as with cyanobacteria (blue-green algae). Rita R. Colwell, *Global Climate and Infectious Disease: The Cholera Paradigm*, Science 274:2025–2031 (1996). Occasionally, persons in the United States have contracted cholera after eating raw contaminated shellfish from the Gulf of Mexico. Some believe that a Chinese freighter introduced the pathogen to waters near Lima, Peru, triggering the 1991 cholera epidemic that killed more than 3,500 people. The organism can sometimes be found in freshwater habitats as well. The bottom line is that it is difficult to predict where and when the pathogen might show up, and it is dangerous to assume that it never will.

Some diseases have relatively characteristic symptoms (e.g., the swollen lymph glands of bubonic plague or the cyclic fever, which is a hallmark of malaria). The primary cholera symptom is less unique: an acute and copious (though painless) watery diarrhea, often accompanied by vomiting. Many people who ingest the pathogen do not become noticeably ill, and many others do not experience serious illness. Typically in endemic areas, approximately 75 percent of cases are asymptomatic, 20 percent are mild to moderate, and 2–5 percent of the cases are severe forms. CDC, www.cdc.gov/cholera/diagnosis.html. However, for individuals who develop advanced symptoms of cholera, dehydration and death can occur rapidly.

For most people in the United States, even the mildest choleralike symptoms would be cause to seek immediate medical attention, which can be as basic as rapid and sustained rehydration with (clean) water and replenishment of electrolytes. In much of Haiti, however, the first clinical symptom of cholera—watery diarrhea—is unfortunately a routine fact of life and can be caused by a variety of agents besides *Vibrio cholerae*. These pathogens share the characteristic of being spread via fecal contamination of food and water. They include norovirus (Norwalk-like viruses), rotavirus, enterotoxigenic *Escherichia coli*, *Giardia*, and cryptosporidia. Clinically, they often are pretty much indistinguishable from each other. Many Haitians endure chronic infections with one or more of these pathogens, so that diarrhea is a very common illness. It is a leading cause of mortality (as high as 16 percent of deaths) among children. So, health officials, including the CDC, were certainly expecting an increase in cases of acute watery diarrhea following the 2010 earthquake. But in October, when some of those cases in the Artibonite region were first diagnosed as cholera and patients started dying in large numbers, the public health establishment was taken by surprise.

The MINUSTAH Connection

In 2004, UN Security Council Resolution 1542 established the UN Stabilization Mission (which in French yields the acronym MINUSTAH) in Haiti. Resolution 1542 called for an initial stabilization force of up to 6,700 military personnel and was renewable. As of November 2013, there are 8,422 total uniformed MINUSTAH personnel in Haiti. www.un.org/en/peacekeeping/missions/minustah/facts.shtml. Perhaps ironically, in retrospect, Resolution 1542 included the clause "Welcoming and encouraging efforts by the United Nations to sensitize peacekeeping personnel in the prevention and control of . . . communicable diseases in all its peacekeeping operations."

As the presence of cholera in Haiti became apparent in October of 2010, attention quickly focused on a contingent of peacekeeping troops that had recently arrived from Nepal and that was stationed at a camp in the city of Mirebalais, about sixty kilometers northeast of Port-au-Prince. The initial wave of cases was reported on October 22; some occurred in town of Mirebalais itself, others down-river in the Artibonite river valley, and others further downstream in the Artibonite delta. No initial cholera cases were found up-river from Mirebalais. Ralph Frerichs, *Cholera in Haiti and the Modern "John Snow," available at* www.ph.ucla.edu/epi/snow/cholera_haiti.html. Reporters visiting the MINUSTAH base claimed that:

> a buried septic tank inside the fence was overflowing and the stench of excrement wafted in the air. Broken pipes jutting out from the back . . . poured out a reeking black flow from frayed plastic pipe which dribbled down to the river where people were bathing. The landfill sites, across the street, are a series of open pits uphill from family homes. Ducks swim and pigs wallow in pools of runoff. The pits abut a steep slope which heads straight down to the river, with visible signs where water has flowed during recent heavy rains. The people who live nearby said both the on-base septic tank and the pits constantly overflow into the babbling stream where they bathe, drink and wash clothes.

Jonathan M. Katz, *UN Probes Base as Source of Haiti Cholera Outbreak*, Associated Press, Oct. 28, 2010.

In fall 2010, when the peacekeeping contingent left Nepal for its tour of duty in Haiti, it left a major cholera epidemic already in progress. Initially, the Nepalese army claimed that all its troops had been being tested for cholera before their deployment to Haiti. However, Brigadier General Dr. Kishore Rana subsequently acknowledged that because none of the troops exhibited symptoms of cholera, no follow-up tests were done. *See Haiti Cholera Outbreak: Nepal Troops Not Tested, available at* www.bbc.co.uk/news/world-south-asia-11949181. Dr. Rana also noted that the UN did not require testing unless a soldier had cholera symptoms (despite the fact that as many as 75 percent of cholera cases may be asymptomatic, especially in countries where the disease is endemic).

By late November, cholera deaths had topped 1,000, and when the CDC reported that pathogen isolates from Haitian victims closely matched strains commonly found in South Asia, protests erupted in several Haitian cities. In Cap Haitien the demonstrations turned especially violent; hundreds of protesters set up burning barricades and threw stones at MINUSTAH troops, and at least one demonstrator was shot dead by a UN peacekeeper.

From the start, the UN denied responsibility for the epidemic and continues to do so. In a December 2010 press conference, Under-Secretary-General for Peacekeeping Operations Alain Le Roy stressed that, "There is no consensus among the scientists on this issue." *See UN Press Conference, 15 December 2010, available at* www.un.org/News/briefings/docs//2010/101215_Guest.doc.htm. Nonetheless, evidence to support the hypothesis that MINUSTAH negligently introduced the cholera pathogen into Haiti continued to accrue, including a comprehensive statistical analysis of the timing

and rate of disease spread (Piarroux et al., *Understanding the Cholera Epidemic, Haiti*, Emerg. Infect. Dis. 17:1161–1168, 2011), and several scientific reports of extremely close genetic similarity between *V. cholerae* isolated from Haitian victims and Asian isolates, including ones from Nepal.

"Voodoo Priests" and "Perfect Lies": A Scientific Slugfest

More recently, news stories originating from a National Public Radio (NPR) blog article and interview with Dr. Rita Colwell of the University of Maryland have provided a different but, some say, weakly documented hypothesis about the origin of the cholera epidemic that continues to ravage Haiti. www.npr.org/blogs/health/2012/06/18/155311990/scientists-find-new-wrinkle-in-how-cholera-got-to-haiti. The impetus for the NPR article was a recent paper that was co-authored by Colwell and which appeared in Proceedings of the National Academy of Sciences (PNAS). *See* Nur A. Hasan, et al., *Genomic Diversity of 2010 Haitian Cholera Outbreak Strains*, PNAS, *available at* www.pnas.org/content/109/29/E2010.full.pdf. The take-home message of the Colwell interview and the Hasan paper was that strains of the cholera pathogen may have resided undetected in the Haitian environment since long before the reported dumping of human sewage by the Nepalese MINUSTAH troops.

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Colwell provided an imaginative, although somewhat strained scenario, in which a resident but previously undetected cholera pathogen was given the chance to rapidly multiply by the "perfect storm" concurrence of the 2010 earthquake, unusually hot summer weather, and Hurricane Tomas. As Colwell described in her interview with NPR, "You have this massive earthquake in January 2010 . . . The geology of Haiti is limestone. With earthquake effects disrupting the rivers, the rivers become very alkaline." (Alkaline conditions often favor bacterial growth.) "Then Haiti had one of the hottest summers on record" (presumably enhancing bacterial growth in warmer-than-usual estuaries) ". . . followed by a hurricane that skirted Haiti, causing heavy rain and flooding . . . .With all river systems churned up with nutrients and warm water, and proper alkalinity, it would be ideal for the organism to become quite dominant." *See Scientists Find New Wrinkle in How Cholera Got to Haiti*, *available at* www.npr.org/blogs/health/2012/06/18/155311990/scientists-find-new-wrinkle-in-how-cholera-got-to-haiti.

Colwell has been a prominent cholera researcher for decades, and her disagreement with what had seemed to be an evolving scientific consensus put her, the "perfect storm hypothesis," and the scientific controversy into the limelight. Much of Colwell's career has revolved around the ecology of *V. cholerae* in the environment, especially in aquatic reservoirs, and one cornerstone of that life's work has been her "climatic hypothesis," which assumes that *V. cholerae* is an aquatic bacterium that happens to infect humans and may remain (epidemiologically) dormant in coastal waters for years, until environmental events disturb that equilibrium, leading to a disease outbreak in human populations. G. Constantin de Magny, and Rita R. Colwell, *Cholera and Climate: A Demonstrated Relationship*. Trans. Am. Clin. Climat. Assoc. 120:119–128 (2009).

Disagreement between the "human causal" and the "climate causal" camps soon became acrimonious. In a March 2013 seminar presented at Rice University's Baker Institute, Colwell explained that, "What happened . . . was that a sequencing was done of a few strains . . . and the leaped-to conclusion was, the Nepal troops brought cholera." And, perhaps unconsciously echoing Pat Robertson's earlier comments about Haiti, Colwell continued, "And then there was riots, some people were killed, they attacked the troops because the, uh, voodoo priests said they were the ones that brought this terrible scourge to their country. . . It was clear to us that this was much more complicated." http://bakerinstitute.org/videos/civic-scientist-lecture-series-rita-colwell-oceans-climate-and-health-cholera-model-infectious-diseases-changing-environment/.

In response, French epidemiologist Renaud Piarroux, who had authored the comprehensive report that was widely accepted as demonstrating the UN's responsibility for the epidemic, noted that Hurricane Tomas actually arrived two weeks after the outbreak began, and that furthermore there was scant evidence of unusually high temperatures in summer 2010. "The perfect storm," Piarroux said, "is a perfect lie." He continued, "This is not a scoop. It means nothing," *See Source of Haiti Cholera Bug Goes under Microscope*, *available at* http://bigstory.ap.org/article/source-haiti-cholera-bug-goes-under-microscope.

A Series of Unfortunate Events or res ipsa loquitur?

Colwell's climate causal theory was eagerly embraced by the UN, as it posits a coincidence of several catastrophic events outside of MINUSTAH control, events ranging from climatic changes caused by the ocean-atmosphere phenomenon La Niña, to the drop in water and sanitation quality following the January earthquake, as the most likely explanation for the cholera outbreak. "Climate change and cholera have a complicated link," Colwell explained in a recent interview. "As far as Haiti is concerned, the disease outbreak was triggered by a complicated set of factors." http://unearthnews.org/2013/08/07/un-peacekeepers-or-climate-change-the-complex-factors-contributing-to-haitis-cholera-crisis/. Along with its positive reception by the UN, Colwell's perspective also was welcomed by some members of the climate change activism community. *See Cholera in Haiti—The Climate Connection*, *available at* www.celsias.com/article/cholera-haiti-climate-connection/.

For many scientific and lay observers, however, the proximate cause of Haiti's cholera epidemic speaks for itself, at least from the perspective of circumstantial evidence. UN peacekeeping troops arrived in Haiti from a country where cholera is endemic. These same troops (allegedly) released raw sewage

into local Haitian waterways, and, soon after there was a sudden outbreak of a disease, in which the pathogen is transmitted via fecal contamination of drinking water in Haitians living downstream—at least some of whom were in contact with the sewage-contaminated waterway. Given such coincident events, it seems hard to attribute the cholera outbreak to chance.

Most American courts recognize the concept of *res ipsa loquitur*, commonly translated as "the thing speaks for itself." The doctrine allows inference of both negligence and causation, if "the accident which occurred . . . is of a kind which more probably than not would not have occurred in the absence of negligence on the part of the defendant." *McKee Electric Co. v. Carson Oil Co.*, 301 Ore. 339 (1986). The molecular confirmation of genetic near-identity between *V. cholerae* strains from Haitian victims and strains from Nepal would seem to put a high-tech nail in the coffin, although such evidence, which is an application of a general set of methods known as microbial source tracking, has not always fared well in US courts. For example, in 2009 the Tenth Circuit Court of Appeals affirmed a district court decision not to enjoin Tyson Foods, Inc. from applying poultry waste to lands within the Illinois River watershed, where manure-associated bacterial pathogens allegedly polluted the river. *Attorney General of Oklahoma v. Tyson Foods, Inc.*, 565 F.3d 769, 774 (10th Cir. 2009). The trial court had rejected expert witness testimony about molecular source tracking techniques, which Tyson Foods' attorney had characterized as looking for "ghost pathogens" *See Closing Arguments Made in Poultry Case*, *available at* http://usatoday30.usatoday.com/news/nation/2008-03-14-453807717_x.htm.

Former President Bill Clinton, the UN special envoy to Haiti and a former attorney himself, was not reticent when he declared that the UN mission, in the form of an infected peacekeeper from South Asia, was "the proximate cause of cholera" (although in the same sentence he mistakenly referred to the pathogen as "a virus"). *Clinton: UN Soldier Brought Cholera to Haiti*, *available at* www.aljazeera.com/news/americas/2012/03/2012384937481848.html. However, the UN quickly responded to Clinton's comments, contending that, "The Secretary-General set up a panel of experts regarding the cholera outbreak. Their conclusion was that it was not possible to be conclusive about how cholera was introduced into Haiti, that the cholera outbreak was caused by a confluence of factors, and was not the fault of, or deliberate action of a group or individual." *Id.*

The independent report cited by the UN was less ambivalent than that statement indicates, and specifically concluded, "The sanitation conditions at the Mirebalais MINUSTAH camp were not sufficient to prevent fecal contamination of the Meye Tributary System of the Artibonite River." Alejando Cravioto, Claudio F. Lanata, Daniele S. Lantagne, and G. Balakrish Nair, *Final Report of the Independent Panel of Experts on the Cholera Outbreak in Haiti*, UN, May 4, 2011. The report went on to explain that the "research findings indicate that the 2010 Haiti cholera outbreak was caused by bacteria introduced into Haiti as a result of human activity; more specifically by the contamination of the Meye Tributary System of the Artibonite River with a pathogenic strain of the current South Asian type Vibrio cholerae." *Id.* In that context, Colwell's "confluence of factors," including such preexisting factors as the lack of cholera immunity in the Haitian population and poor water and sanitation infrastructure, may simply reinforce a variation of the "eggshell skull" doctrine from American tort law, under which a defendant at fault is liable for the full extent of plaintiff's injuries, even if the plaintiff possesses preexisting conditions that dramatically worsen the harm. *See* Restatement (Second) of Torts, § 461 (1965).

A Lawsuit Is Filed, and the UN Invokes Immunity

In November 2011, the Bureau des Avocats Internationaux (BAI, a Haitian civil society organization) and Institute for Justice and Democracy in Haiti (IJDH, a US-based organization) filed a petition to the UN on behalf of 5,000 Haitian cholera victims, demanding accountability for the Haitian cholera epidemic. The petition sought installation of a national water and sanitation system to control the epidemic, compensation for individual victims of cholera for their losses, and a public apology for alleged wrongful acts. *See* www.ijdh.org/cholera/cholera-litigation/#.UuGMFhDTlD8. After more than fifteen months, the UN responded, invoking its immunity from such claims under Section 29 of the Convention on the Privileges and Immunities of the United Nations (CPIUN), adopted by the General Assembly in 1946, which provides that the UN will "make provisions for appropriate modes of settlement" of "disputes arising out of contracts or other disputes of a private law character." http://opiniojuris.org/2013/02/22/un-flatly-rejects-haiti-cholera-claim/. Noting in her letter that the UN is "extremely saddened by the catastrophic outbreak of cholera," and expressing "profound sympathy for the terrible suffering," the UN's legal counsel Patricia O'Brien nonetheless determined that ". . . consideration of these claims would necessarily include a review of political and policy matters" and accordingly were not receivable. http://opiniojuris.org/wp-content/uploads/LettertoMr.BrianConcannon.pdf. By thus implicitly asserting that the BAI/IJDH claims were "public" rather than private due to the political and policy issues they present, the UN decided that the claims were not entitled to consideration, and, furthermore, the decision was not one that could be appealed.

In a July 2013 letter to Congresswoman Maxine Waters (D-CA), UN Secretary General Ban Kimoon continued to avoid acknowledgment of any UN responsibility for the epidemic, noting only "lack of access to clean water and sanitation infrastructure" as a "key factor that facilitated the epidemic." http://www.ijdh.org/wp-content/uploads/2013/07/UNSG-Letter-to-Rep.-Maxine-Waters.pdf. The secretary general reiterated the determination that the BAI/IJDH claim was "not receivable" pursuant to Section 29 of the CPIUN. One potential crack in the UN's façade of immunity appeared in October 2013, however, when UN High Commissioner for Human Rights Navi Pillay stated at a human rights award ceremony, "I have used my voice both inside the United Nations and outside to call for the right—for an investigation by the United Nations, by the country concerned, and I still stand by the call that victims of—of those who suffered as a result of that cholera be provided with compensation." www.huffingtonpost.com/2013/10/08/un-haiti-compensation-_n_4066697.html. Still, Pillay stopped short of saying who should pay for such compensation.

Following the UN's rejection of their petition, the attorneys representing cholera victims filed a class-action lawsuit in the US District Court for the Southern District of New York,

seeking damages for personal injury, wrongful death, emotional distress, loss of use of property and natural resources, and breach of contract. www.ijdh.org/wp-content/uploads/2013/10/Cholera-Complaint.pdf. In their complaint, the plaintiffs allege that the MINUSTAH's sanitation and waste-disposal practices were reckless and posed a high risk of harm to the population, that the UN knew or should have known that, and that it consciously disregarded the risk.

Demonstration that the UN either knew or should have known about the risks of MINUSTAH's actions and inactions and thus was negligent or even grossly negligent should be relatively straightforward. For example, published laboratory methods for detection of cholera in asymptomatic or mildly symptomatic carriers are widely available. *See, e.g.*, D. T. Boatwright and R. A. Greenfield, *Bioterrorism and Threats to Water Safety: Cholera and Cryptosporidiosis*, in: *Biodefense: Principles and Pathogens*, M. S. Bronze and R. A. Greenfield, eds. 587–618 (2005). Similarly, there is an array of UN-promulgated policies and regulations related to human waste disposal, clean water, and infectious disease control. Examples include the World Health Organization's *Guidance on Regulations for the Transport of Infectious Substances 2013–2014* (*available at* www.who.int/ihr/publications/who_hse_ihr_2012.12/en/), the UN Environment Programme's *Environmentally Sound Management of Solid Wastes and Sewage-Related Issues* (*available at* www.unep.org/Documents.multilingual/Default.asp?DocumentID=52&ArticleID=69&l=en,) and many others. The extent to which these may be considered binding documents, and specifically binding on the UN itself, remains to be determined.

Although the UN continues to take the position that cholera has not been conclusively shown to have been introduced by the Nepali peacekeepers, and that the question of ultimate responsibility therefore remains (presumably forever) open, the continuously accruing body of evidence suggests that proving the elements of negligence, including proximate cause, may be the easiest obstacle for plaintiffs to overcome. In contrast, the UN position that it is immune to such claims and that therefore the court lacks subject-matter jurisdiction, sets the bar very high for plaintiffs. If the federal district court agrees with that position (which would be the path of least resistance) regarding immunity, then the case will be dismissed at the outset, and any questions of duty of care, breach, causation, or damages would never even be heard.

Beyond their negligence claims, the cholera plaintiffs also note that the defendants UN and MINUSTAH have "well-established legal obligations" to provide redress to the victims of harmful acts or omissions that are attributable to the defendants. And, despite the daunting legal barrier of the UN's claimed immunity, the plaintiffs also contend that the CPIUN expressly requires the UN to provide appropriate modes of settlement for third-party private law claims and that the Status of Forces Agreement (SOFA) signed between the UN and the government of Haiti expressly requires the establishment of a standing claims tribunal. While the SOFA affords MINUSTAH broad protections from actions in Haitian courts, it would at least theoretically be balanced by the establishment of an independent Standing Claims Commission, which would hear claims and compensate victims who have been injured by UN activities. However, despite this requirement in the SOFA, no such commission has been established during MINUSTAH's eight years in Haiti. Thus, the UN has failed to create any internal legal mechanism to compensate victims of its negligence, negating (in the plaintiffs' viewpoint) its claims to immunity. This theme echoes Jordan Paust's contention that "having a right without a remedy is like having no right at all," and, "[i]n view of the UN Charter, UN immunity is counterintuitive" and "[t]he United Nations is constitutionally bound to provide an effective remedy." Jordan J. Paust, *The UN Is Bound by Human Rights: Understanding the Full Reach of Human Rights, Remedies, and Nonimmunity*, 51 Harvard ILJ Online 1 (2010).

International human rights law may provide, either in the current forum or some other in the future, a basis for cholera victims' claims against the UN. Several arguments have been presented supporting the contention that the UN is legally bound to conform to its own human rights standards, or as Tom Dannenbaum put it, "[i]t surely is a consequence of the UN's legal personality at international law that it is bound by customary international law," and that the UN is "constitutionally mandated to promote the advancement of human rights." Tom Dannenbaum, *Translating the Standard of Effective Control into a System of Effective Accountability*, 51 Harvard Int'l L. J. 301 (2010). Article 25 of the UN's Universal of Human Rights 1948 states: "Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services." UN, Universal Declaration of Human Rights (1948), *available at* www.un.org/en/documents/udhr/. And, writing in *The Lancet*, UN High Commissioner for Human Rights Navi Pillay herself observed that "the right to health has become widely accepted as a fundamental human right, explicitly recognized in various international and regional human-rights treaties," and that the Universal Declaration of Human Rights "enshrines a vision that requires taking all human rights—civil, political, economic, social, or cultural—as an indivisible and organic whole, inseparable and interdependent." Navi Pillay, *Right to Health and the Universal Declaration of Human Rights*, The Lancet 372:2005–2006.

The government of Haiti, which had been reticent about the role of the UN and MINUSTAH in the cholera epidemic, has itself finally broken the silence about the UN's responsibility. On September 26, 2013, in his debut speech before the 68th session of the UN General Assembly, Prime Minister Laurent Salvador Lamothe said that the UN has "a moral responsibility" for the deadly cholera outbreak. www.miamiherald.com/2013/09/26/3653278/haiti-pm-united-nations-has-moral.html. At the very least, as commentator Kristen Boon has noted, by bringing their lawsuit against the UN, plaintiffs in this case are "exposing the limits of the UN's internal justice system, forcing the public to focus on the disastrous health consequences of the cholera epidemic in Haiti, and highlighting the accountability gap that has emerged in light of the refusal to establish a claims commission." http://opiniojuris.org/2013/10/09/haiti-cholera-battle-un-moves-us-courts/. Many would argue, however, that the time is long overdue for the UN itself to step up to the plate and accept its moral and financial responsibilities for the Haitian cholera epidemic.