

IMAGES OF HEALING AND LEARNING

Rising Waters and a Smaller Island: What Should Physicians Do for Tuvaluans?

Jordan Emont, MPH, and Gowri Anandarajah, MD

Abstract

Residents of the island nation of Tuvalu will be among the first of the 1.7 million Pacific Islanders to be displaced by the effects of climate change (including rising sea levels, changing distributions of agriculture, and unpredictable weather patterns). Already 3,500 Tuvaluans live in New Zealand (approximately 25 percent of the world's Tuvaluan population), some of whom moved due to climate change. Immigrating to New Zealand presents several challenges for Tuvaluans, including limited job opportunities, health care disparities, and dietary changes. Nevertheless, Tuvaluans in New Zealand continue their culture as they redefine their identity in a new country. Given the growing effects of climate change, physicians around the world will soon care for a new generation of immigrants and will play an important role in advocating for health equity and self-determination among climate-sensitive populations. This article uses personal stories and photographs of Tuvaluans and photographs of Tuvalu and New Zealand to present Tuvaluans' struggles and ethical issues pertaining to health that arise in relocating Tuvaluans.

Introduction



Figure 1. *Vaioleta*. Photo: Jordan Emont.

In 1997, when Vaioleta (not her real name) was five, she and her parents left their house on the small atoll of Funafuti, the capital of Tuvalu, and moved to Auckland, New Zealand. The contrast between their lives in these two places is striking. Beyond moving from an island of roughly 5,000 to a city of 1.1 million [1, 2], Vaioleta and her family now found themselves crammed into a small barn, where they remained for two years with 20 other Tuvaluan families, all of whom had come to New Zealand on temporary visitors' visas that they intended to overstay. For some, it might be 15 years before they were granted permanent residence, and thus 15 years without access to affordable health care or social services. Others were deported back to Tuvalu, their hopes for a better future in New Zealand forever destroyed. Vaioleta's story mirrors that of many immigrants worldwide. However, what distinguishes the now 3,500 Tuvaluans living in New Zealand from other migrants is the growing awareness that soon their country of origin might no longer exist, one of the first lost due to the effects of climate change [3]. Many Tuvaluans in Auckland know that they may never see their beloved islands again.

If the effects of climate change continue as predicted, physicians will soon be caring for a new generation of immigrants. Ethical principles such as the [physician's obligation to advocate](#) for patients' best interests and public health, respect for patient autonomy, and beneficence are intertwined in this complex issue and can guide how individual

physicians approach caring for populations affected by climate change, such as Tuvaluans. The stories and photographs in this article are drawn from the experience of the first author (JE), who lived in Tuvalu for two months in 2014 and in New Zealand for two months in 2017.

The Story of Tuvalu

Tuvalu is an island nation in the South Pacific of roughly 11,000 people divided into nine atolls [4], united by their ethnicity and language but each with their own distinct cultures and traditions. With the highest point around 16 feet above sea level [4], Tuvalu is eroding away under a rising ocean [5, 6].



Figure 2. *Funafuti from the Air.* Photo: Jordan Emont.

Already the [health effects of climate change](#) are visible in Tuvalu. The destruction of fresh groundwater in Funafuti has made it nearly impossible to grow the food staple, taro, in some places [7], leading to increased reliance on imported food. And in 2011, a severe drought—one of many increasingly severe weather events—precipitated an outbreak of diarrhea [8]. Every year, the islands are inundated by incrementally higher “king tides,” causing destruction and contamination of water resources [9]. For now, the effects are not severe enough to cause an exodus of the entire population from the islands, but the countdown has begun.

Where will Tuvaluans go? There is no consensus. New Zealand seems a likely destination given the already large Tuvaluan community living there. However, given their proximity,

Fiji and Australia remain possibilities; Fiji also currently hosts a large population of Tuvaluans who are living and studying there. Neither Tuvalu nor any foreign states have devised a comprehensive resettlement plan for Tuvaluans when that fateful day does arrive. The reality is that in the future, the Tuvaluan community is likely to be fragmented among many different countries.

Tuvaluan Immigrant Health Disparities in New Zealand

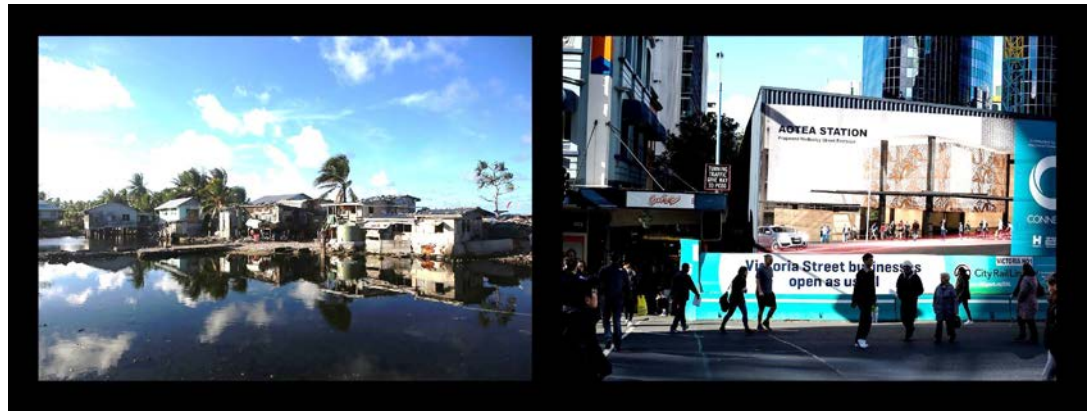


Figure 3. *The Contrast between Tuvalu and Auckland.* Photo: Jordan Emont.

Immigration to New Zealand presents several health problems that are exacerbated by social disparities. Like Vaioleta's family, many Tuvaluans when they arrive are immediately confronted with overcrowding, leading to the spread of tuberculosis and rheumatic fever, a notorious problem among Pacific Islanders in New Zealand [10]. In interviews the first author conducted with community members in June and July 2017, Tuvaluan immigrants reported that due to the high cost of food, their diet changed from mostly fish to one of significantly more chicken and rice, few fruits and vegetables (though slightly more than in Tuvalu due to increased availability), and many more processed and fast foods. In addition, they stated that portion sizes in New Zealand are larger than in Tuvalu, possibly due to the more ready availability and better taste of food. This dietary change is not unique to Tuvaluan immigrants and, as a result, Pacific Islander immigrants have a significantly higher prevalence of obesity and diabetes compared to New Zealanders overall [11, 12]. Walking was common on the islands; in New Zealand, Tuvaluans reported that they must drive everywhere and that with the exception of periodic sports events organized by the community, their level of physical activity is low. These concerns are magnified by the fact that many immigrants find themselves unqualified for work outside of farms, leading to precarious month-to-month incomes as laborers [1].

Accessibility of health care also differs in the two countries. In Tuvalu, health care is provided free to patients either at small clinics on the outer islands or at the one hospital on Funafuti, the main island. However, throughout Tuvalu, medical facilities function as

urgent care clinics, and there is no significant primary care presence. Similarly, in New Zealand, Tuvaluans with permanent residence interviewed by the first author reported generally only seeking health care when a problem arises. Unlike in Tuvalu, however, in New Zealand there is a need for an appointment and a copay to see primary care physicians for both residents and nonresidents. Therefore, many Tuvaluan immigrants reported either delaying care until illness sequelae become worse or presenting to emergency rooms for free care. Awareness among immigrants of the value of primary care, chronic disease management, and prevention are largely absent—leaving aside the several hundred nonresident “visa overstayers” who pay up to 8 times more for health care than registered patients and are even more removed from the health care system [13]. The end result of social disparities in diet, health care access, health literacy, and employment opportunities is significant health inequalities. Among other differences, Pacific Islanders have a roughly five-year shorter life expectancy compared to New Zealanders overall [11].

Physician advocacy can play a significant role in supporting solutions to toxic [social determinants of health](#) and in improving health literacy in this vulnerable population. A good example is a recent campaign by New Zealand Pacific clinics—primary care clinics that specifically serve Pacific Islanders—to raise awareness about the danger of rheumatic fever [14]. Through the use of consistent, translated, and culturally appropriate messaging, a number of the Tuvaluans and clinicians interviewed by the first author reported that this campaign had changed how many Pacific Islanders viewed not only rheumatic fever but also the role of primary care more generally in promoting wellness. If accessible, the health care Tuvaluans receive in New Zealand is superior to that in Tuvalu, making not only primary care but also early detection and treatment for serious conditions like cancer and chronic kidney disease finally possible.



Figure 4. *The Faces of Tuvaluans in Auckland.* Photo: Jordan Emont.

Moving to New Zealand provides benefits for Tuvaluans besides improved health education and superior health care quality. If they are able to leave their homeland in a planned manner, they can optimize preservation of their economic, social, and cultural assets. Given the limited employment opportunities in Tuvalu, many Tuvaluans who immigrate are able to find work for the first time in their lives, even if those jobs are primarily on farms. In addition, Tuvaluan culture in Auckland is robust, with community gatherings occurring near daily. These events provide opportunities to speak the native language, wear island attire, share a communal song and dance called a *fatele*, and feast on many tables-worth of traditional dishes.

The Ethics of Climate Change-Induced Relocation



Figure 5. *Tuvaluan High Tide.* Photo: Jordan Emont.

The problem with Tuvalu, as with any other community faced with climate change relocation, is that it is a disaster in slow motion. The insidious nature of the effects of climate change makes it possible for life to persist on the islands for a long time before it suddenly becomes inhospitable, requiring emergent evacuation. The ethics of relocation is complex because we must account for affected persons' varying means and knowledge about effects of climate change and how these factors inform the motivation of some to leave their homeland. Although many who choose to remain in Tuvalu do so out of pride in their land and culture, some do so because they lack the money to pay for immigration or lack awareness of the fact that the sea will overtake the island. While

individuals have the right to remain in their homeland if they wish, optimally this decision should be well informed regarding the risks and benefits of staying.

One hurdle to overcome in Tuvaluans' climate change relocation is getting the Tuvaluan government to understand its role in facilitating immigration. Many Tuvaluan immigrants to New Zealand who came using a visa program known as the Pacific Access Category Scheme reported in interviews with the first author that they received no information or aid from the government about immigration options. Some even described loved ones whose applications were denied due to misinformation or errors on the part of the government. One interviewed immigrant who was formerly a Tuvalu government employee described the Tuvalu government as quelling concerns over and education about climate change out of a fear that a mass exodus would trigger a decrease in international aid, a major source of government revenue [15].

What, then, is the role of physicians and the international community in mitigating knowledge and opportunity gaps? Since the majority of Tuvaluans currently remain in Tuvalu, the focus of physicians both in Tuvalu and abroad must be on the health risks facing the island population as climate change worsens. In particular, Tuvaluan medical practitioners can play a crucial role in educating those in Tuvalu who are less aware of the effects of climate change about the risks and benefits of staying in the country as the seas rise. These education and advocacy efforts might place physicians in the role of mediator between the government and those who might wish to leave Tuvalu. By assuming this role, physicians can help bridge these opposing sides and help foster the self-determination of the Tuvaluan people, allowing them to decide for themselves their future course as a nation. On the contrary, a paternalistic approach that either "protects" Tuvaluans from knowledge of impending climate disaster or imposes "benevolent" relocation, forced relocation, or refugee status poses substantial ethical challenges.

Effective international interventions will depend on an intimate knowledge of Tuvaluan culture, language, and norms. Tuvaluans are proud of their heritage and culture, and any perceived unwanted intrusion into their close community by foreigners would only be met with apathy.

Conclusion

Ethical issues surrounding climate change relocation are complex and varied. Physicians can play many roles, including mediation between Tuvaluans and policymakers and addressing health disparities resulting from relocation. Fulfilling such roles will require physicians to become educated about the health risks of climate change and associated relocation. Tuvaluans are only one of many communities who will be displaced by the effects of climate change. Understanding the culture and history of such communities and the socioeconomic challenges of immigration will be crucial in bettering the lives of those who will bear the greatest burden of climate change. As physicians grapple with

the social and health concerns of these new populations, the case of Tuvaluan immigration provides lessons regarding adapting care delivery to different levels of health literacy and health-seeking behaviors, modifying messaging to be culturally and linguistically appropriate, and expressing structural competency in caring for populations facing climate change-induced immigration and social and health disparities in a new country.



Figure 6. *Vaioleta Visits Her First New Zealand Home.* Photo: Jordan Emont.

When future Tuvaluan migrants arrive in New Zealand, some will experience journeys similar to that of Vaioleta. As she visited the now abandoned and dilapidated farm where she spent the first two years of her life in Auckland, she reflected that, overall, the move to New Zealand had been positive for her. She is now 24 years old, has studied social work at the university, and works at a local health clinic that serves Pacific Islanders in Auckland. She is married and is involved in her Tuvaluan church youth group in Auckland. She is Tuvaluan to the core, even identifying herself first as Tuvaluan, despite growing up most of her life in New Zealand and speaking with a New Zealand accent. When asked about what it means to be a Tuvaluan when the islands disappear, she said “Tuvalu is in my heart, and I’ll always have that.” Tuvaluan culture in New Zealand appears to be not only existing but thriving, as Tuvaluans are coming to terms with how to exist in a future where being Tuvaluan is different than being from Tuvalu. Although nostalgia for their former island life is palpable, very few regret moving, but all do worry about those still at home who have not yet left. Physicians are tasked with helping to ensure that the health of Tuvaluans and the community of Tuvalu outlasts the islands themselves.

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Jordan Emont, MPH, is a second-year medical student at the Warren Alpert Medical School of Brown University in Providence, Rhode Island. He obtained an MPH from Yale University in 2015.

Gowri Anandarajah, MD, is a professor of family medicine and medical science and a clinician educator at the Warren Alpert Medical School of Brown University in Providence, Rhode Island. She has spent much of her career caring for vulnerable and underserved patients both in the US and in global settings and has extensive experience teaching about clinical, ethical, and advocacy dilemmas involved in caring for patients.

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