Nurses and Disasters
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Nurses and Disasters

Global, Historical Case Studies

Arlene W. Keeling, PhD, RN, FAAN
Barbra Mann Wall, PhD, RN, FAAN
Editors
This book is dedicated to all those who suffered or died in the disasters outlined here, and to the nurses, physicians, and other frontline workers who responded.
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Preface

In October 2014, two registered nurses, Nina Pham and Amber Vinson, both of whom worked at a hospital in Dallas, Texas, contracted Ebola after caring for a patient who eventually died from the same diagnosis. Almost immediately, cable news networks reported the story all over the world. These nurses were the first in the United States to contract the disease. From a global, historical perspective, however, Pham and Vinson were not the first nurses to become infected with Ebola; they were simply—as Americans, and along with two American physicians—the first to be recognized for having risked their lives working on the front lines of the battle against the killer virus. Countless others had already contracted the disease in Kenema, Sierra Leone. As of August 2014, 15 African nurses had died. Yet they remain anonymous, most likely because of their race. Remarking on their deaths and how much these nurses meant to her, Josephine Finda Sellu, RN, the deputy nurse matron at a hospital in Kenema, noted: “It has been a nightmare for me.” In spite of the danger, many of Sellu’s other nurses “soldiered on,” and for their efforts their neighbors and friends shunned them, out of fear that they too would contract the illness. Later in October, as pandemic fear spread faster than the virus, the same reaction would occur in the United States.

The nurses in Sierra Leone were part of a larger frontline response, one that included doctors, janitors, drivers, lab technicians, pharmacists, and “body handlers,” all risking their own lives to volunteer in the effort
to help. Others, too, had died; in fact, the death toll in Sierra Leone was averaging several thousands a week, most of whom remained nameless in the news reports.

In the United States, Tom Friede, MD, the director of the Centers for Disease Control and Prevention (CDC), initially blamed Pham for “breach of CDC protocol,” although he later apologized for making that statement. As the largest union of registered nurses in the country, the National Nurses United demanded increased nurse training in the proper use of equipment for hazardous materials. They demonstrated in the streets, and testified before Congress, calling for the United States to stop the epidemic and stop blaming the nurses on the front lines. Within days, the American Nurses Association supported the nurses, asking for new CDC guidelines, training, and proper protective equipment. The CDC responded with updated guidelines and assurances about the provision of equipment, while public health officials and hospital administrators across the country scrambled to prepare for a possible pandemic.

Fear spread faster than the virus and resulted in federal, state, and local responses that were not coordinated. In late October, a nurse returning from Africa was quarantined in a tent outside a New Jersey hospital for 2 days, despite the fact that she had tested negative for the Ebola virus. After her release, Kaci Hickox, RN, returned to Maine where she was again quarantined, this time in her house for the remainder of the 21-day quarantine mandated by the state. Later, a judge removed the state-mandated quarantine. This episode of quarantine highlighted historic tensions between individual liberty and the protection of the public’s health. It also raised questions about ethical dilemmas that nurses face in caring for patients with infectious diseases and the responsibility of local hospitals, states, and federal public health agencies to protect nurses, physicians, and other frontline caregivers.

This book addresses some of those questions from a global, historical perspective, incorporating lessons from nursing history for today. Clearly, nurses work on the front lines of disasters—or right behind the lines in hospital emergency departments, clinics, and wards. Disasters can occur naturally from earthquakes, floods, or hurricanes. They can
result from fires, epidemics, explosions, nuclear catastrophes, and human actions during conflicts, such as war. This book describes and analyzes nurses’ roles in select cases from disasters that have occurred in areas around the world from the late 19th century to the present. These include an outbreak of typhoid in Tasmania in 1885 to 1887; a devastating earthquake in Italy in 1908; an Ohio (USA) flood in 1913; the Alaskan influenza epidemic of 1918; the World War II bombings of London and Manchester, England, in 1941; the bombing of Pearl Harbor, Hawaii, in 1941; the nuclear bombing of Hiroshima, Japan, in 1945; a destructive wild fire in Bar Harbor, Maine (USA), in 1947; the SARS crisis in Toronto, Canada, in 2003; and the effects of Hurricane Sandy on hospitals in New York City (USA) in 2012. Nurses’ actions are situated within local responses, national networks, and international aid.

The book addresses the following questions: How did local, regional, national, and international communities mobilize for emergency care? What was the role of nurses in these responses? How can an examination of nursing during disasters enhance an understanding of how to manage risk? What can be learned about cooperation, conflict, and competition among responders? What was the impact of social and professional expectations on the ways that nurses responded to disasters? What ethical dilemmas did nurses face when they were asked to work on the front lines of disasters? How did preparedness for the disaster or lack thereof affect the nature of the response?

One cannot escape the daily news accounts of disasters occurring throughout the world. Nurses are—and have been—a critical part of disaster response, and this book gives them a voice. Themes that recur throughout the narrative are: the notion of a nurse’s “duty to care” versus the need to protect herself or himself; the need for innovation and coordination of the response effort; and cooperation among the responders versus inherent political, racial, and interprofessional conflicts. Thus, the book examines political sensitivities, international conflicts, cultural differences, and societies’ varying professional and gendered expectations of nurses. In addition, the book highlights nurses’ voices during major World War II bombings, addressing realities that occurred during the war that have long been silenced for reasons of political and social
correctness. These case studies document nurses’ roles in response to the London Blitz, the attack on Pearl Harbor, and the bombing of Hiroshima, revealing nurses’ response to these crises: their dedication to patients, their ability to triage and improvise, and their adaptation to nursing professional norms expected in various cultures. (Doubtless, nurses in other countries involved in the war responded in a similar way, although all those stories are not presented.)

History shows that nurses need to feel that they can protect themselves and their families. With this in mind, the book analyzes risks nurses take and the consequences that result if they do not have the resources, equipment, skills, and knowledge to respond effectively. Nonetheless, the cases demonstrate that time after time, nurses do accept risks to their own health in order to fulfill their professional commitments.

STRUCTURE OF THE BOOK

Prelude

The book begins with a Prelude by Barbra Mann Wall, her 2013 Hannah Lecture in Victoria, British Columbia, in 2013, reprinted from the Nursing History Review. This sets the stage for the book by starting the discussion on what history can tell us about nurses’ roles in disasters. She writes from the stance of a nurse and historian who is concerned with the possibilities as well as the conflicts that occur in nurses’ responses to disasters. She frames her discussion on the concept of “emergence” and asks us to consider how knowledge about nursing actions during disasters can enhance an understanding of the notion of “emergent phenomena.” This concept, described by sociologists Thomas Drabek and David McEntire, includes the collaboration of interorganizational networks that dedicate themselves to resolving the demands placed on their community in times of disaster. Wall asserts that nurses are part of this multiorganizational network and should be a part of any public response to disaster. Examining nurses’ responses as part of a larger whole can help the reader reimagine the possibilities for their action in the public domain.
Chapter 1: Typhoid Fever Epidemic, 1885 to 1887, Tasmania, Australia

Chapter 1 discusses the nursing and hospital politics that occurred in the Australian island colony of Tasmania in the years 1885 to 1887. The sheer persistence of the epidemic taxed Tasmania’s nursing workforce, because among those who contracted typhoid and died were six hospital nurses. Other nurses also became ill, resulting in calls for nurses from mainland Australia to assist the ailing colony. The chapter considers the community’s confidence, or lack thereof, in the nurses and nursing practice during this public health emergency, evidenced by the arguments over the awarding of 24 hospital nurses with 18-carat-gold “Typhoid Medals” for meritorious service to nursing.

Chapter 2: The 1908 Italian Earthquake

In 1908, a massive earthquake occurred in Messina and Reggio Calabria in Italy, resulting in more than 70,000 deaths. This chapter discusses the collaboration among the military machinery, the Red Cross, and international assistance. The vastness of the destruction shook world opinion and, for the first time, a natural disaster became an event of political significance in the field of international relations. In the nursing response, British, American, and Italian nurses brought their own understandings of nursing and its place in the world order. These beliefs sometimes resulted in praise and, at other times, criticism of each other.

Chapter 3: The 1913 Flood in Ohio (USA)

The American Red Cross response to the 1913 Ohio flood in the United States was the largest of its kind since the 1906 San Francisco, California, earthquake. Between 1906 and 1913, the Red Cross had designed an innovative strategy to expand nurses’ work in disaster response, which they activated after cataclysmic flooding in southwestern Ohio. Within days of the massive flooding, Red Cross nurses arrived in Ohio from St. Louis, Chicago, New York City, and Washington, DC, relieving local nurses initially deployed from Cincinnati’s Red Cross affiliate. This
chapter describes the Red Cross nursing innovations in response to the flood, the professional and gender-based barriers the nurses faced, and the approaches the nurses used to achieve their goals. Emphasis is on the pre-disaster planning by the Red Cross nursing leadership and the nurses’ strategic on-site decision making during the crisis. The nurses’ experiences in the flooded districts laid the groundwork for a Red Cross nursing response in wartime Europe later in the decade.

Chapter 4: The Alaskan Influenza Epidemic, 1918 to 1919

The lack of access to medical and nursing care in the isolated, remote regions of the territory, a dependence on subsistence living, the freezing temperatures, the Alaskan culture of community, and the severity and virulence of the disease were all part of an “interdependent cascade” of factors that resulted in devastation to indigenous Alaskans in the 1918 influenza epidemic. In particular, more than 22 Inupiat communities of the Seward Peninsula were destroyed; overall, between 4,000 and 5,000 indigenous Alaskans died and several hundred children were left orphaned. The response, which included those of health officials, local government, shipping lines, physicians, nurses, and Red Cross volunteers, relied on well-established patterns of communication already in place in the lower 48 states. Interprofessional collaboration and public–private cooperation were also essential. Clearly, the five to six hospitals throughout the territory, with only eight physicians and 11 nurses, could not handle the epidemic alone, and the local governments could not afford the cost of the response without help from the federal government.

Chapter 5: The Bombing Blitz of London and Manchester, England, 1940 to 1944

Based on data from oral histories, this chapter describes the collaborative response of nurses, physicians, volunteers, Red Cross workers, and local governments to the London and Manchester, England, bombings during World War II. During the Blitz, hospitals, churches,
train stations, and homes in both cities were devastated. Many people sought refuge underground during air raids. Meanwhile, nurses remained on duty in the hospital wards, often at great risk to themselves. This chapter focuses on nurses’ “duty to care,” and the pressures student nurses in particular expressed as they carried out this mandate.

Chapter 6: The Bombing of Pearl Harbor, Hawaii, December 7, 1941

This chapter describes and analyzes the military nurses’ roles in the hospitals in Pearl Harbor, Hawaii, in the hours and days after the Japanese attack on the American fleet on December 7, 1941. Themes of emergent behavior, cooperation, and collaboration are identified. Amid the chaos, nurses assumed leadership roles, triaging patients to other hospitals, administering analgesics, immunizing casualties for tetanus, and providing emergency care. Improvisation and innovation became hallmarks of that care, as nurses struggled to meet the influx of burned and injured men while risking their own lives to do so.

Chapter 7: The Nuclear Catastrophe in Hiroshima, Japan, August 1945

With a different perspective on World War II, this chapter relies on oral histories from several Japanese Red Cross nurses who worked in the hospitals in Hiroshima on August 6, 1945—the day the United States dropped the atomic bomb on that city. The chapter examines questions of what happened to those nurses who were already on duty and what they faced in the days immediately following the bombing. It also examines the emergent response of many groups in the context of the overwhelming devastation that included the bombing of the nurses’ dorm. This chapter also highlights the risks that the nurses faced in their compelling obligation to give priority to the care of soldier patients. Set amid the chaos of war, the chapter identifies and describes nurses’ dedication to patients, their willingness to risk their own lives, and their resilience.
Chapter 8: The Bar Harbor Fire of 1947, Bar Harbor, Maine (USA)

In October 1947, a series of devastating wildfires, fueled by high winds, a buildup of debris in nearby forests, and extreme drought, affected much of the state of Maine on the northeast coast of the United States. Like most towns in the United States, Bar Harbor did not have a plan in place for a massive natural disaster. Located on the edge of Acadia National Park, Bar Harbor was a renowned seaside summer retreat for the wealthy, and home to a local fishing economy. This chapter highlights issues of unpreparedness, the privilege of class, and a state’s ability to respond. It also examines the devastating decisions nurses and others had to make as they faced the oncoming inferno.

Chapter 9: The SARS Pandemic in Toronto, Canada, 2003

In 2002, a new disease, severe acute respiratory syndrome (SARS) coronavirus, emerged in south China and rapidly spread across the world, causing a pandemic that resulted in 775 deaths. In Toronto, Canada, between February and September 2003, there were 438 suspected cases and 43 deaths. The pandemic was largely centered in acute care hospitals where patients and health care workers were at the greatest risk of infection and death. Two nurses and one doctor were among those dead. What became clear in the Toronto experience were the tensions between altruistic and service-oriented responses to the risks faced by health workers and the rights of nurses to a safe working environment. This chapter explores those issues. It also identifies a new set of challenges that arose for the public health departments, the government, and the hospitals, including the need to manage mandatory quarantine, the public’s stigmatization of health workers, and demands for full access to information.

Chapter 10: Hurricane Sandy, October 2012, New York City (USA)

This chapter focuses on the evacuation of two New York City hospitals during Hurricane Sandy. When the hurricane hit the northeast coast of the United States in 2012, nurses played key roles in responding.
Each New York City hospital had a disaster plan in place, but none had accounted for failed backup generators, a lack of electricity, and flooded elevators. Nurses, physicians, medical students, orderlies, and other staff workers moved hundreds of patients down several flights of stairs during the emergency evacuation, and did not lose a single patient. In this emergent situation, collaboration among many responders was critical to success. Lessons learned from other hospitals, such as those in New Jersey, are also discussed.

Conclusion

The book concludes by returning to the Ebola outbreak in 2014 to examine lessons learned from this global historical perspective on nurses and disaster responses. This concluding chapter examines the roles of hospitals, local health departments, and the state with regard to protecting not only the public’s health but also the health of nurses and other caregivers on the front lines. Questions guiding the analysis include: When is it appropriate to quarantine health workers for the protection of the public? What are the issues that emerge related to the nurses’ duty to care in a setting that conflicts with their right to protect themselves and their families? What is the role of nursing professional organizations in advocating for nurses’ rights during a pandemic? The central conclusion is that the public needs to recognize the importance of nursing and to be able to trust that compassionate and professionally trained nurses will be there to take care of them should the need ever arise. At the same time, nurses have the right to expect the training, skills, knowledge, and resources they need to protect themselves and their families.

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NOTES

2. Ibid.
3. Ibid.
6. Given at the 2013 Congress of the Humanities and Social Sciences, June 1, 2013, Victoria, British Columbia, Canada.

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Prelude

Modern disaster planning has taken on increased importance and urgency in light of the recent dramatic increase in natural and man-made disasters that have resulted in enormous human and economic losses. Such planning is aided by examining the historical role of nurses in disaster responses. Nurses occupy vital positions in disaster care because of their unique roles with patients and their experience in areas such as evacuation, triage, physical and psychological care, screening measures, case findings, vaccinations, monitoring, and disease surveillance and prevention.

What does history tell us about nurses’ roles in disasters, particularly their provision of disaster relief during the initial response phase? Why is this important for disaster responses? And how can this knowledge enhance an understanding of the notion of “emergent phenomena”? For this discussion, disaster is defined as a social disruption resulting from natural causes, such as earthquakes and hurricanes; technological causes, such as explosions or nuclear accidents; and conflict situations, such as wartime. Research on the term “emergent behavior” has been a significant feature of disaster studies in sociology, but it has not been examined from the standpoint of the history of nursing. Sociologists Thomas Drabek and David McEntire argue that emergent phenomena include “the appearance of inter-organizational networks after disaster which attempt to fulfill important societal functions made evident by an extreme event.” These networks are composed of many organizations
that work together to “resolve the demands placed on their community in times of disaster.” Drabek and McEntire argue that people become more “cohesive and unified during situations of collective stress, and they work together.” Emergent groups often “have no previous knowledge of each other,” and they may perform “non-regular tasks.” Local communities are particularly important at this time; they are the “first to help themselves.” Often, these emergent groups are the most effective and quickest to respond after a disaster.

A history of nursing can contribute to theoretical discussions of emergent behavior. By taking into account nurses’ rich heritage in disaster responses, we can learn about which groups should be included in any organizational coordination during disasters. This chapter features case studies of the work of nurses and some physicians situated within a local response and one involving international aid. The aim is to enhance understanding of the social and political forces that informed nurses’ actions, and the tensions and inconsistencies that occurred at particular times in particular places.

Doing disaster research has its challenges because records can be lost or destroyed. Some sources are available, however, including newspapers, diaries, letters to family members and other personal correspondence, official histories from organizations, city records, photographs, and oral sources. Problems include memory loss if a letter was written or an oral history obtained some years later. Yet, Joseph Scanlon, who wrote about the 1917 Halifax, Nova Scotia, ship explosion, found that “disasters are so dramatic that many vividly remember what happened even three-quarters of a century earlier.”

Another problem is “whose history is recorded? From whose perspective? A gaping hole includes the voices of the silenced, including minorities, the poor, and others excluded from power. This could be because they may have lacked the means to document personal experiences, or archivists and librarians simply did not seek their stories.” In my own research, I have had to doggedly piece together different sources and read between the lines of others to get at the silenced voice.

In 2010, Arlene W. Keeling and I edited a book on the history of nursing in disasters. We concluded, based on 13 case studies, that
nurses made crucial independent decisions in crisis situations where time was critical to a person’s survival. Their senses sharpened as the events at hand took priority. They also often responded with makeshift activities as they helped restore order after extreme social disruption. We also affirmed that disasters unraveled stable geographical boundaries as nurses responded in collaboration with others. For example, nurses from Boston, Massachusetts, assisted in Halifax, Nova Scotia, after the 1917 ship explosion. Nurses from Boston were rewarded a year later when Canadian nurses went to Boston to help during the flu pandemic. From Mississippi to Texas, Boston to Halifax, and New York to Turkey, nurses and others offered to help after disasters in any way they could.10

Historically, people have had a sense of obligation to care for strangers during periods of war and devastation. The founding of the International Red Cross in 1863 in Geneva was a milestone in the growth of humanitarian relief based on a position of neutrality. Eventually, several national societies formed.11

Historians and sociologists have been saying for decades that health care workers and survivors are resilient in the face of disasters, and our conclusions validate this finding. As an example, after the 1906 earthquake and fire in San Francisco, nurse Lucy Fisher and her companion immediately donned their uniforms and went to a make-shift hospital in a building called the Pavilion. It is interesting that they thought to put on their uniforms; indeed, this gave them legitimacy. The fact that they were nurses allowed them entrance when many others were turned away. In Fisher’s firsthand account for the American Journal of Nursing, she noted that they faced a chaotic scene of mattresses strewn on the floor, nearly all occupied by patients. An improvised surgery was well equipped and already in operation, however, with operating room tables, dressings, instruments, and hot and cold sterilized water from the destroyed emergency hospital. Patients were constantly being admitted, and Fisher and her friend were told to “pitch in,” which they quickly did. Because the surgery area was well staffed, Fisher was particularly concerned about critical cases that might be overlooked in the confusion, and she went around the room with extra blankets, hot water bags, and coffee for people
in immediate danger. In the process, she put her assessment skills to work by observing for those “with feeble pulses and blue lips.”\textsuperscript{12} She and her friend pinned pillowcases to their waists to carry dressings, helped with dressing changes, and gave hypodermic injections for pain. Because of the confusion and the danger of duplication of drugs, the nurses pinned tags onto patients with the name and quantity of the drug and the time it was administered.\textsuperscript{13}

Other nurses rode to disaster sites in that new contraption—the automobile. With his father’s pistol in hand, Rene Bine, a young San Francisco physician, also responded by commandeering an automobile. He and others broke into hardware and drug stores to get medical supplies and ransacked department stores for pillows and mattresses for the injured. They did not consider this looting—rather, they saw it as a necessity to get the needed supplies. He worked at several makeshift facilities. He later wrote to relatives, “I never felt better in my life. We sleep on the ground & it is better than the country and loads of fun. We have a good supply of rations and are in OK shape all around.”\textsuperscript{14} Nellie May Brown nursed at a camp in Oakland and wrote to her family telling them that she was “working in the thick of the suffering—at last experiencing the horrors of the field hospital.” She was in the first squad sent out to one of the nearby forts. She wrote that she was having the “experience of a lifetime.”\textsuperscript{15}

Several groups also emerged in 1947 in Texas City, Texas, after a ship loaded with fertilizer exploded in the harbor, killing more than 500 people. The entire local fire department responded, and all its members were killed. More than 3,000 injuries also occurred.\textsuperscript{16} Individuals and organizations from the local community immediately responded. One Red Cross administrator noted, “Never in all my days have I seen such response from nurses, doctors, first aid crews, military personnel, law officers, and citizens.”\textsuperscript{17} One drug store owner opened a first-aid station and, along with some volunteers, began bandaging the injured. Conscious of the racial norms of the day, it was important for him to point out, “We bandaged everyone, whites, Negroes, Mexicans.”\textsuperscript{18} He knew that doctors used whiskey for shock, and he started passing it out not only to survivors but also to morticians “to keep them going in their horrible job.”\textsuperscript{19} Search-and-rescue teams were formed. A nurse from a
local clinic remembered that men from one of the industrial plants came to help, and they worked “like Trojans.”

The city had not prepared for a disaster of this magnitude, and no disaster plan was in place. Without a local hospital, physicians and nurses set up a makeshift clearing station and triaged casualties. Texas City clinics were full, and volunteer physicians and nurses had to work with no water or electricity. Women opened their homes to care for the injured, and even workers at the local radio station got into the act. To maintain a record system for tracking survivors, someone started a file system. Indeed, these residents were the “first to help themselves.”

Nurses, surgeons, medical residents, and medical and nursing students from Galveston’s John Sealy Hospital across the bay from Texas City were among the responders. After giving emergency first aid to thousands, they sent casualties to 21 area hospitals in cities such as Houston and Galveston. Typical of emergent phenomena, as citizens and organizations took on new tasks, they stepped in and shared their resources. The participants included nursing and medical students who worked both at the disaster site and in hospitals. One nursing student was recruited by her supervisor. At first she resisted going, stating, “I don’t have permission from the nursing office.” The supervisor cried, “It doesn’t matter. I give you permission!” After arriving at the scene, the student administered first aid to severely burned patients, including giving morphine for pain. In fact, in this emergent situation, she had an “open order to administer hypodermics of pain relievers as I saw the need…. In a situation like this,” she wrote,

You are oblivious to anything except doing the job at hand. Somehow, everything you have ever learned in this area comes to the surface and you do the best you can…. I later realized there was no way that you could take a holistic view of a patient in a situation like this; it’s only the immediate needs that are met.

In her memoir, she commented on “what a confident twenty-year-old nurse I was.”
A sophomore medical student also responded and was dispatched to John Sealy Hospital’s emergency department. In this situation, medical and nursing care blurred. He washed the oil off burned patients and those with severe contusions, set up oxygen tanks, took histories, monitored vital signs, and cleaned wounds. Hospital leaders also drafted medical students to help nurses who worked long shifts on the floors. Thus, for the next 2 days, he cared for patients with suspected gas gangrene until special nurses could take over the care.\(^26\)

One nursing student recalled that she was amazed at how, when she was at the scene of the disaster, “everything began to fall into place and regardless of rank or race we were a team.”\(^27\) The medical student wrote,

> For the first time in my life, I didn’t care whether a man was white or black. I worked with both equally at ease. It didn’t make a bit of difference as both were sick, and all needed to be cared for.\(^28\)

These examples illustrate that nursing and medical students’ routine assignments changed, and they found alternative ways to respond as they shared tasks.

The students’ stories should not be taken to mean that there were no challenges. Historical research can also add to debates over the impact of race on emergent behavior. Indeed, this study shows that responses were composed of “messy” race struggles. White respondents remembered people pulling together during the emergency period; yet they probably were working from a base of unacknowledged “white privilege”: One of the benefits of being White was having the power to ignore race in the situation.\(^29\) A different story was told when Black responders came forward. Black physicians and nurses also rendered aid at the disaster scene, as did morticians and embalmers. Their voices were found through a search of Black newspapers and photographs. Two ministers from local Black churches carried the injured and dying in their cars to hospitals in Galveston.\(^30\) But they reported that “when they began their rescue work, the Negro injured were being walked over while the Whites were being rescued.”\(^31\) Although these contrasting
accounts were likely true—as they applied to specific situations—the African American newspaper took a different perspective and reported on the continued neglect of Black casualties.\(^3\)

This brings me to a discussion of how photographs can enhance the historical record when few written sources exist on silenced voices. I have written elsewhere about a particular photograph of the emergency room at St. Joseph’s Hospital in Houston, where some of the survivors of the Texas City disaster were taken.\(^3\) It reveals a Catholic sister helping an injured woman while several people, both African Americans and Whites, look on. This nun in her white religious garb, being in the center of the picture, lent a settling presence to a chaotic situation. But the photograph can also suggest something about racial relations. One interpretation is that African Americans are working side by side with Whites. This is significant because in 1947, hospitals in Texas were segregated. In showing Blacks and Whites working together, the picture can validate sociologists’ claims that disasters often blurred racial boundaries.

Yet, sociologists’ disciplinary focus on qualitative and quantitative studies does not include scholarly interpretations rooted in historical analysis.\(^3\) My reading of this photograph is that, although it gives the impression that Whites and Blacks worked together in accord without favoritism, when contextualized with Texas’s history of racial discrimination, a different interpretation can be offered. The African Americans are on one side and the Whites on the other. Perhaps, the photograph is staged, as they often are, because no one appears to be actually working. Furthermore, the nun is assisting a White ambulatory woman while a Black woman waits in a wheelchair.\(^3\) This photograph can support what the African American newspapers had reported—that Blacks were ignored, whereas Whites were tended to first.

After the San Francisco earthquake and the Texas City ship explosion, it is also interesting to consider how nurses and physicians described their experiences. They saw themselves as performing meaningful work that was deeply rewarding to them. They turned the disaster into an opportunity (it was exciting for them, in a positive way), and they were proud of their work. What is often overlooked from most contemporary caring models is the personal satisfaction
nurses and other health care workers find in actively using their knowledge and skills and being present for patients and their families in times of need.\textsuperscript{36}

Yet, what the texts did not reveal is also interesting. They did not mention fear or lack of control. We also do not get the perspective of nurses who did not come to help. During the severe acute respiratory syndrome (SARS) epidemic in Toronto in 2003, for example, some nurses chose not to lend assistance because they were afraid of contagion and of infecting family and friends. Indeed, one study revealed that the attack rates among nurses who worked in emergency departments and intensive care units ranged from 10.3\% to 60\%.\textsuperscript{37} This probably happened in earlier disasters as well.

After 1950, disaster teams expanded with formal state responses that differed from the earlier 20th-century voluntary responses of the Red Cross. At this time, growing world political tensions led to new conceptions of disaster relief. The United Nations had formed in 1945, and the Marshall Plan had succeeded in rebuilding war-torn Europe. This was the context for the growth of international humanitarian aid and, concomitantly, an international disaster relief network that included health care. Rather than private ad hoc initiatives, intergovernmental agencies became more prominent. Among others, these included UNICEF and WHO.\textsuperscript{38}

In the 1940s, international nongovernmental organizations, or NGOs, such as Oxford Committee for Famine Relief (Oxfam) and Cooperative for Assistance and Relief Everywhere (CARE) were established. National governments were also taking on greater roles in disaster relief. In the United States, President John Kennedy created the U.S. Agency for International Development (USAID), and in Canada, the Canadian International Development Agency (CIDA) was formed. Nurses and physicians worked in each of these agencies. The organizations expanded their work in developing countries as well, especially in those that had recently won independence from their colonial masters.\textsuperscript{39} An Oxfam publication noted that these agencies “could move much more quickly than could governmental and intergovernmental organizations and could often go where governments could not.”\textsuperscript{40} One sociologist has argued, “The private relief and...
Prelude

development organizations, by dressing in ‘neutral’ clothing, could venture into politically sensitive areas that were out of bounds to governmental agencies.”

This happened in the 1967 to 1970 Nigerian civil war. The war led to a public health emergency when a segment of the Nigerian population was displaced and food was cut off to them. Like other disasters, the war generated large-scale displacements of people and resources, and women nurses and physicians played key roles. Yet, little is known about emergence that occurs in conflict situations. Indeed, war complicates the notion of emergent behavior because new groups are constantly being formed.

I analyze this question in my current research on mission physicians and nurses in Nigeria in the mid-20th century. Complex political and religious tensions occurred as Catholic women, working through international networks, attempted to provide medical and nursing care during this period of instability. One important document I found is a diary by Sister Pauline Dean, a pediatrician and a Medical Missionary of Mary who worked at St. Mary’s Hospital in Urua Akpan. Sister Pauline wrote her diary from January to September 1968, the period during which her hospital was in the midst of the conflict. At that time, two nurse midwives, Sisters Eugene McCullagh and Elizabeth Dooley; two physicians, Sisters Pauline Dean and Leonie McSweeney; and administrator Sister Brigidine Murphy staffed the hospital. St. Mary’s had begun in 1952; at the time of the civil war, it boasted 150 beds, a large surgical clinic, and a training school for midwifery.

The Medical Missionaries of Mary had come to Nigeria from Ireland in 1937 to do both mission and medical work. During this period of violence and upheaval, however, they shifted their understanding of mission from conversion of souls toward humanitarian relief. The Catholic Church was one of the private agencies that played a significant role in the civil war. Although they had made little impact in the northern part of Nigeria, which had a Muslim majority, Catholic missionaries were more successful in the southeastern region, particularly among the Ibo (Igbo). For the Irish missionaries, Nigeria was the centerpiece of their “religious empire,” with more Irish missionaries concentrated there than elsewhere in the entire world. By 1965, the eastern area had more than
2 million conversions. The Irish also made great inroads in education and health care, where the British colonial state had not played a large role.

Nigeria was formed in 1914, when Britain joined the two northern and southern protectorates, and it received full independence in 1960. The civil war that began in 1967 was between the eastern region of Nigeria (renamed Biafra) and the rest of the country. Biafra declared itself as an independent state, which the federal military government of Nigeria regarded as an act of illegal secession, and the Nigerian government fought the war to reunite the country. One million people had fled to the East, and by April 1968, Biafrans had flooded into a landlocked enclave entirely surrounded by federal forces that blockaded all the roads. Western nations were unwilling to violate Nigeria’s national sovereignty and channel assistance across the border. The 30-month war ended in 1970 when the revolt collapsed.

Cooperation occurred among many groups in Biafra: missionary nurses and physicians, priests, UNICEF volunteers, local people on the ground, and private international and church aid groups. Biafran women helped as nurses and midwives, social workers, caretakers of children, and distributors of relief. The Medical Missionaries of Mary worked out of their hospitals and clinics in the eastern area. Although most Protestant organizations fled, the sisters and many Irish priests made the crucial decision to stay in Biafra.

In her diary, Sister Pauline gave eyewitness accounts of aerial bombardments of her hospital, people being killed, roadblocks established by soldiers, and the disease situation in the refugee camps. The diary provides a vivid account of the most severe health and nutritional problems of the war’s effect. Her first entry, on January 23, was an acknowledgment of the food problem: “Food was scarce so we started to farm. Planted pumpkin, melon, and okra.” On January 28, she noted the turmoil of the region: “Plane and two thuds in OPD [outpatient department]. I did not hear because of screaming children.” Food issues continued to be a problem, and on February 14, she went to Use Abat to get yams. On February 19, she wrote,

Bad day trying to do Male Ward, Children’s Ward, and 2 clinics. Head just doesn’t work after 1:30 when working at such
a pace. Continued rounds 4–7:20 and called down again at 7:30 pm. Up at night 1:20–4:45 am. [B]reech delivery and then another delivery by vacuum.

Another “bad day” was February 20; on the 21st, she was “up at night 2–5 am” and the next day faced 108 patients as the only doctor.\textsuperscript{51}

The hospital was bombed on March 3, after which the sisters treated 21 wounded people. On March 5, Sister Pauline went to a hospital in Aba, where she “begged for some blood giving sets” and received them. The next day she went to Ikot Ekpene to get splints but had to leave quickly because of an air raid there. Throughout the month, in addition to caring for patients, the nuns tended their garden, helped at St. Vincent de Paul’s bazaar to get clothes for refugees, and found families for orphaned children. On March 25, Sister Pauline and her colleagues treated 45 outpatients as planes flew over them, and then she and Sister Leonie worked in the operating room all afternoon.\textsuperscript{52} Most of the secular nurses had left the hospital to be with their families, and priests began assisting the sisters with feedings and care of babies. On April 3, Sister Pauline wrote, “Father Johnston did well on night duty leaving everything in ship shape. Father Frawley was heard saying to him last night: ‘Be sure you have plenty of nappies before you go because I ran short last night.’”\textsuperscript{53}

On April 26, Sister Pauline held a huge clinic and gave instructions to the priests on how to put on sterile gloves. The following day, one of them “scrubbed up” to help her in the operating room.\textsuperscript{54} In this emergent situation, the existing mission hierarchy blurred: Sister doctors taught priests how to be nursing assistants and even how to change diapers.

In the eastern region, where military operations were the most active, farming could not take place and famine resulted. Although the exact number is unknown, one Irish priest reported that “more than 2 million have died as a result of the blockade set up by Nigeria.”\textsuperscript{55}

Because of the famine, an international ecumenical airlift began operating in violation of Nigerian airspace and without Nigerian authority. In 1968, Protestants and Catholics, with financial support from the American Jewish community, formed the Joint Church Aid organization. These emergent groups were joined by Protestant church
agencies in Denmark, Norway, Sweden, and Finland in forming an international Joint Church Aid group. Much of the relief material raised internationally came through these agencies, along with a Canadian group, the World Council of Churches, Africa Concern, and Oxfam. All these agencies proclaimed their neutrality even as they defied the federal blockade, often under gunfire, and flew in medicines and food to Biafra, despite the fact that the Nigerian government had banned outside aid flights.56

The International Committee of the Red Cross also had an airlift, but it withdrew after one of its planes was shot down and four of its relief workers were killed. The airlifts were the only remaining lifelines for those in the eastern enclave. The aid agencies used a widened stretch of blacktop road at Uli Airport as a nighttime landing strip for the supply planes that flew in from neutral sites. The airstrip was bombed periodically.57

Obviously, the Nigerians were in the majority, but the voices of the people on the ground are silent in missionary archives. Photographs again can be useful. One shows UNICEF and Joint Church Aid workers posing alongside Nigerians who all were rendering service at Uli Airport.

Historians also can read between the lines of written documents. Eventually, the government forced the sisters to evacuate, and they first said goodbye to a Mrs. Hogan, a Nigerian nurse midwife who had trained in England. Sister Pauline mentioned her several times in her diary, although she gave few details of Mrs. Hogan’s work and none of her background. When the nuns left in September 1968, Mrs. Hogan stayed behind.58

The sisters had another key resource on their side: Nigerian sisters in their congregations and in others who could maintain the hospitals and schools after the expatriates left.59 One photograph shows a teacher, Sister Joseph Theresa Agbasiere, a Holy Rosary sister, comforting a woman and baby.

This photograph is important in showing the local response of Nigerians caring for themselves. Photographs also reveal that, in this case, emergent groups included a mix of people. Those affected by the disaster included the church workers, local citizens, and international workers who were present to provide relief, shelter, food, and health care—“all important disaster functions.”60
The Catholic Church’s role in the conflict, however, caused considerable political controversy. The Nigerian government was hostile to the priests, sister nurses and physicians, and other relief agencies, arguing that they prolonged the war by feeding the enemy. To the government, this work was illegal, and it became the main reason for its decision to expel 300 priests and 200 sister nurses and physicians from the country. Only a few were invited back later in the 1970s.

The press vilified the Red Cross for not confronting the Nigerian government. Indeed, the international media dwelt extensively on photos of starving Biafran children, which shaped the disaster discourse and grabbed the attention of the public. The French, who had maintained some support for the Biafran government, were especially indignant. What resulted was a new, more “militant” generation of relief organizations, including the French Médecins sans Frontières (Doctors Without Borders) and the group called the Irish Concern. Since then, these groups have been very active in disaster relief.

Although I discussed earlier the role of race in emergent phenomena, research can also inform us about gender. Debate abounds as to “whether men or women are more involved in [emergency responses] and what types of roles they play in disaster.” Most results show a gender differentiation, with women’s work restricted to domestic duties and the provision of sympathy and psychological support. A history of nursing in disasters, however, shows something different. During the Biafra conflict, for example, it was mainly the men running the airlift who received the media coverage. Yet, my sources illustrate women in the role of nurses and doctors in the thick of the suffering. They performed several tasks that definitely were not restricted to domestic labor and mere provision of sympathy.

To conclude, until the late 1980s, research on emergent phenomena included studies of physicians, nurses, firefighters, and other relief workers who “remained the preferred approach to disaster management.” In the 1990s, in addition to disaster assistance, scholarly interest began to include disaster prevention and risk reduction, bringing in engineers, geophysicists, and meteorologists. Rather than strictly reacting to disasters with firefighters, search-and-rescue teams, and emergency medical care, greater attention was paid to anticipating and
preventing disasters. For example, in 2005, Portugal took the lead in urging the European Union to put in place a disaster warning system in the Atlantic and Mediterranean regions.67

However, as the cases described here reveal, one cannot plan or prevent all disasters. As another example, during the Tokyo subway sarin nerve gas attack in 1995, St. Luke’s Hospital received most of the patients. Prior to the attack, the hospital had a disaster plan that focused on conditions from earthquakes, fires, or floods. Officials had never considered a chemical disaster.68

So, why is all of this important? Much still needs to be learned about emergent response groups. Sociologists argue that “some groups of people are known for their ability to remain cool and stay clear-headed under pressure, including veteran military officers, [as well as] fire and police commanders.”69 Mayors of cities and others who respond to disasters can also benefit by observing nurses and physicians at their regular work as they cooperate and communicate with many other health care workers daily under extreme pressure. Nurses and physicians are ready for contingencies. They do this every day. After the tsunami in Japan in 2011, 3,000 nurses immediately volunteered to work. They were ready. Likewise, after the Boston marathon bombing on April 15, 2013, a reporter asked a trauma surgeon at Massachusetts General Hospital, which had received many of the injured, about his situation. The doctor replied, “This is work. We just go to work.”70 No doubt nurses were right there with him. These professionals have to gear up for the unexpected and quickly adjust. Policies and protocols may no longer apply as expediency and patients’ needs take priority.71

To understand and effectively deal with disasters, multidisciplinary approaches are needed, including meteorologists, engineers, anthropologists, lawyers, political scientists, economists, journalists, and others.72 I suggest that as we study these approaches, it also is important to include historians and nurses in any research on disaster response.

—Barbra Mann Wall

NOTES


10. Ibid. See, in particular, chapters 1, 2, 5, 6, 11, and 13.


15. Nellie May Brown to Mother, April 20, 1906, CHS.


24. Luci P. Givin, Texas City Disaster Memoir (Galveston, TX: University of Texas Medical Branch Library [hereafter cited as UTMBL], Blocker Historical Collections, 1948).

25. Ibid.

26. Sam to Folks, April 16, 1947, UTMBL. Senior students at the scene in Texas City gave plasma, with one medical student claiming to have given 40 units the first day. They also took medical histories and performed physical assessments.

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28. Sam to Folks, April 16 and 23, 1947: 1–2, UTMBL.


34. For an interesting analysis of the disciplinary focus of nursing history, see Patricia D’Antonio, “Toward a History of Research in Nursing,” *Nursing Research* 46, no. 2 (1997): 105–110.


38. Hannigan, *Disasters Without Borders*.

39. Ibid.


43. Drabek and McEntire, “Emergent Phenomena and Multiorganizational Coordination.”

44. Sister Doctor Pauline Dean, MMM, Biafra War Diary, Urua Akpan 1968 (hereafter cited as Diary), Archives of the Medical Missionaries of Mary, Drogheda, Ireland (hereafter cited as MMM).

45. “Article by Sister Doctor Margaret M. Nolan,” MMM.


51. Ibid., February 19, 20, 21, and 22, 1968.

52. Ibid., March 3, 5, 6, 12, 19, 23, and 25, 1968.

53. Ibid., April 3, 1968.

54. Letters to “mother” dated April 1969, MMM.

College, Swarthmore, PA (hereafter cited as Clearing House). The Clearing House for Nigeria/Biafra Information was established to provide information about the Nigeria/Biafra War. The organization was headquartered in New York and was in operation from October 1968 to February 1970.

56. The dates for the formation of Joint Church Aid-USA conflict, with some sources saying it was formed in December 1968 and others January 1969. See News Release, Joint Church Aid-USA, Inc., October 1 and 17, 1969; DG 168, Acc. 81A-120, Box 3, folder 1.8: Africa Concern and Joint Biafra Famine Relief (Ireland), Clearing House.

57. Wiseberg, “Christian Churches.”

58. Ibid., July 7, 1968.

59. Sister Agnes Maria to Mother M. Reparatrice, September 11, 1968, 11/FOU/6(H)/183, MMM.


63. Hannigan, Disasters Without Borders, 56.


69. Rodriguez, Quarantelli, and Dynes, Handbook, 49.

70. Peter Fagenholz, interview on MSNBC, April 15, 2013.

CHAPTER 1

Typhoid Fever Epidemic, 1885 to 1887, Tasmania, Australia

Madonna Grehan

The nursing is everything in bringing persons successfully through typhoid, the hospital is the place to get that nursing....I was struck by their painstaking industry and the risk they ran of contagion.1

Mr. Thomas S. Willison, the author of a letter published in Hobart’s The Mercury newspaper in 1887, was one of the numerous grateful individuals and families who publicly lauded nurses of Hobart General Hospital (HGH) for their care during a lengthy epidemic of typhoid fever in the Australian colony of Tasmania. Willison wrote that the nurses’ efforts were so extraordinary during the crisis that they deserved an honorarium. In his 6 weeks as a typhoid patient, Willison observed that the nurses’ focus at all times was “the comfort, happiness, and ultimate recovery of the patients under their charge, their duties frequently being of the most patience-trying character.” His remarks struck a chord. A campaign of support for bedside nurses at HGH culminated in a celebratory public function held in August 1887. At that event, 25 nurses were awarded medals for meritorious services
in nursing. The specially minted, 18-carat-gold, Maltese crosses were gifts from a grateful Tasmanian public.²

The medals were presented in recognition of the “great and good work performed during the past half-year by the nursing staff.”³ The evening’s proceedings at the Tasmanian Hall included a performance of Thomas Williams’s 1866 one-act farce, Pipkin’s Rustic Retreat, and a dance. The HGH nurses and the lady superintendent, Miss Harriet Munroe, provided the supper. At the ceremony, the 19 nurses present stood on the stage in a semicircle, dressed in their nursing uniforms, looking “appropriate, pretty and effective.”⁴ Lady Felicia Hamilton, wife of Tasmania’s governor, pinned the decorations to each nurse’s breast. Scotsman Dr. Thomas Smart, honorary surgeon and chairman of HGH’s Board of Management (BoM), was effusive in his praise. He noted that it was a common occasion to award men with medals for sporting; yet it was “a comparatively untrodden path” in the history of Tasmania to distinguish nurses for merit, but as Smart saw it, many Hobartians owed their lives to “a trained, educated, and zealous nursing staff, acting in unison with the medical officers” because the nurses were unafraid of typhoid and selfless in the face of this most potent of enemies.⁵ Speeches at the August festivities pronounced that a fraternal plinth supported the nurses’ labors during the crisis. According to Smart, success in battling the protracted epidemic was the result of harmony: harmony between the nurses and harmony between the nurses and the medical staff.⁶ A correspondent to a local newspaper underscored this spirit of fraternity in the nurses’ battling of the epidemic. He declared the nurses to be “the Florence Nightingales of our time.”⁷

The 1887 awarding of the medals for meritorious services was a significant milestone in Australian nursing history. It is thought to be the first time in Australia that civilian nurses, as a group, were decorated for their work in a public health emergency.⁸ Reporting of this congratulatory occasion gave the impression that HGH was a collegial workplace. As this chapter shows, however, the collegiality that characterized nursing at HGH during the 1887 epidemic was entirely new. Right up to February 1887, and for years previously, HGH was plagued by a crisis of professional tensions and deep disharmony.
1 Typhoid Fever Epidemic, 1885 to 1887, Tasmania, Australia

Nurse Margaret Stanfield’s medal.
Reproduced with permission from the Collection of the Tasmanian Museum and Art Gallery.
On the surface, these conflicts seemed to be little more than acrimonious spats between individual nurses, yet they involved doctors, patients, and the Tasmanian government. In what was a toxic workplace, animosities festered throughout 1885, exploded in late 1886, and then lingered throughout 1887 as the typhoid epidemic raged.

Drawing on administrative records and detailed newspaper reporting of events, this chapter teases out the tensions and ambiguities around the awarding of medals for meritorious services in nursing. It examines what was at the heart of HGH’s problems, and how the hospital’s toxic climate was transformed into one of collaboration during the typhoid epidemic. The chapter is presented in two parts. The first part introduces the disease typhoid. It describes the intensive nursing that was so necessary in cases of typhoid and explains how the epidemic impacted the HGH. The second part addresses the crisis in the nursing administration at HGH in the 2 years preceding the typhoid epidemic and its subsequent resolution during the year of the epidemic.

TYPHOID IN TASMANIA

In the 19th century, Tasmania, an island 300 miles to the south of the Australian mainland, was one of Australia’s seven colonies. With many ports in this island colony, Tasmania was no stranger to infectious diseases. Since the early 1880s, typhoid had been on the rise in most parts of Australia. Geographical analysis by Roger Kellaway points to a coalescence of climatic and social conditions as responsible for typhoid’s transition from an endemic to an epidemic: A 5-year weather cycle of hot, dry summers in a row that reduced water quality, less water for street cleaning, a parallel increase in the population, the continued existence of cesspits, use of unhygienic “pails” for night soil, and illegal distribution of that waste (what the newspapers euphemistically referred to as “nuisances”). Household slops thus mixed with human and animal excreta in open drains and gutters or soaked into the soil. In Tasmania, endemic typhoid transitioned to an epidemic status in the northern city of Launceston in 1885 and persisted there until 1886.
In late 1886 and 1887, epidemic typhoid emerged in Tasmania’s southern capital, Hobart.

Cases of typhoid were often managed at home in the late 19th century, but both HGH and Launceston General Hospital (LGH) had fever wards and accepted a range of patients. Unlike the many charity-based hospitals in Australia, HGH and LGH were government-run institutions, established early in the 19th century. Tasmania at that time was the convict colony of Van Diemen’s Land. HGH and the forerunner of the LGH accommodated regimental soldiers and other personnel of the civil administration. These early hospitals consisted of tents and temporary structures, but permanent buildings eventually replaced them, in Hobart (1820) and in Launceston (1863). After transportation of convicts ceased, the general public was able to gain admission to both institutions. Some people were accepted as charity cases; some were paying patients. Both hospitals played a significant role in the management of typhoid in Tasmania.
In the 1880s epidemic, the majority of the individuals with the disease were adults aged 15 to 45 years. Unsurprisingly, typhoid was described as an “insidious foe,” because it was rather different from a natural disaster or other such calamity of scale. It was an extremely taxing disease for those afflicted and difficult to treat in a pre-antibiotic age. Caused by the bacterium *Salmonella typhi*, its early manifestations are diarrhea, pyrexia, general debility, abdominal pain, and rose-colored spots on the belly and chest. The disease can progress rapidly, manifesting in complications that include agitation, delirium, and ulceration of intestinal linings. These tissues become fragile and hemorrhage, and eventually the bowel perforates. What care patients received in the 19th century is hard to gauge without extant medical records, but some indication comes from advice articles written by a trained nurse, Frances Gillam Holden, matron of the Sydney Children’s Hospital. Holden’s articles were published in *The Launceston Examiner* newspaper under the banner “Typhoid or Ignorance?” and in *The Mercury* as “What Typhoid Is and How to Nurse It.”

In 1875, Holden was working as a nurse at HGH with two of her sisters when she contracted typhoid. Clearly she was speaking from professional and personal experience when she wrote that “all the skill and resources of the most experienced nurse” were necessary in cases of advanced typhoid. Holden described typhoid as “an invisible, intangible enemy” with two main elements leading to fatalities: “first, from not knowing the salient points of the disease which require very special care and second, from not beginning this special care from the outset.” She believed that if basic steps were followed “steadily, perseveringly, quietly, cheerfully and hopefully,” the patient had every chance of recovery. As she put it, the means to recovery were “not difficult, mysterious or vague.”

**THE IMPORTANCE OF NURSING CARE**

Holden explained typhoid as “intestinal inflammation.” Using metaphors, she conveyed the fragile condition of a patient with typhoid. She likened Peyer’s patches to angry red ulcers on a piece of damp blotting paper.
Typhoid Fever Epidemic, 1885 to 1887, Tasmania, Australia

paper, which the slightest breath of air threatened to tear. She emphasized that moving a patient from his bed required three people to do it safely, and recommended that the nurses carry the patient as if he or she were a “dishful of liquid diamonds.” The fundamentals in nursing typhoid cases were

perfect cleanliness of the room, person and linen; frequent [three-hourly] changes of bedclothes and airing of blankets, frequent sponging in high temperature; steady and quiet lifting when moving…good liquid nourishment, good beef tea, mutton broth or chicken broth, or Ice Company’s milk…weak acid drinks and ice to suck…plenty of fresh air.17

Aside from frequent sponging, a hydropathic treatment called “packing” emerged in the 1880s. Packing acted as “a cooling poultice,” using wet sheets insulated by blankets to lower a patient’s temperature. To pack a patient, the nurse placed several blankets on a bed, in layers. On top of the blankets, she placed a cold wet sheet with the water wrung out of it. Nurses then placed the patient on the wet sheet and wrapped him or her in it, and wrapped the sheet in the blankets. Every 10 to 15 minutes, and depending on the degree of fever, the nurses undid the entire bundle, renewed the wet sheet, and replaced the swaddling blankets, continuing the whole process for an hour. After that, the nurses put the patient in a tepid bath, or bathed him or her in bed until the temperature dropped.18 This was a time-consuming process, which involved several people and their labor. An alternative was a cold compress. This worked in the same way as packing but saved time, caused fewer disturbances to the patient, and required fewer people to apply. The cold compress consisted of two separate pieces of soft flannel. One piece measured 14 by 18 inches, and the other 2 by 18 inches. The larger piece formed an outer “compartment,” which held a wet compress in place. The smaller flannel was the cooling wet pack. To apply the compress, the nurse folded the smaller cloth in half and dampened it with cold water. With safety pins, she secured the wet flannel to the larger dry piece and then placed the whole compress under the patient’s back. When the cooling effect diminished, the nurse undid the safety pins,
removed the wet cloth, and applied a fresh compress. Another specific intervention Holden advised was to clean the patient’s mouth several times a day. To do this at home, she explained how to make a “mop” for the mouth by tying strips of lint to the end of a small paintbrush. This could then be used to moisten and wipe out the mouth.

On top of these essential tasks, another was changing soiled linen. At HGH, nurses changed the bed linen of typhoid patients up to seven times a day when there was high fever. Other patients had their beds made twice a day and the drawsheets reversed. The nurses changed the linen on these beds once per week. The level of industry that typhoid generated can be seen in supply statistics. In the month of April 1887, at which point HGH had 68 inpatients with typhoid, the laundry washed and dried 1,147 bed sheets, 1,002 drawsheets, 540 shirts, and 775 night gowns. These figures do not include compresses, bandages, dressings, uniforms for the nurses, and other items processed by the laundry. How the nurses managed the delicate subject of patients’ excreta is unclear. For those nursing typhoid cases at home, Hobart’s local board of health recommended disinfection of all bowel motions, but gave no instructions on the disinfection process. Notably, Miss Holden’s published advice did not refer to excreta either, but she did recommend disinfection of soiled linen, first by placing it in a tub of water with carbolic added, and second by thorough cleaning and exposure to fresh air. Deaths demanded a different regime of practice from the nursing staff. When a typhoid patient died, the nurses and wardmaids at HGH removed everything from the bed and the surrounding area. They took off the mattress and left it to air for at least one day. Likewise, the empty bed frame aired for a minimum of 24 hours.

In an era before intravenous therapies, hydration by mouth was critical. What the typhoid patients were given at HGH depended on the status of an individual’s intestine. Milk was available, but it tended to sour easily in the hot summer weather. The main source of liquid nutrition was beef tea, a strained form of beef stock. Every day during the epidemic, the cook at HGH made 50 pints (28 L) of beef tea. The nurses also dispensed prescribed forms of alcohol referred to as “stimulants.” There was some dispute between Tasmania’s doctors about the wisdom of giving stimulants to typhoid patients, but at HGH,
these were a foundation of treatment. The daily allowance consisted of 12 fluid ounces of brandy (350 mL) plus a bottle of champagne, supplemented with wine, ale and stout, and cordials if the doctor ordered them.\textsuperscript{26} Crushed ice was another valuable therapeutic agent, but its supply was never guaranteed. From late 1886 to January 1887, HGH used 32 pounds of ice during what was the summer typhoid season. These volumes could not be produced in Tasmania; therefore, the ice was made on mainland Australia and shipped to Tasmania by sea. Just as the epidemic escalated in early 1887, Tasmania’s supply of ice ran out, owing to a severe drought in southern Australia.\textsuperscript{27}

When typhoid was endemic in Hobart, mortality stood at around 15 cases per year.\textsuperscript{28} With the onset of the epidemic in January 1887, and a rapid spread, death numbers increased. From January to mid-April, 111 cases of typhoid were admitted to HGH, 17 (15.3\%) of which ended fatally.\textsuperscript{29} In March alone, there were 68 admissions for typhoid.\textsuperscript{30} In this demanding environment, staffing the hospital was a challenge. HGH had a daily average of 80 inpatients in nonepidemic times, although it had a capacity for 140 beds. In 1887, 22 nurses were employed for the entire hospital, something that \textit{The Launceston Examiner} newspaper judged as “wanton extravagance.”\textsuperscript{31} This critique was unfair because the 22 nurses covered daytime and nighttime shifts and the one day off that the nurses were entitled to. Even when wards were not full of inpatients, the nurses were fully occupied while on duty, sewing and mending, padding splints, preparing other equipment, and sometimes cleaning.\textsuperscript{32} During the epidemic, head nurses worked particularly long hours, usually 7:00 a.m. to 6:00 p.m., 6 days per week, with 45 minutes for dinner and 30 minutes for lunch.\textsuperscript{33} They had to supervise their subordinates, too, including the wardmaids who cleaned the kitchen utensils and cooking pots used for preparing and serving the patients’ food and drink. Each ward had its own supply of this equipment.\textsuperscript{34}

The nursing care of typhoid patients was constant; it required regular sponging, compressing, hydration, feeding, and recording the various treatments and stimulants given. Going by Miss Holden’s advice on the number of nurses needed just to move a serious patient, it is easy to see how intensive this whole nursing effort was. It is hard to know exactly what the staff-to-patient ratio at HGH was during this period.
At the epidemic’s peak, 14 of the 22 nurses were working in the fever wards, assisted by five wardmaids.\textsuperscript{35} Taking April as an example, while 14 nurses managed the 68 typhoid inpatients, the other 8 nurses managed the rest of HGH’s patients. It did not help matters that, around this time, some of the nurses fell ill. In April 1887, advertisements placed in \textit{The Mercury} newspaper called urgently for two or three probationers to join the hospital’s staff because of the number of fever cases. The lady superintendent sought applications from “Earnest, educated girls, with good health and free from fear.”\textsuperscript{36} Good health and a lack of fear were useful attributes for nurses who would care for patients with typhoid, given that HGH was called “the headquarters of death” by one newspaper and LGH a “fever breeding establishment” by another.\textsuperscript{37} This advertisement underscores the enormous risk that bedside nurses faced in caring for typhoid cases. They dealt with highly infectious bodily fluids as a matter of course, and it is hard to know how they protected themselves, if at all. It seems likely that doctors faced a reduced risk of infection because, although they examined patients, their exposure was intermittent.

\textbf{Ensuring Safety}

Even with the arrival of the cooler months, the epidemic continued unabated. In June 1887, HGH accepted 66 new cases of typhoid, in what was the first month of winter. Every fever bed was occupied “and extemporized accommodation” was in use.\textsuperscript{38} In many cases, the patients were moribund on admission after being managed at home for weeks. Under these circumstances, the confusion that presented in advanced typhoid added a particular complexity to bedside nursing care. Delirious patients moaned, cried out, and disturbed recovering patients. Some could be violent while seeming lucid. On occasion, the nurses restrained patients for safety’s sake. To do this, the nurses placed the patient on the bed in a supine position. They then applied restraints

\begin{quote}
in the gentlest way that can be effectual. Cotton wool having been laid over the ankles, calico bands are fixed around them and firmly attached to the bottom of the bed. In this way the
\end{quote}
feet are kept secure. The upper part of the body is held down by a sheet extending from the throat to the knees, which is fastened down to each side of the bed.39

Even this level of restriction was not always sufficient to restrain confused patients. Right at the peak of the epidemic in June 1887, the hospital was under enormous strain. A strong and fit local footballer was an inpatient at HGH, suffering from advanced typhoid. The nurses had restrained him in the usual way, but he managed to escape when the nurse left to help in a nearby ward. With brute force, the man tore off the calico bands and sheet, ran out of the ward, leapt over a cleaner working in the corridor, mounted the hospital’s stone wall, and walked along its perimeter until he found a spot to jump down. He landed just outside the hospital grounds where he was stopped. After just 7 minutes of freedom, this rambling patient was returned to the ward by the porter. The nurses placed him immediately into the straight waistcoat; he was only the second case in 6 months to be confined to that extent.40

Individuals with advanced typhoid could muster enormous reserves of strength, despite their delirium and underlying weakness. In August 1887, another delirious typhoid patient escaped. This occurred when a senior nurse went for her meal, having left a junior nurse in charge of a ward that housed two patients. One patient was recovering from typhoid and the other was seriously ill. The junior nurse completed her work and went to help her colleagues elsewhere. She put the recovering patient in charge of the ward, as was usual practice, and told him to ring for help if it was needed. No sooner had this nurse left the ward than the seriously ill patient, a profoundly deaf 30-year-old man with delirium and a history of mental illness, declared that he wanted to destroy himself. He squeezed through a partly open window, jumped to the ground, and made his way out of the hospital grounds. Soon after, a policeman retrieved him from the street and returned him to the ward. The nurses isolated this distressed man in a special room where the walls and floor were padded with mattresses to minimize the risk of self-harm. Every 30 minutes, nurses checked on these isolated patients. This patient died a week later from typhoid complications. A coroner’s inquiry into his death revealed that he had attempted escape before, but the senior nurse
on duty that day judged that restraint was not necessary because the patient’s delirium was transient. The inquiry also revealed typhoid’s effects on the nursing staff. On the day that the escape occurred, HGH operated on skeleton staff because several of the nurses were seriously ill with typhoid. This meant that work done normally by four nurses had to be done by two. Junior nurses, not usually placed in charge, also had to take on more responsibility in these circumstances.41

The intensive nursing that Holden described became crucial in the 6 months from January to June 1887, when HGH admitted more than 210 typhoid patients. The unrelenting workload inflicted a heavy toll on the nurses. According to one of the doctors, the nurses were “in a low
state of health from the strain and anxiety of the past three months,” and desperately needed rest.42 In April 1887, the BoM had declared that the conduct of the nursing staff warranted the “highest commendation,” given the large influx of typhoid cases. Acting Lady Superintendent Sarah Wane reported, “Nothing could be more satisfactory than the spirit with which the work of the nursing staff had been attended to during the present trying time.”43

DUAL CRISSES OF TYPHOID AND DYSFUNCTIONAL RELATIONSHIPS

The BoM was proud of its nurses working together under these crisis conditions, for good reason. For some time, the whole nursing staff, and indeed the hospital, had been laboring under the strain of dual crises: the typhoid epidemic and an atmosphere of crisis. This latter predicament was characterized by disharmony, antipathy, and dysfunctional relationships. In fact, The Launceston Examiner described HGH and its ongoing crisis-ridden atmosphere as “a kind of social volcano with its peculiar attendant eruptions.” In this social volcano, mud was not thrown. It was a toxic environment where, as the newspaper put it, “mud springs” burst forth.44 The origins of this poisonous climate had little to do with disease, but they manifested in a lengthy crisis nonetheless. In the second part of this chapter, the long-standing crisis at HGH preceding the months of epidemic is examined.

NURSING ADMINISTRATION AT HGH BEFORE THE EPIDEMIC

It is fair to say that HGH had its fair share of administrative concerns during infectious disease challenges in the 1870s and 1880s, because the hospital failed to keep up with community expectations of health care.45 The functioning of HGH was overseen by its BoM, a committee of a dozen men, including the honorary medical officers, the house surgeon
and his assistant, and several prominent gentlemen of Hobart. There were yearly elections, but the honorary doctors were long-standing board members. Until 1880, rules of the institution decreed that the BoM controlled the finances of the institution. Day-to-day decisions about nursing at HGH, including the hiring and firing of staff and organizing clinical care, were the remit of the lady superintendent. That arrangement changed after an incident in which the lady superintendent fired a senior nurse for insubordination. The nurse appealed to the BoM and she was reinstated, against the wishes of the lady superintendent. Subsequently, the BoM assumed responsibility over appointments and dismissals because, as one BoM member put it, “it was undesirable that any such power should vest in the lady [superintendent] at all. It was an invidious responsibility which ought not to devolve on her.”

In 1883, this rule was reversed when Mrs. Essie Ann Wilson, at that time a head nurse at HGH, was appointed the lady superintendent. An English woman, Wilson had taken up nursing after the death of her husband, reputedly a high-ranking civil servant in Ireland. She had nursed at St. Bartholomew’s and St. Luke’s Hospitals in London for about 2 years. Wilson had neither certificate nor diploma from either of the London hospitals, but did have testimonials from reputable doctors. Wilson was well liked and selected from 33 applicants. It seems that the BoM had great faith in Mrs. Wilson’s management potential. Under the rule change, she was given control over all of the nursing staff, with power to suspend or dismiss a nurse or servant in cases of disobedience to order, misconduct, or neglect of duty. But it came with a caveat: The lady superintendent was to report these incidents to the BoM for them to deal with. She was also to work with HGH’s house surgeon and his assistant on a committee to deal with “selection, appointment and distribution of the nurses.” Changing rules about who selected the nurses did not ameliorate a fundamental and ongoing problem that all HGH administrators faced: attracting and maintaining an ongoing supply of nurses to do the work of the institution. Not only that, the loosening of the rules created confusion in the following months.

Staffing was a perennial problem, and of course was not unique to Tasmania. Colonial hospitals throughout Australia, both charitable institutions and government-run institutions like HGH and LGH, used
apprentice nurses as the backbone of staffing because they were cheap to employ. Hospitals offered “training” in nursing for these apprentices. Even by the 1880s, however, there was no universal agreement on the fundamentals of training: what it consisted of, how it should be delivered, or by whom. This guaranteed a lack of uniformity in the “trained” nurse as a product of training schemes.48 At HGH in the early 1880s, teaching of probationers was the responsibility of the lady superintendent, and her experienced senior nurses were expected to undertake instruction at the bedside. At HGH, generally a 2-year apprenticeship was served, without a curriculum, without any examinations, and without the issue of certification or a diploma. When a nurse wanted to leave, she simply asked the hospital’s doctors for a testimonial that affirmed her qualifications and skills.49

Between January 1883 and June 1885, 22 of the hospital’s apprenticed nurses abandoned their term of service before completion. According to one of HGH’s doctors, 18 of these probationers “bettered” themselves in mainland Australian colonies, courtesy of testimonials provided by HGH doctors.50 It is not surprising that probationers sought to improve their lot by leaving Tasmania, because wages were higher on mainland Australia. Senior nurses also could earn more money outside Tasmania. Toward the end of 1884, shortages of staff at HGH were evident, with too few probationers attracted to train. Even if new probationer nurses joined the hospital’s ranks, there were not enough senior nurses in place to teach them how to nurse, because five positions for senior nurse had been vacant for most of the year. HGH could manage with fewer staff while diseases, such as typhoid, were not flourishing. But the deficit in nurses became pressing when admissions with typhoid increased, usually during the summer months.51

In late 1884, after Wilson had been a lady superintendent for a year, the staffing situation was dire. Wilson advised the BoM that she could not fill the five vacant positions for head nurses, despite advertising in mainland Australia. She recommended that “two trained head nurses from the Mother Country” be secured at once.52 Given that Wilson was English, it is possible that she expected English nurses to be recruited. But Dr. Smart assumed responsibility for hiring new nurses. He was a Scot and so asked his brother in Edinburgh for help. Dr. Andrew Smart
subsequently secured the services of three trained, certified, experienced, and highly recommended head nurses from the Edinburgh Royal Infirmary. They were contracted to work at HGH each for a period of 3 years, and on the understanding that they were to introduce a system of nurse training. Many Australian hospitals at the time were yearning for the uniformity in training that appeared to be emerging in Britain’s modern hospitals. The Edinburgh Royal Infirmary was one of them, with a reputation of producing skilled and disciplined nurses under the tutelage of Angelique Pringle, a protégé of the Nightingale School, and reputedly “one of the best nurses in the world.”53 Smart told the BoM that the new recruits were about 30 years of age and had excellent testimonials. With substantial experience as head nurses in charge of large wards, and accustomed to the instruction of probationers,54 they seemed to be just what HGH needed. A month before the nurses from Scotland were due to arrive in Tasmania, Wilson appointed an English nurse named Julia Ayres. Ayres had trained at St. Bartholomew’s Hospital, as had Wilson.55 Although this appointment filled a vacancy, Wilson engaged the new nurse without consulting the BoM first. This act later had implications for the lady superintendent and the nurse, because she was deemed to have contravened HGH’s rule on hiring staff.

Six months passed from the time of Smart’s request for nurses to their arrival in March 1885. The nurses from Edinburgh were referred to collectively as the “Scotch Sisters” in BoM discussions, in communications with the lady superintendent, by the newspapers, and later by the Tasmanian Parliament. Three months after the trio’s arrival, the BoM reviewed the workings of the hospital’s nursing staff to ascertain “its cost and state of efficiency.”56 The result was a new set of regulations for nurses in training, along the lines of schemes “in the old country.” Introduced in June 1885, the regulations included a probationary period of 3 months with 2.5 years’ apprenticeship to complete training, binding contracts, lectures, examinations, the issue of formal certification on completion, and the cessation of individual doctors giving nurses-in-training a testimonial. It was some cause for celebration. For the first time in its history, HGH had a concrete framework for the engagement and education of trainee nurses. The expectation was that, under the guidance of the Scotch Sisters, the new regulations would attract a better class of probationers to HGH and
improve the nursing generally through a system of training. These recommendations likely proved effective in improving nursing care by the time the typhoid epidemic raged 2 years later.

Still, within weeks of the BoM’s 1885 announcement that the new regulations would apply, serious discord manifested among the nurses. In October of that year, the BoM decided to reduce the number of staff employed because the fever wards were empty. Disengaging staff occurred from time to time, the convention being that the most recently appointed employee should go. But the newest employees were the three Scottish nurses and they were under contract to serve for 3 years. This meant that Ayres, Lady Superintendent Wilson’s appointee, had to relinquish her position. Ayres had served HGH with satisfaction for 9 months and, not surprisingly, demanded an explanation for what she believed was her “dismissal.” From that point on, relations between Wilson and the Scotch Sisters unraveled. Over the next 14 months, the BoM, and later the Tasmanian Parliament, conducted at least five formal inquiries to ascertain the root of this disharmony.

A CRISIS IN INTERNAL MANAGEMENT
JUST PRIOR TO THE EPIDEMIC

The first investigation was conducted in August 1886 by a subcommittee of the BoM. It followed Lady Superintendent Wilson’s suspension and dismissal of Margaret Turnbull, another of the Scotch Sisters. Wilson charged Turnbull with eight wrongdoings, some dating back to months. Among them were leaving her post without asking permission and without leaving someone in charge, not supervising the cleanliness of tins used to store the patients’ beef tea, leaving empty medicine bottles on the ward, not teaching the nurses, having an untidy ward, and neglecting the patients. The inquiry uncovered numerous issues, including hostilities between Wilson and the Scotch Sisters. The subcommittee found all charges against Turnbull unsubstantiated and reinstated her.

At the heart of the Scotch Sisters’ complaints was that they were unable to put into place a system of training, owing to Lady Superintendent Wilson’s deliberate obstruction. But the Scotch Sisters also felt unwelcome. They claimed to have received only a cursory
introduction to HGH and its practices from Wilson before being sent to
work on the wards. They felt that Wilson deliberately and frequently
moved the nurses from ward to ward, which prevented any consolida-
tion of teaching, and that she corrected the sisters in front of the proba-
tioners. Allegedly, Wilson isolated the Scotch Sisters by placing them
on night duty and then on fever duty. Purportedly, Wilson also sent
the probationers working in the wards to ask frivolous questions of
the Scotch Sisters who were off duty. Jeanetta Milne, one of the Scotch
Sisters, vented her wholesale discontentment with HGH. Not only was
she placed on night duty, contrary to her engagement agreement, but
Milne claimed that Wilson interfered in the management of Milne’s
ward by speaking with the house surgeon about the patients’ care. Milne
sent the lady superintendent a firm letter demanding that she desist. In
essence, the Scotch Sisters felt that Wilson was undermining their every
effort to improve the HGH.

The investigating committee’s assessment of the disharmony was
that Lady Superintendent Wilson had erred. In engaging Ayres and sus-
pending and dismissing Turnbull, Wilson had not consulted the BoM. She
was judged not to have cooperated with the Scotch Sisters in imple-
menting the system of nurse training. Furthermore, Wilson had not coop-
erated with the BoM, or the medical staff. The subcommittee concluded
that Mrs. Wilson’s employment should be terminated, a controversial
recommendation. News of Wilson’s impending dismissal emerged soon
enough. In response, 17 of HGH’s 21 nurses signed a testimonial in her
support. Just 6 months before the onset of the 1887 typhoid epidemic,
the mood of HGH was adversarial.

Antipathy was not just pervading the nursing staff at HGH. It mani-
fested at the monthly meetings of the BoM as well. There, Drs. Smart and
Edward L. Crowther locked horns on aspects of hospital management,
particularly the management of the disputes between the nurses. Daily
newspapers reiterated these unsavory disagreements because reporters
recorded verbatim the BoM’s meetings. Thus, the literate Tasmanian
public was well aware of the crises of confidence brewing at HGH.
Crowther was an established member of the BoM and an honorary doc-
tor at HGH. He was also a member of Tasmania’s Parliament. Crowther
took issue with the BoM investigation that judged Lady Superintendent
Wilson the guilty party while exonerating the Scotch Sisters of any blame. Unable to gain traction within the BoM, Crowther used his parliamentary position to air grievances about Smart’s handling of the investigation. That forced another investigation by a different subcommittee of HGH’s BoM, conducted during September and October 1886. Controversially, the investigating committee excluded reporters from taking a record of interviews, on the basis that the proceedings were confidential.65 Their investigation, subsequently, was referred to by detractors as “the miserable secret inquiry.”66

Throughout the confidential inquiry, nurses, domestic staff, doctors, and BoM members again offered their opinion on the beneficial or detrimental influence of the Scotch Sisters, and vice versa of Lady Superintendent Wilson. Crowther accused Smart and his BoM allies of favoring the Scotch Sisters to Wilson’s detriment. Smart retaliated by accusing Crowther and his factional allies on the BoM (one of whom was Crowther’s father-in-law) of blatant partisanship against the Scotch Sisters. Most of the evidence was hearsay. Several witnesses, for instance, alleged that Turnbull, one of the Scotch Sisters, used opium because she appeared rather pale at times and often “in a very nervous condition.”67 A junior nurse claimed that she had put Turnbull into bed in the nurses’ quarters because of Turnbull’s emotional state.68 Another head nurse, Rebecca Mackay, who was not one of the Scotch Sisters, was said to be “flushed with drink” while on duty.69

This second investigation identified that HGH’s numerous woes stemmed from a lack of discipline, structure, and reporting lines. It recommended that an adequate system of training for nurses be introduced with three categories: theoretical training from the matron and staff nurses, professional training from the doctors, and practical training at the bedside from the house surgeon and staff nurses. The inquiry upheld the termination of Wilson as the lady superintendent, concluding that HGH had been plagued by “considerable disorganization…and a want of harmony between the officers which was detrimental to the interests of the institution.”70 The confidential nature of this inquiry, however, was its undoing. Allegations soon emerged of a cover-up and a conspiracy. The Tasmanian government stepped in to investigate the investigation.
Three weeks later, in January 1887, the government sanctioned Wilson’s dismissal. At the same time, Crowther lost his seat in the BoM in the yearly election. With Crowther’s and Wilson’s departures, it seemed that a major eruption of this simmering social volcano was averted, just as typhoid began its insidious spread around Hobart. But ill will pervaded HGH. At the end of February, when Wilson finally left her position at HGH, Smart asked Isabella Rathie, one of the Scotch Sisters, to supervise the nursing department until the appointment of a new lady superintendent. Rathie’s elevation was the last straw for head nurse Mackay and she resigned immediately. Mackay, according to a correspondent to The Mercury newspaper, was “the oldest and best sister of the hospital.” The situation was inflamed further when Smart declined to issue Wilson with a testimonial of her 5 years’ service at HGH. The institution seemed to be mired in chaos, with a toxic climate, dysfunctional personalities, and irreparable differences. Right at this point, typhoid began its insidious assault on the community of southern Tasmania.

A TOXIC CLIMATE CONTINUES DURING THE EPIDEMIC

Crowther, although no longer a member of HGH’s BoM, was a member of the Tasmanian Parliament. At the end of February 1887, he staged a public meeting at Hobart’s Town Hall to air his mounting grievances. Among these were negligence by HGH nurses, mismanagement of HGH, theft of alcohol from the HGH store, and treachery by the BoM. Crowther laid blame for the situation firmly at the feet of the BoM and Smart’s chairmanship. The most spectacular allegation Crowther made was that, under Smart’s management, HGH operated a “Scotch ring” of exclusion, a “little clique within a clique,” as he put it. Crowther told the meeting that

in the annals of Tasmania there was no more contemptible thing than the persecution of the matron of the hospital and orchestrating her dismissal…. There were some nurses introduced from Scotland, no doubt very able women, but from the moment they came to Tasmania there had been a sort of antagonism between
them and the matron, the result was that there had never been any harmonious working in the institution.⁷³

Going by Crowther’s version of events, the Scotch Sisters were to blame for the lack of collaboration at HGH. Most of HGH’s nurses appeared to agree with Crowther. Seventeen signed the testimonial in support of former Lady Superintendent Wilson, and several declared their views earlier to the confidential inquiry.⁷⁴ But the simple fact was that HGH’s climate was toxic and the potential for discord was high. The BoM had to do something to arrest any further enmity. As the search for a permanent replacement for Wilson continued, the BoM made a strategic temporary appointment of an emergency administrator. This act relieved Miss Rathie of oversight of the nursing at HGH and dampened the prospect of an eruption in this social volcano. A member of the BoM later reported that “within a very short time after the engagement of Mrs. Wane” the entire hospital was working harmoniously.⁷⁵

Wane, a 30-year-old English woman, took up the position of acting lady superintendent at HGH on March 24, 1887. She knew HGH well, having been a probationer in training there and then a head nurse in the early 1880s. In 1884, she was an unsuccessful candidate for the job of lady superintendent at HGH, the role to which Wilson was appointed. Wane instead took up the position of lady superintendent at LGH. It was not an easy role. During her term in office, in the space of just 18 months, three nurses and a wardmaid died from the effects of typhoid. Nurse Charlotte Pitman was the first nurse to succumb in April 1885. Pitman was a “great favorite” at the LGH and her death poignant, given her upbringing as an orphan in Hobart.⁷⁶ In March 1886, wardmaid Kate J. James died.⁷⁷ Twenty-three-year-old nurse Frances Anna Briant died 8 weeks later, in May 1886. She ailed for 77 days with the sequelae of typhoid.⁷⁸ Ominously, The Launceston Examiner newspaper declared that nothing short of martyrdom awaited nurses as they went about their bedside work.⁷⁹ Next, Nurse Elizabeth M. Delaney, afflicted for 5 months with typhoid, died in September 1886. Delaney had spent months at LGH in charge of 14 beds, which were occupied solely by typhoid patients.⁸⁰ The three trained nurses were formerly probationers in training at HGH.
When Wane relinquished her position at LGH in August 1886, after 2 years’ service, she explained to the LGH’s BoM her reasoning. Wane declared an overwhelming responsibility for the welfare of LGH’s nursing staff. She considered that the Tasmanian government had done little to improve the nurses’ living arrangements there, despite her numerous repeated requests for building and drainage works.81 Wane’s advocacy for her nurses was public knowledge because the business of the LGH, like that of HGH, was reported verbatim in the newspapers. Her temporary employment by HGH was a triumph. Wane had substantial experience in Launceston’s typhoid crisis throughout 1885 and 1886 and regarded the nurses working under her management as assets worth protecting. It seems likely that selection of this skilled and humane administrator facilitated a fresh start for nurses at HGH at a pivotal juncture, and for the hospital generally, just as the typhoid epidemic surged in Hobart. In the social volcano that was HGH, a sense of calm and harmony was reached so quickly that it contrasted sharply with the disputes and disharmony of previous years.

COLLABORATION AND CRITICISM DURING THE EPIDEMIC

Acting Lady Superintendent Wane immediately began building collaborative relationships at HGH; yet the scrutiny of the nursing continued unabated, courtesy of the Crowther family. In April 1887, Dr. Bingham Crowther, Edward’s son, used a public lecture about typhoid to repeat allegations that the nursing at HGH was inferior. He then reiterated those allegations in a letter to the head of Tasmania’s government. The complaints were flimsy: that nurses did not change a patient’s bed linen for 10 days even though it was soiled with excrement, that the nurses gave preferential treatment to patients of higher class and those who paid for their care, and that the nourishments nurses prepared were unfit to consume.82 Bingham Crowther claimed that he had witnesses to prove that the allegations were true. His communication to the Tasmanian government forced yet another investigation conducted by members of Parliament. This inquiry was held in May 1887 at the peak of the epidemic. It necessitated two of the nurses and Acting Lady Superintendent Wane to give testimony about the nursing care at a time
when the hospital was strained with typhoid cases. Ten patients gave their impressions of care. Caroline Budd experienced “every kindness night and day,” as did P. F. Macfarlane, who was a typhoid patient for 5 weeks. Eliza Carrier had no complaints, and Eva Watts said that “nothing could be greater than the cleanliness of the hospital.” John Langdon, 4 weeks in the hospital, was thoroughly satisfied with his treatment, while Thomas Newton and Thomas McKinley Willison agreed on the “excellence of the arrangements in the hospital.”

Bingham Crowther’s witnesses were unconvincing, however, having been coached in what to say. The investigation concluded that his allegations were baseless.

**SERVICE IN THE FACE OF RISK**

At the end of May 1887, after just 3 months at the helm, Wane’s acting term concluded when Harriet Munro from Sydney was appointed the lady superintendent. In one of her last reports to HGH’s BoM, Wane commended, “the zeal and unanimity displayed by the nursing staff in carrying out their duties.” The crisis in personnel and their management seemed to be resolved, but the typhoid crisis was far from over and the terrible effects of the epidemic on the nurses’ health became apparent. Nurses Victoria and Margaret Gourlay, siblings from Melbourne, were both unwell. They resigned and returned home to recuperate. Another nurse resigned “owing to ill health,” while yet two more nurses contracted typhoid. In early June 1887, and despite Tasmania’s cooler winter weather, the number of typhoid cases surged again. Several of HGH’s nurses became seriously ill. The urgency to replace the sick staff was so great that nurses were recruited from mainland Australia at a salary of 2.5 guineas. Because HGH was a public institution, the lady superintendent of the trained nurses’ home in Melbourne, who supplied the nurses, reduced the fee to 2 guineas per week. In July, more of the staff fell ill. Four of HGH’s nurses were declared as having typhoid, while 10 others had “ailments.” Two more nurses were engaged hastily from mainland Australia at a salary of 1 guinea per week. At least one came from the Victoria Trained Nurses
Association Home in Melbourne, while another nurse was supplied from Sydney. In a deviation from convention, her traveling expenses were paid for by HGH.89

The Tasmanian government had to absorb these extra costs. It is not known how much money the relief nurses earned or how much was paid to the nurses’ home superintendent. Still, the salaries of these emergency staff were more than what HGH nurses usually received. In late 1887, it emerged that nurses’ pay at HGH throughout this period varied enormously. One nurse had worked primarily in the fever wards for 6 years, at some risk to her health it has to be said. Her salary, static for these 6 years at £45 per annum, was raised to £50 after her circumstances became public knowledge.90

**ACKNOWLEDGING NURSES’ SERVICE IN THE EPIDEMIC**

Under these conditions, and in the face of so much publicly aired critique, it is not surprising that nurses at HGH were held in high esteem by many among the Tasmanian public. During 1887, at the same time as the supporters of Dr. Crowther voiced their ire toward Dr. Smart and his Scotch Sisters, former patients and families of former patients extolled the nurses’ selflessness and their exceptional efforts in letters and notices placed in *The Mercury* newspaper.91 What they had to say marked a stark contrast to the severe criticism of nursing at HGH. “A Late Female Patient,” for instance, wrote:

> The old nurses were too big for their boots…both the nurses and wardmaids were quite indifferent as to those who would be over them, as they are all too sick of the petty squabbles that have been going on to trouble their heads about it. They went on with their duty the same as ever….Sister Rathie always has a clear head and never forgets that she is a lady, as well as a head nurse, so that all the patients love her, and also respect her. I, as a late female patient of five months standing, can say the greatest kindness I received was from the two Scotch [S]isters and the two youngest nurses, whose example ought to be a little copied by the oldest staff nurses.92
Similarly, Henry Coulson, a licensed publican of the Angel Inn hotel in Hobart, wrote to The Mercury after hearing a number of “very unkind and illiberal remarks passed upon the hospital, its doctors, and its nurses.” He went on to say:

Of the lady attendants, I cannot find words strong enough in the English language to express my gratitude I feel for the unremitting kindness and attention towards myself and others during my long illness and although it is invidious to particularise, I must name Sister Lucas and Nurse Forrester as the saviours of my life, for had it not have been for their sisterly kindness and care, I feel confident that I should not have been now to express my heartfelt thanks for my deliverance, through the agency of the doctors and nursing staff of the General Hospital, from that terrible scourge—typhoid fever—of which so many of our fellow colonists have become victims.93

“A Late Female Patient” and other correspondents highlighted a significant point. Although inquiries and endless disputes continued in 1887 within the BoM, nurses at the bedside carried on the skilled care for the patients, washing, feeding, administering stimulants, applying compresses, and occasionally restraining patients for their own protection. This work continued during the epidemic, as the reputation of the hospital was tarnished, and as individuals were criticized without recourse.

In early May 1887, Mr. Willison, an ex-typhoid patient, suggested an honorarium for the hospital’s nurses, but as officers of a government institution, nurses were not permitted to accept rewards or gifts.94 Dr. Smart recommended that “a token of merit,” such as a silver medal suitably inscribed, would be a fitting gesture to commemorate “alike the jubilee year of Queen Victoria and the esteem of their fellow citizens.”95 Others, however, argued that the nurses needed a holiday to “recruit their health” and that any money gathered should pay for nurses to replace them.96 Hobart’s The Mercury newspaper actively supported Smart’s idea. An editorial claimed, “The band of sisters in the hospital
have worked in unity and in faith, with an earnestness and sense of duty, knowing no halt or falter.”97

A subscription fund established to pay for the medals was a public one, but, in practice, the idea originated at HGH, specifically via Dr. Parkinson, the house surgeon, and Dr. Smart, sparking yet more criticism and claims of nepotism. Smart believed that the hospital’s “own staff who bore the heat and burden of the day from January last” were worthy recipients. Another honorary surgeon and member of the BoM felt that others should receive medals. He argued in favor of the nurses who had traveled from Melbourne and Sydney to assist in the epidemic at their own peril and the wardmaids and cleaners who worked well outside of what was expected of them.98 Next, a correspondent to the newspaper appealed for the hospital’s porter to receive one.99 With the £128.15.0 pledged by the Tasmanian public, Mr. W. P. Golding, a jeweler of Liverpool Street, was commissioned to craft the 22 medals. These decorations were placed on display in a chemist’s shop. Their awarding was postponed until the end of August because at least seven of the nurses remained ill from typhoid and the rest were still recuperating.100

By the end of September 1887, HGH had treated 260 inpatient cases of typhoid. Thirty-one (11.9%) of them died. In October, just 2 months after receiving her medal, nurse Ella Gertrude White died from the effects of typhoid. She was a “young, faithful, and most promising nurse.” Her family surely worried that two of her siblings, who also were nurses at HGH, would become ill.101 The hospital’s BoM finally acknowledged the toll of the epidemic on the nurses’ health. With most of them bearing “a jaded appearance and impaired physique,” the BoM reported to the government that:

Considerable anxiety is felt with regard to the impaired health of the nursing staff generally. Typhoid still lingers in the wards, and a fresh outbreak early in the ensuing year is much to be dreaded, moreover a marked increase of diphtheria has taken place, and [with] scarlet fever…added to the list of infectious diseases, a heavy strain on the nurses therefore continues, and several of them have suffered in health in consequence.102
To help the nurses regain their health, the BoM permitted two nurses at a time to have leaves of absences in the country. After some debate, the Tasmanian government eventually agreed to cover the cost of this convalescence.

CONFLICT PERSISTS

Eight weeks after the medal-awarding ceremony, Edward Crowther succeeded in forcing another parliamentary inquiry into the management of HGH, with himself as the chair of the “Report of Inquiry Into Mrs. Wilson’s Claim for a Testimonial.” The Mercury insisted that the inquiry was nothing less than “a private vendetta” and a gross waste of money. Nonetheless, Crowther reinvestigated every dispute at HGH, dating back to the arrival of the Scotch Sisters in 1885. He pursued the suspension, dismissal, and reinstatement of Sister Turnbull, Sister Milne’s terse communications with Lady Superintendent Wilson, and the chain of events that led to Wilson’s dismissal. Throughout, Crowther successfully dredged up enmities that had pervaded HGH’s staff relations. With evidence from 23 witnesses, including nurses, the inquiry placed on the public record the underlying prejudices, challenging personality traits, personal agendas, and simple misunderstandings that had combined to produce disharmony and conflict at HGH in the 2 years leading up to the typhoid epidemic. Wilson submitted, for example, that the Scottish nurses should never have been recruited because they “were not ladies at all…only common women…lowering the tone” of the hospital. A member of the BoM argued that “the real secret of the trouble” was the favoritism shown to the Edinburgh nurses and Smart’s encouragement of their “rebellious spirit.” Another blamed Wilson’s “coercion practiced on the nurses from Edinburgh which caused all the trouble.”

The inquiry unearthed the salient fact that there had been little teaching of probationers. It confirmed that Wilson was passively resistant to this object and had impeded the Scotch Sisters’ capacity to instruct the probationers for almost 2 years. The Scotch Sisters could not teach when on night duty, and after Wilson left, the extent of the typhoid epidemic made teaching impossible. Remarkably, despite all of the turmoil
in personnel, and the deficit in teaching probationers, one witness told the inquiry, “The nursing went on as well as ever. The service was not affected.”\textsuperscript{107} Julia Ayres, the English nurse disengaged in October 1885, echoed this assessment. She told the inquiry, “I think the Scotch Sisters had some little troubles, but it did not interfere with the harmonious working of the Hospital.”\textsuperscript{108} This parliamentary inquiry concluded in November 1887. By that time, in Tasmania, HGH seemed to be operating effectively. During 1887, 1,000 cases of typhoid were reported to Tasmania’s Board of Public Health. Of these, 112 (11.2\%) died.\textsuperscript{109} A third of those fatalities occurred at HGH, giving an indication of the workload experienced by its nurses. By the end of 1887, criticism of this government institution had waned and public concern about typhoid gave way to another looming health crisis, that of smallpox.

CONCLUSION

The awarding of medals to nurses for meritorious services demonstrates the Tasmanian public’s support for the nurses who cared for patients affected by the 1887 typhoid epidemic in Hobart. Without doubt, the reported collaboration between the nurses and the broader hospital staff during the epidemic marked a watershed. Nursing during the epidemic was indeed a triumph, but that triumph was not a product of the epidemic itself, nor did it result from cooperation among all practitioners. Rather, it was a coalescence of several factors.

First, the antipathy that exemplified interactions between Lady Superintendent Wilson and the Scotch Sisters dissipated with Wilson’s departure in February 1887. The animosity within the BoM dissipated with Crowther’s departure; although he was able to criticize HGH in Parliament, he was not able to interfere in the day-to-day management of the institution. This dual change in senior personnel at HGH made it possible to conduct the care of patients without Crowther’s previously unrelenting internal critique, and without Wilson’s disobliging behavior. Second, it is likely that the new nursing regulations announced in June 1885 made some difference. Their implementation was planned just after the Scotch Sisters arrived; however, even by August 1886, they
had not been introduced because of intransigence. It seems likely that they were operational by early 1887. Under these new arrangements, HGH had a degree of certainty about its workforce as the epidemic surged. For the first time in its history, probationers could not leave on a whim and expect to obtain a testimonial of their skills written by a doctor associated with HGH. In complete contrast to past practice, probationers had contracts based on a fixed term. They had to sit for an examination and earn a certificate. These rules guaranteed staffing levels, at least of the apprenticed nurses. The rules enabled roles and responsibilities to be defined more clearly. Senior nurses were employed with the expectation that they had to teach probationers; probationers were expected to learn and complete the term of training. These factors, independent of any camaraderie that may have developed during the typhoid emergency, helped to address the long-standing crisis in the management of nursing at HGH.

Third, and perhaps most important, the appointment of an emergency administrator to lead the nursing staff was a critical factor in arresting the ill will among the nursing staff. After years of disunity and a crisis of confidence in HGH’s management, Acting Lady Superintendent Wane provided effective leadership in the difficult, early phase of the 1887 epidemic. Interestingly, hospital reports during her short appointment do not feature issues about the nursing department other than the effect of the epidemic on the nurses’ health. Wane was a fine administrator who lent experience and maturity in overcoming HGH’s dual crises of typhoid and dysfunctional relationships. Wane’s publicly declared respect for nurses may have been the catalyst that enabled a spirit of collaboration to emerge at HGH after so much hostility had prevailed. It seems likely that the nurses’ confidence in her ability to steer HGH enabled them to work beyond what was expected of them. It is possible to speculate that, had Wilson remained in her position as the lady superintendent, the exigencies of the typhoid epidemic may have trumped the prevailing disharmony, but this seems unlikely given the depth of animosities.

When seen within the broader context, right up to the onset of the 1887 epidemic, nursing management at HGH was in crisis for 2 years, without any sense of collaboration whatsoever. These long-standing
professional tensions were unsustainable. Something, or at least someone, had to give. The Scotch Sisters were more change agents than they were “rebellious spirits” in the “social volcano” that was the HGH. But their challenge to the existing, undefined arrangements at HGH created management uncertainty. Because their sponsor, Dr. Smart, was a fellow Scot, and because the nurses from Edinburgh had been expressly selected by Smart’s brother, it is not surprising that he actively supported their path at HGH. It is also possible to see this from Lady Superintendent Wilson’s perspective, that HGH was a partisan in favoring Scotch nurses over English nurses. What is hard to fathom is Dr. Crowther and his allies’ mordant criticism of nursing at HGH. After all, concerns about its nursing and the teaching of probationers had persisted since the 1870s, during which Crowther was a member of the BoM. The fact remains that the BoM had proved unable or unwilling to implement a basic structure for the training for nurses, at least until Smart recruited the Scotch Sisters.

Just as the success in nursing the typhoid cases was ultimately a coalescence of several factors, the hostility that reigned at HGH before the epidemic also arose through a coalescence of contested issues, including how to manage a hospital in the face of staff shortages and ideas about training nurses. At the heart of HGH’s troubles were professional and personal jealousies between nurses from different backgrounds and with different expectations. Power relationships in public office were also on show, with the contest between two forceful and forthright medical practitioners: Drs. Smart and Crowther. In light of these toxic relationships, the project of commissioning and awarding of medals for meritorious services in nursing was a strategy driven by Smart to muster support for his management of HGH.

Last, this account of a 19th-century hospital in an infectious disease crisis offers a sobering reminder of the risks that work posed to nurses’ lives in this pre-antibiotic era. Four of LGH’s staff died as a result of typhoid in that city during 1885 and 1886. One of HGH’s nurses died as a result of the 1887 epidemic. The difference in staff death numbers between HGH and LGH may have resulted from a more virulent strain in Launceston or, perhaps, because HGH’s higher staff numbers, derided as extravagant, were actually protective to the staff. Even so,
more than 30 of HGH’s nurses were adversely affected in health during the typhoid epidemic, necessitating substantial convalescence and, possibly, resulting in long-term sequelae. Sarah Wane, the emergency acting lady superintendent, was one of those whose health failed. She died in 1890, just 34 years of age. Wane was not a recipient of the typhoid medal.

NOTES

1. “Hospital Treatment: A Patient’s Perspective,” The Mercury, May 12, 1887, 2.
3. “Presentation of Medals to the Hospital Nurses,” The Mercury, August 31, 1887, 3.
4. Ibid. The Maltese cross has four arrowheads meeting at the points, with eight angles. See http://orderofmalta.org.au/about-the-order-of-malta/prayer-of-the-order-eight-pointed-cross. Lady Hamilton knew most of the nurses. Reportedly, she took those who were convalescent to Government House where she nursed them to recovery.
5. Ibid.
6. Ibid.
10. Kelly, A History to the Background of Nursing 28, 100.
14. “Typhoid or Ignorance?” *The Launceston Examiner*, March 6, 1886, 1; *The Mercury*, March 9, 1887, 4. Holden first published “Plain Directions for Nursing Typhoid” in 1883 in the *Australian Women’s Magazine*, under the pen name Australienne. In 1884, she added more material for a pamphlet titled “What Typhoid Is and How to Nurse It.” Holden was a prolific author, also publishing *Woman’s Ignorance and the World’s Need: A Plea for Physiology* (Sydney: George Robertson, 1883) and *Plain Words to Mothers and Temperance Reformers on Food and Health* (1883). She gave papers entitled “Trained Nursing” and “The Root of Hospital Reform” at the Victorian Social Science Congress in 1882.


16. “Typhoid or Ignorance?”

17. Ibid.


20. Ibid.

21. “Hospital Management: Resumed Enquiry[sic],” *The Mercury*, May 31, 1887, 4. A drawsheet was a smaller piece of sheeting placed across the bed at its middle. Sometimes combined with a rubber underlay, the drawsheet protected the larger bed sheeting from soiling.

22. Ibid.


25. Ibid.


35. “Letters to the Editor: Typhoid Cases in the Hospital,” The Mercury, April 5, 1887, 2.
37. “Editorial,” The Launceston Examiner, April 17, 1885, 2; April 8, 1885, 2.
38. “Letters to the Editor: The Hospital Nurses,” The Mercury, June 17, 1887, 4.
40. Ibid.
41. “Coroner’s Inquest,” 3.
42. “Hospital Board,” The Mercury, June 11, 1887, 1.
43. “Hospital Board,” The Mercury, April 16, 1887, 1.
46. “Hospital Board,” The Mercury, October 9, 1880, 2. Head nurse Madame Gleichen was reinstated by the BoM. The lady superintendent resigned some 6 months later, in 1881, and the next one resigned after 2 years.
47. “Hospital Board,” The Mercury, December 15, 1883, 2.
50. “Hospital Board,” The Mercury, June 29, 1885, 4.
51. “Hospital Board,” The Mercury, August 18, 1885, 3.
52. “Hospital Board,” The Mercury, September 13, 1884, 3.
54. “Hospital Board,” The Mercury, March 14, 1885, 3.


58. *The Mercury*, November 17, 1885, 3. It is not clear who identified Miss Ayres as the employee for release.


60. Ibid., 22. The Scotch Sisters had been engaged on the understanding that they would not serve any night duty.

61. “Hospital Board,” *The Daily Telegraph*, September 17, 1886, 3. In August 1886, Sister Milne accepted the position of lady superintendent at Launceston, after being released from her contract with HGH. Her position at HGH had been complicated by the fact that she brought with her to Australia an adopted niece, Elizabeth Hutchinson Milne. She was 8 years old and an orphan. See “Report of Inquiry Into Mrs. Wilson’s Claim for a Testimonial,” 4.

62. “Report of Inquiry Into Mrs. Wilson’s Claim for a Testimonial,” 10. One such question put to Miss Margaret Turnbull was what should a nurse do if a man in the bush was ordered poisonous medicines by a doctor.

63. “Hospital Meeting,” 2. Mrs. Wilson did not tell the BoM that she intended to dismiss Sister Turnbull.

64. Edward Lodewyk Crowther was born in Hobart in 1843. Tasmania had no medical school. Crowther began medicine as an apprentice to his surgeon father, after which he took formal education at Guy’s, Moorfields, and Birmingham Hospitals, and study at Edinburgh and Aberdeen Universities. Crowther was a member of Tasmania’s Parliament, in the House of Assembly (MHA). See http://adb.anu.edu.au/biography/crowther-edward-lodewyk-3347.


66. Ibid.

67. These details were reiterated in a Select Committee of Inquiry held the next year in 1887, which produced the “Report of Inquiry Into Mrs. Wilson’s Claim for a Testimonial.” The initial inquiry in 1886 took more than 530 foolscap pages of evidence from 32 witnesses who offered partisan and hearsay evidence.


69. Ibid., 16.
71. “Hospital Board,” The Mercury, January 19, 1887, 2.
74. The nurses placed their view on the public record in November 1887, at the Select Committee of Inquiry.
76. “Launceston General Hospital,” The Launceston Examiner, April 8, 1885, 2.
77. “Hospital Board,” The Launceston Examiner, March 19, 1886, 3.
79. “Hospital Board,” The Mercury, July 18, 1885, 3. The Launceston Hospital’s BoM decided to erect a memorial tablet to Nurse Pitman in her ward, recognizing that she “died through exposure to dangers incidental to her calling.” As a government-funded institution, the Tasmanian government’s approval was necessary for such an undertaking. The government rejected the plan on the basis that it was too costly and it would upset the nurses for them to be reminded of Miss Briant by the memorial tablet. At the same time, the government did assent to a memorial tablet for a generous benefactor, Mr. Henry Reed.
82. “Dr. B. Crowther on Typhoid Fever,” The Mercury, April 22, 1887, 3.
83. “Hospital Management.”
84. Munro was sometimes spelled Munroe. Mrs. Wane retired from nursing and initially established a boarding house for boys.
87. “Letters to the Editor: The Hospital Nurses,” The Mercury, June 17, 1887, 4.
88. As an annualized sum, this usage was more than twice that of staff nurses employed at HGH in 1887.
89. “Hospital Board,” The Mercury, July 9, 1887, 4.
90. “Hobart Hospital Board,” The Mercury, November 12, 1887, 3.
91. The following thanks were placed in *The Mercury* during 1887: Mrs. Cotton for her late daughter, February 17, 1; Miss Wall on behalf of her late brother, February 23, 1; Mrs. Dixon for her late husband, May 10, 3; Mr. J. Dunn “for their unremitting care and attention” during his dangerous and severe illness, May 30, 1; Mr. J. Turner for “their unremitting skill and attention” on his wife, June 21, 1; Mrs. Babington for herself, June 29, 2; Mrs. Meyers for herself, July 5, 3.

95. “Letters to the Editor: The Hospital Nurses and the Jubilee,” *The Mercury*, June 14, 1887, 3. The only other medal awarded to nurses in the British Colonies at that time was the Royal Red Cross, introduced by Queen Victoria on St. George’s Day, April 27, 1883. The Queen’s Jubilee was celebrated on June 21 and 22.

99. “Hospital Medals,” *The Mercury*, July 19, 1887, 3. The nurses from mainland Australia received medals, but not the ward maids or the porter.
102. Ibid.
104. “Report of Inquiry Into Mrs. Wilson’s Claim for a Testimonial,” 2. In December 1883, when Mrs. Wilson was selected to be lady superintendent, the BoM endorsed her testimonials. She had taken on nursing after the death of her husband, who was in a senior position in government service in Ireland.
105. Ibid., 14.
106. Ibid., 24.
107. Ibid.
108. Ibid., 19. Julia Ayres was by then matron of the New Norfolk Asylum, to the northwest of Hobart. She later moved to Melbourne on the Australian mainland.