

# **Protecting Children in Foster Care during Natural Disasters: A Comparison of the United States, Aotearoa New Zealand, and Japan**

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## **Abstract**

*While all children are vulnerable in a natural disaster, children who are in foster care because of maltreatment are particularly vulnerable. In the immediate aftermath of a disaster, governments that do not specifically plan for these children may be unable to account for their welfare or location, and foster parents may not have access to government resources. This paper provides a comparative analysis of international law and policy approaches in the United States, Aotearoa New Zealand, and Japan as a means of improving foster children's safety and welfare after a natural disaster. The aim of this article is to draw attention to the gap in comparative scholarly research in the area of disaster planning for children in foster care and to propose possible directions for future research.*

**Keywords:** disaster planning, foster care, Convention on the Rights of the Child, Convention on Individuals with Disabilities, Sendai Framework for Disaster Risk Reduction

## **Introduction**

The emotional, psychological, and economic impact of natural disasters on children and their physical environments has received substantially more study in the global community since events like Hurricane Katrina in the United States in 2005, the Christchurch earthquake in Aotearoa New Zealand in 2011, and the Tohoku earthquake and tsunami in Japan in 2011 (Fergusson, Horwood, Boden, & Mulder, 2014; Masten, 2014; Mutch & Gawith, 2014; Osofsky, Osofsky, & Harris, 2007; Usami et al., 2012).<sup>1</sup> This concern is even more pressing as the world prepares to enter a post-COVID-19 world and faces the unique challenges pandemics pose, especially to vulnerable children (Lippi & Plebani, 2020). Exposure to a natural disaster or pandemic and the consequent disruption to the physical, built, bureaucratic, and commercial environments may exacerbate pre-existing risk and deplete children's acquired internal and external resources (Culver, Rochat & Cookson, 2017). While children from intact and stable families may suffer immediate and long-term effects from disasters, the security of their family system and resources support the children's resilience, epigenetics, and capacity to manage loss and trauma, which often mitigates poor outcomes over time (Bonanno, Galea, Bucciarelli, & Vlahov, 2007; La Greca, Lai, Joormann, Auslander, & Short, 2013; McDermott, Cobham, Berry, & Stallman, 2010). These mitigating factors are often absent for children with accumulated histories of trauma within their familial environment, such as those in foster care, leaving them at acute risk (Bamba, 2010; Ungar, 2004).

Foster care placement entails a temporary transfer of a child's physical residence by a government entity to another caregiver, while legal custody (authority and power) remains with the state. While some include placement settings such as group homes, residential care facilities, emergency shelters, and supervised independent living in foster care, in this article, foster care is defined as a "temporary service provided by States for children who cannot live with their families. Children in foster care may live with relatives or with unrelated foster parents" (Child Welfare Information Gateway, 2016, para 1). In these circumstances, the state retains supervisory and decision-making authority for the mental health, academic, and medical treatment of the child while in placement. Unlike a completed adoption, in which the rights of biological parents are permanently terminated and legal and physical authority vested with adoptive parents, foster parents are dependent on the availability of the state agency and the courts for authority to act on behalf of a child.

Although the legal standards for child removal vary across countries, most have a dedicated judicial or administrative processes for removal of children from their families and placement with foster families (Gilbert et al., 2012; Myers, 2008; O'Donnell, Scott, & Stanley, 2008; Suzuki & Tomoda, 2015). In practice, this

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<sup>1</sup> In this article we do not address the impact of terrorism or terrorist acts in comparison with natural disasters, because the variables related to natural disasters and outcomes for foster care children, as well as policies, may be different. Research related specifically to the impact of terrorism on children is ongoing and robust (Cohen, Chazan, Lerner, & Maimon, 2010).

means that there is often significant agency oversight and judicial review of reunification and permanency planning before and after placement (Becker, Jordan, & Larsen, 2007; Fernandez & Barth, 2010; Omori, 2016; Tilbury & Osmond, 2006). Furthermore, foster care placement can result in dividing siblings, and a significant number of children in foster care may be placed in multiple homes throughout their years in the system (Benbenishty et al., 2015; Estin, 2010). Such complexities can make circumstances more challenging following a natural disaster.

Children in state custody or foster care are among those most vulnerable in a natural disaster. When disasters disrupt the lines of communication between foster parents and the state, foster parents may find themselves with no means to contact state agencies or courts to act *in loco parentis*. There might be perfectly legitimate reasons that government resources are placed on hold, diverted to other priorities, or simply unavailable during a natural disaster, but the status of foster care complicates an already challenging situation. There has been insufficient attention paid to the design and implementation of policies meant to address foster children's vulnerability in natural disasters despite an international context that recognizes the special vulnerability of children and state responsibility in mitigating that vulnerability.

In recent decades the international community has begun to address disaster planning for children in foster care. International organizations and networks meant to protect child rights, particularly those children with acute vulnerabilities, including disability, have emerged and there has been increased international attention paid to effective disaster planning, response and recovery. International agreements lend some guidance to government best practices for disaster planning for children in state custody: the United Nations Convention on the Rights of the Child (opened for signature 20 November 1989, 1577 UNTS 3, entered into force 2 September 1990), the United Nations Convention on the Rights of Persons with Disabilities (opened for signature 30 March 2007, 1577 UNTS 3, entered into force 3 May 2008), and the Sendai Framework for Disaster Risk Reduction, 2015-2030 (UNISDR, 2015).

This article will explore and compare current practices in the United States, Aotearoa New Zealand, and Japan for managing natural disasters and the needs of vulnerable children in foster care placement. First, we will consider the particular risks to children during and after natural disasters. Second, the article will outline the international law context that might serve as a useful foundation for securing the rights of children in state custody as a result of jeopardy and a child protection order entered by a court. The article will conclude with a discussion of the national contexts within each of the selected countries as well as possible policy reforms for protecting children and providing resources for agencies and foster parents to respond to temporary disruptions in oversight and services for these children. The aim of this article is to draw attention to the gap in comparative scholarly research in the area of disaster planning for children in foster care children and to propose possible directions for future research.

## **Risks to Children in Natural Disasters**

Following a large-scale natural disaster, children in foster care are at the greater risk of family and community disruptions and displacement because of the death or displacement of a foster parent, loss of a foster home, and financial and economic predicaments of the foster parents. If a foster parent must relocate to another state after the disaster, the child may have to be placed with another foster parent or risk homelessness. Even if the relocation is within the state, distance and damage to infrastructure like roads and public transportation could lead to missed visitation with biological parents. Loss of school stability, and the loss of primary caregivers, housing, clothes, and food, are just a few examples of many losses these children might have to experience. In the aftermath of Hurricane Katrina in 2005, for example, the state officials of Louisiana acknowledged that they were not aware of the whereabouts of all their children in foster care for many weeks and months (Daugherty & Blome, 2009). Such a situation may enhance risks of children, especially girls, being trafficked, or becoming homeless and susceptible to violence or abuse after running away from a relocation site (Davis & Miller, 2014; Gibbs, Henninger, Tueller, & Kluckman, 2018; Seager, 2014).

Children subjected to a natural disaster may face increased risk of adverse physical health outcomes from exposure to hazards such as carcinogens and radiation. Such exposure can damage DNA and increase lifetime cancer risk and related health problems (Choi, Costes, & Abergel, 2015; Committee on Environmental Health, 2003; Disaster Preparedness Advisory Council, Committee on Pediatric Emergency Medicine, 2015). In addition, children might not understand the nature of the disaster nor flee on their own, and likely have no control over where they would be evacuating. These circumstances can lead to mental health issues, such as stress, fear, anxiety, an inability to cope, and exaggerated responses that can manifest as developmental regression, withdrawal, clinginess, tantrums, enuresis, or somatic complaints (Masten & Barnes, 2018; Peek, 2008; Rath et al., 2007). Infants and young children who cannot care for themselves and require age-appropriate foods, including human milk, as well as assistance in feeding, toileting, and clothing, may be at even higher risk (Dogan-Ates, 2010; McDermott & Cobham, 2012; Tedeschi & Billick, 2017). In New Zealand and the United States, for example, research has shown that multiple placements and disruptions in foster care can further disrupt already vulnerable systems (Kelly, 2015; Samuels, 2009).

Some literature suggests that certain age, gender, and income factors may, among other mitigating factors, offer protective effects associated with better outcomes for short or long-term exposure to disaster (Heckenberg & Johnston, 2012; Standing, Parker, & Bista, 2016; Child Welfare Information Gateway, 2016; Masten & Osofsky, 2010). Findings generally suggest that, as the level of extreme adversity exposure rises or accumulates, "there is an increase in symptoms of trauma, behavior problems, mental anguish, and many other kinds of problems observed in children as well as in adults" (Masten & Osofsky, 2010, p. 1032). Researchers have consistently shown that when adult caregivers, including both biological and foster parents, function well and remain mentally and physically stable, children's symptoms and outcomes, over time, may improve (Overstreet, Salloum, Buch & West, 2011; La Greca & Prinstein, 2012).

## **Case Selection**

We selected the United States, Aotearoa New Zealand, and Japan for comparison for several reasons. First, all three countries rank above the mean by the Organization for Economic Cooperation and Development (OECD) for gross domestic product per capita with relatively high general standards of living (OECD, 2019). Second, all three share geographic vulnerabilities to a range of natural disasters and have, as discussed below, each experienced a significant natural disaster including a hurricane (United States), an earthquake (Aotearoa New Zealand), and a tsunami (Japan) within the past 10 years that has impacted its respective child welfare systems. As one authority wrote following disasters in the United States that impacted thousands of children in foster care, “Disasters can leave child welfare agencies and other service agencies scrambling to continue operations, which can be difficult to nearly impossible without ample planning and preparation” (Child Welfare Information Gateway, 2016, p. 2).

At the same time, the differences between these three cases present an interesting cross-section of responses to disaster risk planning and mitigation. These countries vary significantly in population size, from Aotearoa New Zealand (approximately 5 million) to Japan (approximately 127 million) to the United States (approximately 327 million). Due to their diverse cultures, all three of these countries have had different approaches to child welfare, including the imperatives of child welfare policy within a bicultural country with a substantial indigenous population, as is the case in Aotearoa New Zealand.

Finally, a commonality between the selected cases is that each are active participants in the relevant international multilateral agreements. First, all three nations signed the United Nations Convention on the Rights of the Child (UNCRC), although the United States has not ratified it. Similarly, all three nations signed on to the Convention on the Rights of People with Disabilities (CRPD); Aotearoa New Zealand and Japan have both ratified the CRPD while the United States has not. Lastly, while the Sendai Framework for Disaster Risk Reduction is not a legally binding instrument, all three countries have been engaged in its development and implementation within their government institutions and programs.

## **The International Context**

The international agreements cited above serve as both implicit and explicit guidance for governments that are addressing disaster relief for children in state custody. Those include the UN Convention on the Rights of the Child, the UN Convention on the Rights of Persons with Disabilities (Cantwell & Holzscheiter, 2007; Fluke et al., 2012), and the Sendai Framework for Disaster Risk Reduction, 2015-2030 (UNISDR, 2015). This section briefly reviews each of these documents in order to essentialize the core principles that might best serve as a foundation for disaster planning for children in foster care. These are summarized in Table 1, below.

### **Convention on the Rights of the Child**

The United Nations Convention on the Rights of the Child (UNCRC) was adopted in 1989 and sets forth broad, universal principles for children under international law

(Fadgen & Prescott, 2015). Generally, the UNCRC provides for such things as children's right to life, survival, and development, and obliges nation-states to have due regard for the best interests of children in all decision making that pertains to children. While the UNCRC contains no explicit language regarding disasters or emergencies, state parties to the UNCRC recognize that a child has an "inherent right to life" (Article 6(1)) and that states have an affirmative duty to ensure the "survival and development" of the child (Article 6(2)). Further, signatories have an affirmative duty to protect children in their custody (Article 19). Moreover, in recognition of the particular and unique vulnerability of children in state custody or subject to removal proceedings, the UNCRC entitles these children to the state's special protection when removed from his or her family (Article 20).

### **Convention on the Rights of Persons with Disabilities**

The Convention on the Rights of Persons with Disabilities (UNCRPD; 2006) was crafted to "promote, protect and ensure the full and equal enjoyment of all human rights and fundamental freedoms by all persons with disabilities, and to promote respect for their inherent dignity" (UNCRPD, Article 1). The UNCRPD extends these protections to individuals with a wide range of disabilities including "physical, mental, intellectual or sensory impairments." The UNCRPD obliges signatories to undertake a range of affirmative acts to further these objectives. Among these are 1) adopting all necessary laws to further the aims of the UNCRPD (Article 4(1)(a), (1)(b)), 2) promoting the training of people who work with individuals with disabilities, 3) spending "available resources" to further the objectives of the convention (Article 4(2)), and 4) consulting and actively engaging with individuals with disabilities in crafting legislative or policy responses to barriers to full participation in society (Article 4(3)). Of particular relevance is UNCRPD's Article 11, which requires nation-states to "take all necessary measures to ensure the protection and safety of persons with disabilities in situations of risk, including situations of armed conflict, humanitarian emergencies and the occurrence of natural disasters."

### **Sendai Framework for Disaster Risk Reduction, 2015-2030**

The most recent pronouncement of the international community's emphasis on disaster planning is the Sendai Framework for Disaster Risk Reduction, executed in 2015 (Cutter, 2017; de la Poterie & Baudoin, 2015). The framework was designed to guide nation-states in developing disaster response and mitigation strategies for their populations. In particular, the drafters of the Sendai Framework went to great pains to emphasize the particular impact of disasters on children and families in poverty. Reiterated in the document is the explicit appeal that children and impoverished communities be consulted in the process of formulating policies and planning. This policy includes protections that encourage and support family resiliencies for vulnerable populations (Amri, Haynes, Bird, & Ronan, 2018; Ronan et al., 2016).

**Table 1. Principles for children in state custody outlined by international Instruments**

International Instrument	Principles for Children in State Custody
United Nations Convention on the Rights of the Child (UNCRC)	<ul style="list-style-type: none"> <li>• Children have a right to life</li> <li>• States have a duty to protect children, particularly those who have been removed from their family</li> </ul>
United Nations Convention on the Rights of Persons with Disabilities (UNCRPD)	<ul style="list-style-type: none"> <li>• Requires that state parties ensure the protection and safety of persons with disabilities in situations of risk, including situations of humanitarian and natural disasters</li> </ul>
Sendai Framework for Disaster Risk Reduction	<ul style="list-style-type: none"> <li>• Children and impoverished communities should be consulted in the process of formulating policies and planning</li> <li>• Includes protections that encourage and support family resilience for disabled and vulnerable populations</li> </ul>

Read together, these instruments provide domestic policymakers with significant guidance for disaster planning for vulnerable populations within their jurisdiction, including for children in foster care. The UNCRC and UNCRPD provide a foundation of rights-based principles to ensure that vulnerable children are prioritized in state planning generally. Further, we argue these documents create significant burdens of responsibility for competent state agencies to ensure adequate planning is done for children in foster care, given their acute susceptibility to increased risk in disasters. Moreover, the Sendai Framework takes this a step further by not merely recognizing these important state responsibilities but by operationalizing them into an accessible disaster planning framework to guide policymakers in fulfilling their duty to protect. The guidance provided in the Sendai Framework also supports the call for disaster planning to involve indigenous populations, such as in the case of Aotearoa New Zealand, and the imperative of not only consulting this population but fully integrating them into the policy development and implementation process. Such inclusion ensures proper alignment between policy goals and outcomes as well as better implementation.

## Discussion

### United States

When Hurricane Katrina hit the United States Gulf Coast as a category 3 or above hurricane in August 2005, children were already vulnerable from poverty and resource disparities such as the ability to seek protection or to move away from the storm (Godwin, Foster, & Keefe, 2013; Zoraster, 2010). More than 5,000 children were subsequently reported as missing after the storm and that data may be an undercount (Davis & Miller, 2014). For children in foster care placements, the risk factors related to dislocation and the immediate and sustained lack of government resources and oversight were even greater (Davis & Miller, 2014). These disparities posed even more risk to children in foster care who had no adult or family system that was able to respond quickly and effectively to the disaster

with stable housing and medical or mental health care, for example (Davis & Miller, 2014; Godwin, Foster, & Keefe, 2013). The disparities in foster care and risks for children with disabilities may be even more serious. The vast majority of foster children come from disadvantaged backgrounds at the time of placement and therefore are at much greater risk for emotional and health problems. One-third of these children had some form of clinically defined disability (Buckles, 2013).

In October 2006, President Bush signed into law the Post-Katrina Emergency Management Reform Act of 2006, modifying the organizational structure of the Federal Emergency Management Agency (FEMA). Subsequently, the Kids in Disasters Well-being, Safety, and Health Act of 2007 established the National Commission on Children and Disasters in December 2007. The Commission was charged with conducting a comprehensive study to identify gaps in the nation's disaster planning, preparedness, response, and recovery for children. Their interim report, prepared in collaboration with FEMA as well as other partners and NGOs, was delivered the president and congress in October 2009, with the final report issued in October 2010 (Jackman, Beruvides, & Nestler, 2017; Lucie, 2016). In its report, the Commission recommended that the Executive Branch, Congress, and non-Federal partners reconsider laws and policies, such as the 2006 Pandemic and All-Hazards Preparedness Act, "group children into broad 'at-risk' population categories" so that their unique needs may be anticipated and disaster management agencies could place a specific and sustained focus on children in their daily and disaster response activities (National Commission on Children and Disasters, 2010, p. 21). For several decades now, millions of children in the United States are subject to child protection investigations annually and nearly half a million children each year are subject to court-ordered foster care placements (USDHHS, 2017). Following Katrina and related disasters, the Commission found that "Courts and agencies struggled to locate children and foster and biological families, provide critical services and supports, and ensure appropriate oversight of cases" (National Commission on Children and Disasters, 2010, p. 109).

In the United States, the federal government has oversight and provides funding for foster care and child protection as a share of the cost incurred by states in providing foster care, adoption assistance, or kinship guardianship assistance to eligible children. The "federal share of that cost was estimated at \$7.5 billion in FY2016 and, as of the July 2017 mid-session budget review, was expected to be \$7.8 billion in FY2017" (Stoltzfus, 2017, n.p.). However, this does not mean that the federal government has current or robust data nor the on-the-ground/real-time resources to protect children in foster care in natural disasters. All 50 states have a unique role in the development and implementation of their foster care systems and can deviate (within certain ranges) to meet state needs as determined by policy makers. Therefore, what Smith, Sabbag, and Rohmer (2018) wisely suggested applies here: states must build an inter- and intra-state capacity to respond *in loco parentis* on behalf of its foster care children pre-emptively and collaboratively with other government and nongovernment agencies to create a more sustainable environment for these children. This makes knowledge of likely disasters, coupled with commitment to what is called an all-hazards plan, more essential. Yet such coordinated action is rendered all the more complex when

children might be moved between states, and cultural, language, racial, and poverty dynamics can impair pre-emptive and effective policy design and delivery.

From the federal legislation related to disasters, The Child and Family Services Improvement Act of 2006 (P.L. 109-288) mandates that state child-welfare agencies develop disaster plans that: a) identify, locate, and continue services for children under state care or supervision adversely affected by disasters; b) respond to new child welfare cases in areas adversely affected by a disaster, and provide services; c) remain in communication with caseworkers and essential child-welfare personnel who are also displaced; and d) preserve essential program records (Conway & Hutson, 2007). This act protects the mental and physical safety of children and families and encourages states to pre-plan reactions, policies, and resources (Melton & Sianko, 2010).

In response, state governments have initiated such plans as an effort toward the safety and protection of this particularly vulnerable population (Child Welfare Information Gateway, 2016; Forum on Medical and Public Health Preparedness for Catastrophic Events, 2014), proactively planning for the welfare of children in state custody in the event of a disaster. For example, in 2009 North Dakota established a system to gather information on foster families and foster-to-adopt families in the event they become unexpectedly displaced. The plan requires all foster parents and foster-to-adopt parents to “outline disaster evacuation plans” that consider primary and secondary planning, with a copy of each family’s plan maintained at the regional office and a central database at the North Dakota State Capitol (North Dakota Child and Family Services, 2018). In another example, Nebraska requires foster parents to develop and display a family emergency plan. The plan must include where the foster family and children in foster care would go in an evacuation; a list of personal telephone numbers and contact information; a list of critical items to take when evacuating with children, including their identification and medical necessities; and emergency contact for the Nebraska Department of Health and Human Services (Nebraska Department of Health and Human Services, 2019).

The policies that have evolved in some states seem to follow, with good intentions, the suggestions proffered by Davis and Miller (2014) for standardized planning: the use of cloud storage to maintain critical records about children and family’s data; maintaining communication and contacts between families and children; designing service contracts that could be activated by various social service agencies when children in foster care are caught in disasters; and following recommendations developed by the Child Welfare League of America as a means for relocating children without losing track of them.

Children in foster care are already subject to profound racial and economic disparities, which creates a host of social, familial, medical, academic, and legal problems throughout their lives. Given these additional challenges, the need for comprehensive policies to support foster children in the face of natural disasters is particularly acute (Wildeman & Waldfogel, 2014). It is the duty of federal and state governments to generate and implement planning that is concrete, feasible, and

sustainable for children and youth. Given the complexity of the overlapping legal systems in the United States, it is worth considering how foster children are managed in smaller nation-states that face similar natural disaster risk profile and complex social context.

### **Aotearoa New Zealand**

Aotearoa New Zealand is a small island nation, located in the southern Pacific Ocean consisting of two main islands known locally as North and South Islands. The country has a population of 4.8 million people (Stats NZ 2020). The country is vulnerable to several disaster risks, including flooding, earthquakes, and tsunamis. The most recent major national disaster struck in 2011 when a 6.3 magnitude earthquake occurred near the South Island city of Christchurch. The earthquake resulted in several buildings collapsing and 185 deaths. Government responsibility for disaster planning and response rests with several agencies, including the Ministry of Civil Defence and Emergency Management, the Ministry of Education, and the Ministry of Health, which, among other groups and agencies, have policies and strategies related to disaster response.

Aotearoa New Zealand's foster care policy context is one marked by an often-contentious relationship between the state and Māori, Aotearoa New Zealand's indigenous population. In 1988, a monumental report into inadequacies within the child protection space formed part of a larger government report called Puaote-Ata-tu (Day Break) Ministerial Advisory Committee on a Māori Perspective for the Department of Social Welfare (Smith, Moore, Cumming, & Boulton, 2019). The report noted the centrality of the family (called *whānau* in te reo Māori) to successful socio-economic outcomes for Māori. The report and recommendations emphasized Aotearoa New Zealand's prevailing monocultural (European) system that served as a barrier by preventing Māori uptake of state social services. The findings, which were slow to be fully implemented for reasons beyond the scope of this article, eventually resulted in the Whānau Ora policy in 2010. Following from the insights of the Day Break report, this policy emphasized the centrality of the whānau in state family policy considerations. The policy promoted an integrated service paradigm and sought better coordination across government agencies to preserve the family as the primary social unit of society—both Māori and non-Māori alike.

Responsibility for children in state custody is demarcated in the Vulnerable Children Act 2014. The Act vested responsibility in five agencies: the Ministries of Health, Education, Justice, and Social Development, the New Zealand Police, and a special, child-focused agency created in 2017 called Oranga Tamariki (Ministry for Children), which has primary responsibility for children in state custody. Measurement and planning are focused on mitigating risk to children in care due to human factors and not environmental risks. An important recent policy initiative undertaken by Jacinda Ardern's Labour-led coalition government would require communities to develop disaster risk response plans as part of the country's national climate-change strategy and carbon emission reduction scheme. While this proposal is still in the embryonic phase, this marks the beginning of a critical

discussion around planning and community preparedness of which at-risk children should be made a part.

While these policy innovations have been heralded as far more reflective of Māori policy goals and worldview, they have had mixed results for children in foster care. Overall numbers of children within the jurisdiction of Oranga Tamariki has continued to rise from just 5,020 in 2011 to 6,169 at the end of 2019 (Oranga Tamariki, 2020). This figure is the highest since 2008 and the dislocation caused by the global financial crisis. The total number of these at-risk children who eventually became subject to a placement order in 2019 stood at 1,300 (Oranga Tamariki, 2020). The share of children in placement remains overwhelmingly ethnically Māori and Pasifika at 71 percent of all entries to care (Oranga Tamariki, 2020). Moreover, children referred to state care tend to be male (52 percent) (Oranga Tamariki, 2020). The prevalence of disability amongst Māori male children is 19 percent—considerably higher than other ethnic groups (Oranga Tamariki Evidence Centre, 2019). Given the large share of Māori male children with some form of disability amongst this population, the UNCRPD becomes a relevant concern for proper disaster planning.

The manner in which some of these children have been removed (referred to locally as “up-lift”) has also called into question the agencies’ sometimes aggressive tactics (Nielson, 2020). At the same time, there has been an increase in family-based placements and fewer children overall placed in non-family or residential settings (Oranga Tamariki, 2020). Therefore, in the months leading up to the disruption presented by COVID-19 in early 2020, children placed with a family had been experiencing greater stability. Pockets of instability persist, however; even without considering the deleterious impacts of the 2011 Christchurch earthquake, some estimates suggest that as many as 40 percent of children placed into foster care around Auckland, the nation’s largest city, are moved from home to home multiple times (Keogh, 2018). This issue spiked following the Christchurch earthquake as scores of homes around the city were deemed uninhabitable due to a condition known as liquefaction, which led to soil instability. In short, the national stock of viable foster care homes was far lower than necessary to absorb the increased demand created by this natural disaster, which, while certainly unexpected, was within the range of possible, if not probable natural events for which Aotearoa New Zealand planners would have envisaged.

While the long-term impacts of the Christchurch earthquake remain under study, preliminary research suggests that those with higher baselines of vulnerability to conditions such as anxiety and depression as well as “increased aftershock anxiety and family tension” were at increased risk for longer post-event recovery periods and more acute post-trauma stress (Jones et al., 2019, p. 213). Yet, researchers have also found that investing in “family cohesion or social support” post-crisis can offset the long-term costs of these events (Jones et al., 2019, p. 213). Moreover, New Zealand’s recently enacted National Care Standards (Oranga Tamariki–Ministry for Children, 2019) do not explicitly require disaster planning for children in state care. These findings highlight the importance of ensuring a sound and supportive policy context for planning for vulnerable children in disasters.

In sum, with its small size, unique bicultural social context and particular vulnerabilities to certain natural disasters (earthquakes, cyclones) in close proximity to its main living centers (Auckland, Wellington and Christchurch), as well as the large share of children with disabilities likely implicated within the state care system, Aotearoa New Zealand poses a challenging context for foster care emergency planning. However, as the relatively recent Christchurch earthquake reveals, culturally centered planning for such emergencies is an important aspect of Aotearoa New Zealand's foster care policy context. The particular impacts of this lack of capacity and poor disaster planning has yet to be adequately explored but given the likelihood of increasingly frequent and severe environmental events due to climate change, an emphasis on appropriate disaster planning that is consistent with international best practice as understood within Aotearoa New Zealand's particular bi-cultural context is necessary.

This leaves yet another possible case to consider: a small state with a large homogenous population and a highly developed child support system that faces a similar natural disaster risk profile. For this, we will next consider Japan and the aftermath of the 2011 earthquake and tsunami.

### **Japan**

Like Aotearoa New Zealand, Japan is a small island nation, but with a substantially larger population of approximately 126.8 million. Throughout the long history of the country, community or social needs have been prioritized over individual rights. The rights of children have been treated, legally and culturally, as secondary to fealty, parents, and community (Ikeda & Yabana, 2002; Shimonishi, 2005). Following the Second World War, Japan created institutions to care for orphans and children in need of protection, called "baby homes" and "children's homes," rather than integrating the children into communities through foster care or adoption (Kadonaga & Fraser, 2015). The first Child Maltreatment Prevention Act was passed in 1933. However, it had little impact in protecting children (Kadonaga & Fraser, 2015). In 1948, the Child Welfare Act was passed, with the creation of offices such as Child Guidance Centers (also known more recently as Child Consultation Centers), welfare offices, and public health centers. While there were some forms of a foster care system in Japan for many centuries, the modern foster care program started in 1948 with the passage of the Child Welfare Act (Kumasaka & Aiba, 1968). The Child Welfare Act of 1948 has been amended more than 80 times since its passage (Kadonaga & Fraser, 2015). In 2000, the Japan Ministry of Health, Labor and Welfare enacted the Child Abuse Prevention Law.

Since 2000, however, the number of reported child maltreatment cases has significantly increased, from 17,725 in 2000 to 59,862 in 2011 (Kadonaga & Fraser, 2015). While the cause for the substantial increase is unclear, changes in family dynamics, such as mothers returning to work after the birth of a child, an increased divorce rate, having stepparents, and parental stress regarding work-life balance have been considered (Kadonaga & Fraser, 2015). A growing awareness of child maltreatment, greater ease in contacting the authorities, and changes in the understanding of child maltreatment as a social problem (i.e., not merely a private family matter) are also possible causes (Shibuya, 2007; Tanaka, 2011).

The significant increase in child maltreatment in Japan has caused challenges in placing these children after they have been removed from their caretakers. A substantial number of these children have been placed in institutional care instead of foster care and adoption. In Northern European countries, as well as the United States, Canada, and Australia, more than 70 percent of children who are in state custody are placed in foster settings, and these countries have robust adoption programs (Browne, Hamilton-Giachritsis, Johnson, & Ostergren, 2006; cited in Goldfarb, 2015). By contrast, more than 90 percent of children in state care in Japan continue to be placed in baby homes or children's homes (Ministry of Health, Labor and Welfare, 2014). Because neuroscience research indicates that institutionalized care can cause potential developmental harms, Japan's Ministry of Health, Labor and Welfare has acknowledged the need to increase the number of foster care settings for maltreated children (Goldfarb, 2015). Children with disabilities are at a higher risk of being abused and neglected (Ichise, 2010), and isolating them in institutional care, instead of keeping them in their communities, can cause additional stress on these vulnerable children.

Development of a foster care placement system with investigators and courts in Japan is a fairly recent historical development and the resiliency of this system has been tested by recent natural disasters. The March 2011 earthquake and tsunami that devastated much of the coastal area in northeastern Japan killed almost 19,000 people and left 241 children orphaned (Kotani et al., 2014). Because of the sudden and large number of children in need of care, there were not nearly enough existing foster homes to take them in. Subsequently, all but two of these children were placed with their relatives, a kinship placement—a term that was unfamiliar to many child protection service workers. Due to this phenomenon, a modification was added to the existing law to consider and expand the kinship placement system in Japan in the fall of 2011. While there are plans or strategies to increase foster homes for children who are removed from their parents' care, there is no literature or document that describes the effort to include children in disaster planning. Given the consistent, significant increase in child maltreatment cases, it appears that the Japanese government has been failing to protect children's rights to life and protection. It is important to educate, train, and empower Japanese child protection service workers who are overwhelmed by the substantial increase in reported child maltreatment, so they can provide appropriate attention to children and families in their care, regardless of their settings.

## **Conclusion**

Though countries cannot control the possibility of natural disaster or completely prevent the introduction of infectious disease, they can help vulnerable populations prepare for such disasters. Conceptualizing these disasters in conjunction with public health and medical emergencies has received critical analysis by some national governments (Defense Support of Civil Authorities, 2015; Lister, 2011). This merged concept also applies to children impacted by natural disasters, particularly those in foster care.

In the United States, for example, even with the lessons of Hurricane Katrina still fresh to many policymakers, many child welfare agencies are still dangerously

underprepared for large-scale catastrophes. Smith, Sabbag, and Rohmer (2018) pointed to a U.S. Government Accounting Office report urging the importance of state reform of disaster recovery plans and the subsequent passage of the Post-Katrina Emergency Management Reform Act of 2006. The goal, not yet fulfilled, of this act and related legislation and policy is to build on the responsibility of relevant agencies as experts at interdicting and intervening in disaster relief and to protect children during emergencies. The federal government has mandated each state to be prepared for public health emergency or the state might lose federal funding. Disaster drills have been practiced, often at a large scale, with the support of state governments. However, a majority of these efforts involve health care facilities, but not social services such as child and family departments. It is imperative for the U.S. to do everything possible to prepare to align the emergency responses of federal governments, states, international agencies, and NGOs with relatively little notice and with complex political and policy agendas and resources (Gajewski, Bell, Lein, & Angel, 2011; Sadiq, Tharp, & Graham, 2016). It would be hoped that agencies could harness their expertise to offer protection to vulnerable children and families.

In Aotearoa New Zealand, government agencies are well-positioned to take up the issue of disaster planning for children in state custody, given the government's recent proposal about climate change that would, for one thing, require communities to develop disaster risk reduction and mitigation plans. Oranga Tamariki, as the responsible agency for child welfare, should further expand its risk assessment and planning as part of its "measurement of harm" analysis for children in care. Moreover, the six core agencies responsible for children in care under the Vulnerable Children Act 2014 should adapt the Sendai Framework's call for a cross-community consultation approach that puts children at the center of disaster and emergency planning. These measures will require more cooperation among key stakeholders in developing a viable policy that will ensure the best interests of children in state custody are protected as part of the national, holistic disaster response planning initiative.

After the Great Hanshin Earthquake in Kobe in 1995, Japan developed an extensive network of Disaster Medical Action Teams that provide medical assistance to the victims and survivors of a disaster throughout the nation. The team members, however, are not trained in mental health, and the mental health response was not well coordinated during the Great East Japan Earthquakes in 2011. Japanese government agencies, at the national, prefectural, and municipal levels, must develop a more systematic response to address the mental health needs of disaster victims, as well as specific plans for children under the care of the state. These should include early identification of children's whereabouts, whether there are or will be changes in their caregiving environment, the availabilities of mental health professionals in the area, and re-establishing contact with birth parents and siblings, if appropriate. Local child guidance centers may be the agency responsible for implementing these plans, but a national policy needs to be developed to allocate resources to disaster areas to create a more sustainable environment for children in foster care following a natural disaster.

During the last few decades, efforts have been made in each of the three countries reviewed here to be better prepared for large-scale natural disasters. Unfortunately, “the increase in need for child welfare services during a disaster was not recognized by disaster professionals” (Daughtery & Blome, 2009, p. 483). Including children in decision-making processes and disaster planning has a number of benefits, such as empowering children and enhancing their resilience, building relationships with adults in the community, and promoting children’s development (Pfefferbaum, Pfefferbaum, & Van Horn, 2018). Realistically, of course, there may never be enough resources allocated to child welfare agencies for disaster planning.

Following on the key policy principles found in the UNCRC, UNRPD and Sendai Framework, particularly the special responsibility of the State to protect the health and safety of children generally and children with disabilities in particular, and to recognize the rights of children to participate in these processes, this article makes several recommendations. In order to more effectively plan for children in disaster, states must ensure that they secure reception, tracking, and care of children both before and after disasters; identify injured and unaccompanied children in disasters; provide information and other support to parents or legal guardians to expedite reunification processes; support child protective services case workers (who may be victims of the disasters themselves); use all available personnel to meet children’s needs; track children’s movement from arrival to safe discharge; and establish partnerships with related services. By embracing these international principles, states will ensure that their systems are most effective when children, including those with disabilities, are brought into the planning process.

In sum, this article suggests the need for further comparative research to identify best practices in disaster planning for this acutely vulnerable population and provides a comparative framework grounded in the international policy context as a possible way forward. Context matters in each of the cases presented above and no one solution will apply across jurisdictions. These national cases differ in terms of land and population size, as well as their unique policy contexts—the United States’ complex federal policy landscape, Aotearoa New Zealand’s policy imperatives to ensure bicultural service delivery systems, and the need to account for the intersection of state services and complex kinship networks in Japan. Yet, there are commonalities across these cases: the international policy foundation constructed from instruments such as the Convention on the Rights of the Child and Convention on the Rights of Persons with Disabilities, and functional documents such as the Sendai Framework and their affirmative responsibility for the State to support child flourishing. Perhaps the most important cross-cutting element is of course the children and families themselves, who are looking to the State to provide the security and support necessary to promote this flourishing even under the most challenging circumstances.

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## References

- Amri, A., Haynes, K., Bird, D. K., & Ronan, K. (2018). Bridging the divide between studies on disaster risk reduction education and child-centered disaster risk reduction: a critical review. *Children's Geographies*, 16(3), 239-251.  
<https://doi.org/10.1080/14733285.2017.1358448>
- Bamba, S. (2010). The experiences and perspectives of Japanese substitute caregivers and maltreated children: A cultural-developmental approach to child welfare practice. *Social Work*, 55(2), 127-137.  
<https://www.jstor.org/stable/i23719963>
- Becker, M. A., Jordan, N., & Larsen, R. (2007). Predictors of successful permanency planning and length of stay in foster care: The role of race, diagnosis and place of residence. *Children and Youth Services Review*, 29(8), 1102-1113.  
<https://doi.org/10.1016/j.childyouth.2007.04.009>
- Benbenishty, R., Davidson-Arad, B., López, M., Devaney, J., Spratt, T., Koopmans, C., ... & Hayes, D. (2015). Decision making in child protection: An international comparative study on maltreatment substantiation, risk assessment and interventions recommendations, and the role of professionals' child welfare attitudes. *Child Abuse & Neglect*, 49, 63-75.  
<https://doi.org/10.1016/j.chiabu.2015.03.015>
- Bonanno, G. A., Galea, S., Bucciarelli, A., & Vlahov, D. (2007). What predicts psychological resilience after disaster? The role of demographics, resources, and life stress. *Journal of Consulting and Clinical Psychology*, 75(5), 671-82.  
DOI: 10.1037/0022-006X.75.5.671

- Browne, K., Hamilton-Giachritsis, C., Johnson, R., Ostergren, M. (2006). Overuse of institutional care for children in Europe. *British Medical Journal*, 332(7539), 485-487. DOI:10.1136/bmj.332.7539.485
- Buckles, K. S. (2013). Adoption subsidies and placement outcomes for children in foster care. *Journal of Human Resources*, 48(3), 596-627. doi: 10.3368/jhr.48.3.596
- Cantwell, N., & Holzscheiter, A. (2007). *A commentary on the United Nations Convention on the Rights of the Child, Article 20: Children deprived of their family environment*. Leiden, Netherlands: Brill.
- Child Welfare Information Gateway (2016). *Disaster planning for child welfare agencies*. Washington, D.C.: U.S. Department of Health and Human Services, Children's Bureau.
- Choi, T. A., Costes, S. V., & Abergel, R. J. (2015). Understanding the health impacts and risks of exposure to radiation. In J. Ahn, C. Carson, M. Jensen, K. Juraku, S. Nagasaki, & S. Tanaka (Eds.), *Reflections on the Fukushima Daiichi nuclear accident* (pp. 259-281). Cham, Switzerland: Springer.
- Cohen, E., Chazan, S., Lerner, M., & Maimon, E. (2010). Posttraumatic play in young children exposed to terrorism: An empirical study. *Infant Mental Health Journal*, 31(2), 159-181. doi: 10.1002/imhj.20250
- Committee on Environmental Health (2003). Radiation disasters and children. *Pediatrics*, 111(6), 1455-1466. <https://doi.org/10.1542/peds.111.6.1455>
- Conway, T., & Hutson, R. Q. (2007). In-depth summary of the Child and Family Services Improvement Act of 2006. *Center for Law and Social Policy*.
- Culver, A., Rochat, R., & Cookson, S. T. (2017). Public health implications of complex emergencies and natural disasters. *Conflict and Health*, 11(1), 32. doi: 10.1186/s13031-017-0135-8
- Cutter, S. L. (2017). The forgotten casualties redux: Women, children, and disaster risk. *Global Environmental Change*, 42, 117-121. <https://doi.org/10.1016/j.gloenvcha.2016.12.010>
- Daughtery, L. G., & Blome, W. W. (2009). Planning to plan: A process to involve child welfare agencies in disaster preparedness planning. *Journal of Community Practice*, 17(4), 483-501. DOI:10.1080/10705420903300504
- Davis, M. A., & Miller, L. M. (2014). The impact of Hurricane Katrina on the U.S. foster-care system. *Children, Youth and Environments*, 24(1), 82-107. DOI: 10.7721/chilyoutenvi.24.1.0082

- de la Poterie, A. T., & Baudoin, M. A. (2015). From Yokohama to Sendai: Approaches to participation in international disaster risk reduction frameworks. *International Journal of Disaster Risk Science*, 6, 128-139.
- Defense Support of Civil Authorities: A Vital Resource in the Nation's Homeland Security Missions: Hearings before the Subcommittee on Emergency Preparedness, Response, and Communications of the Committee on Homeland Security, 114th Cong. (2015) (Statement of Robert J. Fenton). Retrieved from <https://www.fema.gov/media-library-data/1434230809621-ab59191da52e50a221a301e296ead661/Civil-Authorities-Testimony-6-10-15.pdf>
- Disaster Preparedness Advisory Council, Committee on Pediatric Emergency Medicine (2015). Ensuring the health of children in disasters. *Pediatrics*, 136(5), e1407-e1417. DOI: <https://doi.org/10.1542/peds.2015-3112>
- Dogan-Ates, A. (2010). Developmental differences in children's and adolescents' post-disaster reactions. *Issues in Mental Health Nursing*, 31, 470-476. DOI: [10.3109/01612840903582528](https://doi.org/10.3109/01612840903582528)
- Estin, A. L. (2010). Global child welfare: The challenges for family law. *Oklahoma Law Review*, 63, 691-722.
- Fadgen, T. P., & Prescott, D. E. (2015). Do the best interests of the child end at the Nation's shores: Immigration, state courts, and children in the United States. *Journal of the American Academy of Matrimonial Lawyer*, 28, 359-390.
- Fergusson, D. M., Horwood, L. J., Boden, J. M., & Mulder, R. T. (2014). Impact of a major disaster on the mental health of a well-studied cohort. *JAMA Psychiatry*, 71(9), 1025-1031. doi: [10.1001/jamapsychiatry.2014.652](https://doi.org/10.1001/jamapsychiatry.2014.652).
- Fernandez, E., & Barth, R. P. (2010). *How does foster care work? International evidence on outcomes*. London, UK: Jessica Kingsley Publishers.
- Fluke, J. D., Goldman, P. S., Shriberg, J., Hillis, S. D., Yun, K., Allison, S., & Light, E. (2012). Systems, strategies, and interventions for sustainable long-term care and protection of children with a history of living outside of family care. *Child Abuse & Neglect*, 36(10), 722-731. doi: [10.1016/j.chiabu.2012.09.005](https://doi.org/10.1016/j.chiabu.2012.09.005)
- Forum on Medical and Public Health Preparedness for Catastrophic Events; Board on Health Sciences Policy; Institute of Medicine (2014). *Preparedness, response, and recovery considerations for children and families: Workshop summary*. Washington, D.C.: National Academies Press. Retrieved from <https://www.ncbi.nlm.nih.gov/books/NBK174835/> doi: [10.17226/18550](https://doi.org/10.17226/18550)
- Gajewski, S., Bell, H., Lein, L., & Angel, R. J. (2011). Complexity and instability: The response of nongovernmental organizations to the recovery of Hurricane Katrina survivors in a host community. *Nonprofit and Voluntary Sector Quarterly*, 40, 389-403. <https://doi.org/10.1177/0899764010362115>

- Gibbs, D. A., Henninger, A. M., Tueller, S. J., & Kluckman, M. N. (2018). Human trafficking and the child welfare population in Florida. *Children and Youth Services Review, 88*, 1-10. <https://doi.org/10.1016/j.childyouth.2018.02.045>
- Gilbert, R., Fluke, J., O'Donnell, M., Gonzalez-Izquierdo, A., Brownell, M., Gulliver, P., ... & Sidebotham, P. (2012). Child maltreatment: Variation in trends and policies in six developed countries. *The Lancet, 379*(9817), 758-772. doi: [10.1016/S0140-6736\(11\)61087-8](https://doi.org/10.1016/S0140-6736(11)61087-8)
- Godwin, E. E., Foster, V. A., & Keefe, E. P. (2013). Hurricane Katrina families: Social class and the family in trauma recovery. *The Family Journal, 21*(1), 15-27. <https://doi.org/10.1177/1066480712458224>
- Goldfarb, K. E. (2015). Developmental logics: Brain science, child welfare, and the ethics of engagement in Japan. *Social Science & Medicine, 143*, 271-278. doi: [10.1016/j.socscimed.2014.11.036](https://doi.org/10.1016/j.socscimed.2014.11.036)
- Heckenberg, D., & Johnston, I. (2012). Climate change, gender and natural disasters: Social differences and environment-related victimization. In White, R. (Ed.). *Climate change from a criminological perspective* (pp. 149-171). New York: Springer.
- Ichise, S. (2010). The maltreatment process in children with disabilities. *Shakai Fukushi, 51*. Retrieved from [https://jwu.repo.nii.ac.jp/?action=repository\\_uri&item\\_id=1805&file\\_id=22&file\\_no=1](https://jwu.repo.nii.ac.jp/?action=repository_uri&item_id=1805&file_id=22&file_no=1)
- Ikeda, Y., & Yabana, F. (2002). A history of the child abuse prevention movement in Japan [in Japanese]. *Annual Bulletin of the Center for Clinical and Developmental Studies, 2*, 46-59.
- Jackman, A. M., Beruvides, M. G., & Nestler, G. S. (2017). *Disaster policy and its practice in the United States: A brief history and analysis*. New York: Momentum Press.
- Jones, H., Dorahy, M. J., Britt, E., Rowlands, A., Renouf, C., Carter, J. D., & Hanna, D. (2019). Predictors of posttraumatic stress symptom trajectories following the fatal 2011 Christchurch, Aotearoa New Zealand Earthquake. *Journal of Traumatic Stress, 32*(2), 206-214. <https://doi.org/10.1002/jts.22387>
- Kadonaga, T., & Fraser, M. W. (2015). Child maltreatment in Japan. *Journal of Social Work, 15*(3), 233-253. DOI: [10.1177/1468017314537424](https://doi.org/10.1177/1468017314537424)
- Kelly, W. J. (2015). *Foster parents' understanding of the foster child's perspective: Does it matter and can it be changed?* Doctoral Thesis, Victoria University of Wellington.

- Keogh, B. (2018, 10 June). Forty per cent of children in state care moved between three-plus caregivers in five years. *New Zealand Herald*. Retrieved from [https://www.nzherald.co.nz/nz/news/article.cfm?c\\_id=1&objectid=12044326](https://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=12044326)
- Kotani, H., Adachi, T., Nishikawa, M., Nakamura, Y., Hige, K., Hashimoto, K., . . . Ogimoto K. (2014). Struggling with the fourth disaster in East Japan. *The Forum of the International Association for Group Psychotherapy and Group Processes*. Retrieved from <https://www.pas-ins.com/wp-content/uploads/2014/01/final-Struggling-with-the-fourth-disaster-in-East-JapanTH2.pdf>.
- Kumasaka, Y., & Aiba, H. (1968). Foster care in Japan: Past and present. *The Milbank Memorial Fund Quarterly*, 46(2), 253-265. doi:10.2307/3349141
- La Greca, A. M., & Prinstein, M. J. (2012). Hurricanes and earthquakes. In A. M. La Greca, W. K. Silverman, E. M. Vernberg, & M. C. Roberts (Eds.), *Helping children cope with disasters and terrorism* (pp. 107-138). Washington, D.C.: American Psychological Association.
- La Greca, A. M., Lai, B. S., Joormann, J., Auslander, B. B., & Short, M. A. (2013). Children's risk and resilience following a natural disaster: Genetic vulnerability, posttraumatic stress, and depression. *Journal of Affective Disorders*, 151(3), 860-867. doi: 10.1016/j.jad.2013.07.024
- Lippi, G., & Plebani, M. (2020). The novel coronavirus (2019-nCoV) outbreak: Think the unthinkable and be prepared to face the challenge. *Diagnosis*, 7(2):79-81. doi: 10.1515/dx-2020-0015.
- Lister, S. A. (2011). *Public health and medical emergency management: Issues in the 112th Congress*. Washington, D.C.: DIANE Publishing.
- Lucie, H. Q. (2016). What comes around, goes around (and around and around): Reviving the lost history of FEMA and its importance to future disasters. *Homeland Security Affairs*, 12, Article 6. Retrieved from <https://www.hsaj.org/articles/13214>
- Masten, A. S. (2014). Global perspectives on resilience in children and youth. *Child Development*, 85(1), 6-20. <https://doi.org/10.1111/cdev.12205>
- Masten, A., & Barnes, A. (2018). Resilience in children: Developmental perspectives. *Children*, 5(7), 98. doi: 10.3390/children5070098
- Masten, A. S., & Osofsky, J. D. (2010). Disasters and their impact on child development: Introduction to the special section. *Child Development*, 81(4), 1029-1039. doi: 10.1111/j.1467-8624.2010.01452.x
- McDermott, B. M., Cobham, V. E., Berry, H., & Stallman, H. M. (2010). Vulnerability factors for disaster-induced child post-traumatic stress disorder: The case for

- low family resilience and previous mental illness. *Australian & Aotearoa New Zealand Journal of Psychiatry*, 44(4), 384-389. doi: [10.3109/00048670903489916](https://doi.org/10.3109/00048670903489916)
- McDermott, B. M., & Cobham, V. E. (2012). Family functioning in the aftermath of a natural disaster. *BMC Psychiatry*, 12, 55. doi: [10.1186/1471-244X-12-55](https://doi.org/10.1186/1471-244X-12-55)
- Melton, G. B., & Sianko, N. (2010). How can government protect mental health amid a disaster? *American Journal of Orthopsychiatry*, 80(4), 536-545. doi: [10.1111/j.1939-0025.2010.01057.x](https://doi.org/10.1111/j.1939-0025.2010.01057.x)
- Ministry of Health, Labor and Welfare (2014). Shyakaiteki yogo no genjyo ni tusite. [Present conditions in social protective care]. Retrieved from [http://www.mhlw.go.jp/bunya/kodomo/syakaiteki\\_yougo\\_genjou\\_01.pdf](http://www.mhlw.go.jp/bunya/kodomo/syakaiteki_yougo_genjou_01.pdf)
- Myers, J. E. (2008). A short history of child protection in America. *Family Law Quarterly*, 42, 449-463.
- Mutch, C., & Gawith, E. (2014). The Aotearoa New Zealand earthquakes and the role of schools in engaging children in emotional processing of disaster experiences. *Pastoral Care in Education*, 32, 54-67.
- National Commission on Children and Disasters (2010, October). *2010 Report to the President and Congress*. (AHRQ Publication No. 10-M037). Rockville, MD: Agency for Healthcare Research and Quality. Retrieved from <https://www.acf.hhs.gov/sites/default/files/ohsepr/nccdreport.pdf>
- Nebraska Department of Health and Human Services, Division of Children and Family Services (2019). *2015-2019 Child and family services plan*. Retrieved from <http://dhhs.ne.gov/CFS%20State%20Services%20Plan/Disaster%20Plan.pdf>
- Neilson, M. (2020, February 3). Armed police involved in uplift of Māori baby, Oranga Tamariki inquiry reveals. *New Zealand Herald*. Retrieved from [https://www.nzherald.co.nz/nz/news/article.cfm?c\\_id=1&objectid=12304946](https://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=12304946)
- North Dakota Child and Family Services (2018). *Emergency disaster preparedness continuity of operations (COOP) plan*. Retrieved from <http://www.nd.gov/dhs/info/pubs/docs/cfs/foster-care-disaster-plan.pdf>
- O'Donnell, M., Scott, D., & Stanley, F. (2008). Child abuse and neglect—Is it time for a public health approach? *Australian and Aotearoa New Zealand Journal of Public Health*, 32(4), 325-330. doi: [10.1111/j.1753-6405.2008.00249.x](https://doi.org/10.1111/j.1753-6405.2008.00249.x)
- Omori, H. (2016). Creating families: Tenrikyō foster homes in Japan. *Japanese Studies*, 36(2), 213-229. <https://doi.org/10.1080/10371397.2016.1213620>

- Oranga Tamariki Evidence Centre (2019). *Understanding children with disabilities in the Family Start programme*. Wellington, New Zealand: Oranga Tamariki–Ministry for Children.
- Oranga Tamariki–Ministry for Children (2019). *National Care Standards*. Retrieved from <https://www.orangatamariki.govt.nz/being-in-care/national-care-standards/>
- Oranga Tamariki–Ministry for Children (2020). *Safety of children in care: Biannual Report, July to December 2019*. Wellington, New Zealand: Oranga Tamariki–Ministry for Children.
- Organization for Economic Cooperation and Development (OECD) (2019). Better Life Index. <http://www.oecdbetterlifeindex.org/countries/>
- Osofsky, J. D., Osofsky, H. J., & Harris, W. W. (2007). Katrina’s children: Social policy considerations for children in disasters. *Social Policy Report, 21(1)*, 1-20.
- Overstreet, S., Salloum, A., Burch, B., & West, J. (2011). Challenges associated with childhood exposure to severe natural disasters: Research review and clinical implications. *Journal of Child & Adolescent Trauma, 4(1)*, 52-68. DOI: [10.1080/19361521.2011.545103](https://doi.org/10.1080/19361521.2011.545103)
- Peek, L. (2008). Children and disasters: Understanding vulnerability, developing capacities, and promoting resilience—An introduction. *Children, Youth and Environments, 18(1)*, 1-29. <https://www.jstor.org/stable/10.7721/chilyoutenvi.18.1.0001>
- Pfefferbaum, B., Pfefferbaum, R. L., & Van Horn, R. L. (2018). Involving children in disaster risk reduction: The importance of participation. *European Journal of Psychotraumatology, 9(sup2)*, 1425577. doi: [10.1080/20008198.2018.1425577](https://doi.org/10.1080/20008198.2018.1425577)
- Rath, B., Donato, J., Duggan, A., Perrin, K., Bronfin, D. R., Ratard, R., ... & Magnus, M. (2007). Adverse health outcomes after Hurricane Katrina among children and adolescents with chronic conditions. *Journal of Health Care for the Poor and Underserved, 18(2)*, 405-417. DOI:[10.1353/hpu.2007.0043](https://doi.org/10.1353/hpu.2007.0043)
- Ronan, K. R., Haynes, K., Towers, B., Alisic, E., Ireland, N., Amri, A., ... & Petal, M. (2016). Child-centred disaster risk reduction: Can disaster resilience programs reduce risk and increase the resilience of children and households? *Australian Journal of Emergency Management, 31(3)*, 49-58.
- Sadiq, A. A., Tharp, K., & Graham, J. D. (2016). FEMA versus local governments: Influence and reliance in disaster preparedness. *Natural hazards, 82(1)*, 123-138.

- Samuels, G. M. (2009). Ambiguous loss of home: The experience of familial (im)permanence among young adults with foster care backgrounds. *Children and Youth Services Review, 31*(12), 1229-1239. <https://doi.org/10.1016/j.childyouth.2009.05.008>
- Seager, J. (2014). Disasters are gendered: What's new? In A. Singh & Z. Zommers (Eds.), *Reducing disaster: Early warning systems for climate change* (pp. 265-281). Springer, Dordrecht.
- Shibuya, M. (2007). Study of the construct of dealing with child maltreatment in elementary and junior high school: Focus on the distribution of knowledge of child maltreatment in systems and decision-making procedures [in Japanese]. *Journal of Health and Welfare Statistics, 54*(6), 1-6.
- Shimonishi, S. (2005). The construction of "child abuse" as a problem, and the concept of child rights in the Meiji Era [in Japanese]. *Japanese Society for the Study of Social Welfare, 46*(1), 3-15
- Smith, G., Sabbag, L., & Rohmer, A. (2018). A comparative analysis of the roles governors play in disaster recovery. *Risk, Hazards & Crisis in Public Policy, 9*(2), 205-243. <https://doi.org/10.1002/rhc3.12133>
- Smith, V., Moore, C., Cumming, J., & Boulton, A. (2019). Whānau Ora: An Indigenous policy success story. In J. Lutjens, M. Mintrom, & P. t'Hart (Eds.), *Successful public policy: Lessons from Australia and New Zealand* (pp. 505-29). Canberra: ANU Press.
- Standing, K., Parker, S., & Bista, S. (2016). Grassroots responses to violence against women and girls in post-earthquake Nepal: Lessons from the field. *Gender & Development, 24*(2), 187-204. <https://doi.org/10.1080/13552074.2016.1194562>
- Stats NZ (2020). Population. Retrieved from <https://www.stats.govt.nz/topics/population>
- Stoltzfus, E. (2017). *Child welfare: An overview of federal programs and their current funding*. R43458. Washington, D.C.: Congressional Research Service. Retrieved from <https://fas.org/sgp/crs/misc>
- Suzuki, H., & Tomoda, A. (2015). Roles of attachment and self-esteem: Impact of early life stress on depressive symptoms among Japanese institutionalized children. *BMC Psychiatry, 15*, 8. <https://doi.org/10.1186/s12888-015-0385-1>
- Tanaka, Y. (2011). Understanding the purpose of special topics of child abuse and social care [in Japanese]. *Japanese Journal of Clinical Psychology, 11*, 633-635.

- Tedeschi, F. K., & Billick, S. B. (2017). Pediatric PTSD: Clinical, forensic, and diagnostic understanding. *Journal of the American Academy of Psychiatry and the Law Online*, 45(2), 161-9.
- Tilbury, C., & Osmond, J. (2006). Permanency planning in foster care: A research review and guidelines for practitioners. *Australian Social Work*, 59(3), 265-280. <https://doi.org/10.1080/03124070600833055>
- Ungar, M. (2004). The importance of parents and other caregivers to the resilience of high-risk adolescents. *Family Process*, 43(1), 23-41. DOI:10.1111/j.1545-5300.2004.04301004.x
- United Nations International Strategy for Disaster Reduction (UNISDR) (2015). *Sendai framework for disaster risk reduction 2015–2030*. Retrieved from [http://www.wcdrr.org/uploads/Sendai\\_Framework\\_for\\_Disaster\\_Risk\\_Reduction\\_2015-2030.pdf](http://www.wcdrr.org/uploads/Sendai_Framework_for_Disaster_Risk_Reduction_2015-2030.pdf)
- UN General Assembly (1989). Convention on the Rights of the Child, 20 November. United Nations, *Treaty Series*, vol. 1577, p. 3. Retrieved from <https://www.refworld.org/docid/3ae6b38f0.html>
- UN General Assembly (2007). *Convention on the Rights of Persons with Disabilities : resolution / adopted by the General Assembly*, 24 January. United Nations, *Treaty Series*, vol. 2515, p. 3. Retrieved from <https://www.refworld.org/docid/45f973632.html>
- U.S. Department of Health and Human Services (USDHHS) (2017). *Child maltreatment 2015*. Washington, D.C.: Administration for Children and Families, Children’s Bureau.
- Usami, M., Iwadare, Y., Kodaira, M., Watanabe, K., Aoki, M., Katsumi, C., ... & Tanaka, H. (2012). Relationships between traumatic symptoms and environmental damage conditions among children 8 months after the 2011 Japan earthquake and tsunami. *PLoS One*, 7(11), e50721.
- Wildeman, C., & Waldfogel, J. (2014). Somebody’s children or nobody’s children? How the sociological perspective could enliven research on foster care. *Annual Review of Sociology*, 40, 599-618. DOI:10.1146/annurev-soc-071913-043358
- Zoraster, R. M. (2010). Vulnerable populations: Hurricane Katrina as a case study. *Prehospital and Disaster Medicine*, 25(1), 74-78. DOI: 10.1017/s1049023x00007718