



Early Childhood Development in the Aftermath of the 2016 Wildfires in Alberta, Canada

Author(s): Julie L. Drolet, Caroline McDonald-Harker, Nasreen Lalani, Sarah McGreer, Matthew R.G. Brown, and Peter H. Silverstone

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# EARLY CHILDHOOD DEVELOPMENT IN THE AFTERMATH OF THE 2016 WILDFIRES IN ALBERTA, CANADA

JULIE L. DROLET, CAROLINE McDONALD-HARKER, NASREEN LALANI,  
SARAH MCGREER, MATTHEW R. G. BROWN, AND PETER H. SILVERSTONE

## ABSTRACT

*The 2016 wildfires in Alberta, Canada, created numerous challenges for families with children under five years of age, due to the limited postdisaster access to early childhood development (ECD) programs, resources, and supports. In the immediate aftermath of the wildfires, families struggled to balance recovery activities with childcare responsibilities, which adversely affected their overall recovery. In this article, we discuss three main challenges experienced by families with young children after the wildfires: inadequate access to childcare services, a lack of availability and funding for ECD programs and resources, and limited long-term recovery support for families. Because of their early developmental stage, young children are especially vulnerable to the adverse effects of a disaster and dependent on their adult caregivers, thus it is essential to understand the unique challenges families face after a disaster. Children's prolonged exposure to the stress of a disaster environment is compounded when parents have limited access to crucial programs, resources, and supports during the most crucial periods of rebuilding and recovery. The findings we report in this article provide insights into the critical role disaster and emergency preparedness and planning play in ECD service delivery and infrastructure, and into the need for recovery efforts to "build back better." We advise all levels of government to consider ECD and the provision of child care to be essential services during natural disasters, crises, and pandemics. We further advise them to make the financial investment needed to ensure sustainable recovery operations, including infrastructure, provision of ECD services, and hiring of educators who can deliver high-quality, affordable early learning and child care in postdisaster environments.*

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## INTRODUCTION

On May 1, 2016, a wildfire began in the Regional Municipality of Wood Buffalo (RMWB) in Alberta, Canada, southwest of the town of Fort McMurray. Extreme conditions caused numerous wildfires to burn out of control, and by May 4, the provincial government declared a state of emergency and issued a mandatory evacuation order for 88,000 residents (Government of Alberta 2016a, 2016b). The wildfires, and the resultant mass evacuation, were the largest natural disaster in Canadian history, with total damages estimated at Can\$9.9 billion (Cryderman 2016). Voluntary re-entry into Fort McMurray began on June 1, 2016, and in 2021 the community rebuilding and recovery efforts are still ongoing.

There is an urgent need for a comprehensive early childhood development (ECD) and early learning response to the rapidly growing population of young children living in crisis and conflict situations across the globe (Bouchane 2018). Although ECD is widely recognized as crucial to the healthy growth and development of children ages 0-5, little research has examined ECD service delivery and infrastructure in the aftermath of a natural disaster, crisis, or pandemic, including tangible and fixed capital assets intended for public use or benefit. Bouchane (2018), who analyzed refugee and humanitarian response plans in the context of humanitarian emergencies, found that only 9 percent of plans include the essential elements of early learning. The world's most disadvantaged children, who are in greatest need of support for developing strong early learning foundations, often have no access to ECD programs (Save the Children 2017).

Climate-related disasters, including wildfires, have become more frequent and intense due to climate change; the number of events has tripled in the last 30 years (Oxfam 2020). Children and youth are particularly affected by such disasters because of their dependence on adults and their structural vulnerability to psychological and social factors related to their developmental stage (Brown et al. 2019).<sup>1</sup>

The project titled *Health Effects of the 2016 Alberta Wildfire: Pediatric Resilience* offers a timely assessment of the physical, psychological, and emotional health effects the wildfires have had on children and youth. It also provides a better understanding of the social, economic, cultural, personal, and health factors that contribute to positive mental health and resiliency in a postdisaster context

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<sup>1</sup> Structural vulnerability refers to an individual's or a population group's condition of being at risk for negative health outcomes through their interface with socioeconomic, political, and cultural/normative hierarchies (Bourgeois et al. 2017).

(Brown et al. 2019). Drawing from the study data collected with community influencers—the individuals who deliver services and programs to children, youth, and families for a variety of organizations—we discuss in this article why ECD service delivery and infrastructure must be a component of disaster mitigation. We argue that inadequate access to ECD delivery, lack of funding for ECD programs and resources, and limited recovery support for children, youth, and families in the aftermath of the wildfires had a negative effect on the Fort McMurray community’s overall recovery, including delayed rehabilitation and rebuilding. The study findings provide insight into the critical role disaster and emergency preparedness and planning provide for ECD service delivery and infrastructure, and for “building back better” after a disaster.

### **DISASTERS AND ECD PROGRAMS**

ECD programs support children’s development and help protect them and their families; therefore, having access to these programs is especially critical in times of natural disaster or other emergency (Office of Child Care 2012). With the increased number of disasters occurring globally and in Canada due to climate change, children under age five are among the most vulnerable. During a disaster and the subsequent recovery efforts, early childhood educators can help children regain a sense of safety and address their emotional needs (Dicarlo et al. 2007). Moreover, young children are often in a childcare setting when an emergency occurs, which means they are separated from their parents or guardians (NACCRRRA and Save the Children 2010). Childcare programs, including ECD, can provide children with a safe and secure environment during such separation, and they can help the children and their families manage trauma in the aftermath of a disaster.

Studies have shown that, when their safety or the safety of their caregivers is threatened, infants and young children may exhibit behavioral and physiological symptoms, such as difficulties with self-regulation, problems forming attachments, loss of previously acquired skills, or difficulty sleeping and eating (Zero to Six Collaborative Group 2010). Moreover, the increased stress on caregivers in disaster contexts has been shown to affect preschool children’s cognitive outcomes (Gomez and Yoshikawa 2017). Research shows that providing postdisaster emotional support to families with children under age five is a factor in the children’s psychosocial resilience (Deering 2000), thus the need for ECD providers who support children’s caregivers is evident.

Experiencing a wildfire has been linked to psychological distress (Freedy et al. 1994), mental health difficulties (Freedy et al. 1992; Marshall et al. 2007), an overall decline in health and wellbeing (Paveglio et al. 2016), and a reduction in one's ability to cope (Langley 2000). This is particularly concerning, given that the ability to cope is an important factor in the postdisaster recovery process and can significantly impact long-term mental health outcomes (Langley 2000). In disaster situations, families often are displaced and thus face enormous physical, emotional, and psychosocial stress, which in turn can affect their children's development and growth (Masten and Osofsky 2010).

Children are often more adversely affected by a disaster than adults, due to the effects on their physical and psychological health and the disruption of their education (Proulx and Aboud 2019; Peek 2008). Despite awareness of these effects, critical gaps in the research on ECD response during disasters and emergencies remain, particularly on the impact of interventions and social services in the ECD sector (Burde et al. 2019). There also is a paucity of research on disaster risk reduction for preschool children.

#### **STATE OF ECD SERVICES AND INFRASTRUCTURE IN FORT McMURRAY BEFORE THE WILDFIRES**

Canada's federal and provincial governments have differing strategies for supporting ECD. The province of Alberta relies on a mix of public, for-profit, and not-for-profit providers for the organization, funding, and delivery of ECD services, which results in services of modest quality that are unevenly distributed and poorly connected at the local, regional, and provincial levels (Muttart Foundation 2016). The limited public funding for ECD across Canada and the provinces' jurisdiction over education and social services results in municipal governments having a limited role in decisions about the delivery of early childhood learning and care and without responsibility for the management of ECD services (Muttart Foundation 2016). The result is a patchwork of programs, services, and supports, including ECD, child care, before- and afterschool programs, family counseling, and other support services.

The RMWB is in a remote northern area of Alberta yet close to oil sands and gas industry facilities. Two-thirds of the population of the RMWB reside in Fort McMurray, a unique community of approximately 43,000 residents, many of whom are transient, due to the industry in the area. In 2015, the declining price of oil led to a dramatic bust in the sector's decade-long boom (Cake et al. 2018),

which created economic challenges in the Fort McMurray community that were exacerbated by the 2016 wildfires.

Fort McMurray's unique culture is characterized by long hours on the job, rotational shift work, and a high cost of living. Moreover, in 2016, 57 percent of children under age six and 55 percent under age three had working mothers (AECEA 2020a). Child care is thus an essential service for most Alberta families with young children, yet Fort McMurray has the most expensive childcare facilities in the province (Dorow et al. 2015). Although there was increasing awareness in the community of the value of high-quality care for young children and of the importance of specialized education and training to foster healthy ECD (Tough et al. 2013), Alberta's underfunded early learning and childcare system has been lacking appropriate spaces and workforce development since before the 2016 wildfires. Keyano College, which serves the northeastern region of the province and has a campus in Fort McMurray, offers an early learning and childcare certificate program; however, the program was suspended in 2015, due to low enrollment and a shortage of qualified early childhood educators in the region (Muttart Foundation 2019). Although the program was reinstated after the wildfires, the shortage of qualified educators continues.

### EFFECTS OF THE WILDFIRES

After the wildfires, schools in Fort McMurray played an important role in the recovery process by serving as community hubs and providing social and emotional support for children, youth, and parents (Kulig et al. 2017). Some schools, in partnership with nonprofit organizations such as the YMCA, offered ECD and early learning programs on site or in buildings adjacent to the schools (YMCA 2020). School staff members received professional development related to trauma-informed practice, grief and loss, skills for psychological recovery, and reactions to disaster (Kulig et al. 2017). A psychosocial coordinator was hired to support the resilience and wellbeing of children, youth, and families. The coordinator used a psychosocial pyramid-of-intervention approach to provide specialized supports for the few, targeted supports for many, and universal supports for all.<sup>2</sup>

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2 The coordinator used a psychosocial approach adopted by Alberta Health Services, which recognized the importance of universal supports for all, such as information and communication, to specialized and targeted supports, such as specialized mental health interventions. It is a stepped-care approach. See <https://www.albertahealthservices.ca/assets/healthinfo/mh/hi-mh-pfa-after-disaster-emergency-public.pdf>.

Providing adequate services after the wildfires was sometimes difficult, as many community organizations, as well as health, education, and social service agencies, found it challenging to recruit and hire staff. The ECD sector also experienced a serious shortage of childcare workers (Thurton 2017), all of which affected the community's recovery process (Kulig et al. 2017).

### **“BUILDING BACK BETTER”**

Environmental disasters, crises, and emergencies compound and highlight existing inequalities and disproportionately affect marginalized communities across the globe. The concepts of disaster preparedness, risk reduction, and recovery provide a lens for understanding ECD service delivery and infrastructure in the RMWB following the 2016 wildfires. The “building back better” (BBB) framework, which is often associated with disaster preparedness and recovery, promotes resilience and reduces vulnerability to future disasters (Fulton et al. 2020; Fulton and Drolet 2018).<sup>3</sup> Following the wildfires, the RMWB created a recovery task force to provide oversight of community-based recovery efforts. The task force officials brought together a variety of stakeholders to address the wide-ranging needs of individuals, communities, and organizations during the recovery. This effort was based on five pillars: people, economy, environment, rebuild, and mitigate (KPMG 2017); the people pillar supported the community's mental health and wellbeing using a psychosocial framework that included providing access to safe and effective education services (Kulig et al. 2017).

The BBB approach to postdisaster recovery reduces vulnerability to future disasters and builds community resilience, which is applicable to all sectors of society (Global Facility for Disaster Reduction and Recovery n.d.). In order to build capacity and promote disaster preparedness, risk reduction, and effective recovery efforts in the early learning and ECD sectors, the recovery framework must include opportunities for change and improvement.

### **DISASTER PREPAREDNESS**

Disaster preparedness includes the strategies, plans, and activities undertaken prior to a calamitous event to ensure an effective response. Preparedness includes developing an emergency response plan, establishing mutual assistance agreements between service providers, maintaining resource inventories and

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<sup>3</sup> The BBB framework has been adapted to the current COVID-19 pandemic response.



equipment, and conducting trainings on disaster response and recovery for all services (KPMG 2017). Preparedness in the ECD sector should include targeted interventions that prepare services and infrastructure to withstand and recover from disasters (Shores et al. 2009). In Canada, municipal governments play a key role in emergency management and are often the first to respond to disasters and emergencies in their communities. While the federal and provincial governments are involved in disaster and emergency planning, the operations that respond to emergencies are planned locally.

### **DISASTER RISK REDUCTION**

Disaster risk reduction and mitigation are important components of how a community understands disaster risks in all sectors of society. Canada is a signatory to the United Nations Sendai Framework for Disaster Risk Reduction, a voluntary, nonbinding 15-year agreement that recognizes that, while federal and provincial governments play a primary role in reducing disaster risk, responsibility should be shared by all sectors of society. The Sendai Framework emphasizes the need to have continuity in the operations that follow disasters, including providing psychosocial support and mental health services (United Nations 2015).

### **DISASTER RECOVERY**

Recovery refers to a municipality's strategies, plans, and actions taken to restore conditions to an acceptable level after a disaster, and to continuously improve prevention and mitigation measures to reduce future disaster risks. The RMWB aims to build back better by supporting community resilience and minimizing the impact of future disasters. In 2016, the RMWB developed the Wildfire Recovery Plan, which defines recovery as the "restoration, re-development, regeneration, rehabilitation, and improvement (adopting the 'build back better' principle) of facilities, livelihoods and living conditions of disaster-affected communities" (KPMG 2017, 6). The BBB principle reflects those of the Sendai Framework, including enabling communities to address underlying socioeconomic issues through a planned recovery approach and thus to enhance community resilience (Public Safety Canada 2019). In order to build back better in the ECD sector after a disaster, additional supports and resources are needed to deliver early learning and child care. This was particularly true in Fort McMurray when the wildfires recovery effort intersected with the COVID-19 pandemic and the provincial economic downturn.

## METHODOLOGY

Our study adopted a qualitative approach focused on sharing knowledge with our community partners, including school districts, government departments, and community organizations. This enabled us to build our capacities collaboratively and informed our actions to address collective community concerns. The research team included academic and community-based researchers, knowledge end-users such as health services and education districts, health services and education district decisionmakers, and our community partners. In this article, which is based on qualitative interviews we conducted with 30 community influencers who deliver services and programs to children, youth, and families for a variety of organizations (Fulton et al. 2020; Drolet and Fulton 2018), we discuss our findings on the wildfires' effect on ECD service delivery and infrastructure.<sup>4</sup> The community influencers included direct service providers, ECD educators and managers, community decisionmakers, social workers, and human services practitioners. We conducted semi-structured, in-depth interviews to learn about the roles they played during the evacuation, re-entry, and recovery stages. Most of the participants provided services and programs to foster the community's postdisaster wellbeing and resilience, including ECD services and education.

We recruited the interview participants in Fort McMurray using a purposive snowball sampling approach. Our aim was to understand the perspectives and experiences of those directly engaged in the delivery of services and programs for children, youth, and families after the wildfires. To locate potential participants who met the study criteria, we conducted a scan of social service agencies, community organizations, healthcare services, and education structures, and accessed community directories. We obtained approval for the study from the University of Calgary Human Research Ethics Board and conducted the interviews from December 2018 to February 2019. Each participant received a \$50 gift card and, to protect their anonymity, we have not shared any identifiable personal details. The participants, who provided rich descriptions of the postdisaster recovery context, were interviewed for 1-2 hours on average. The interviews focused on understanding each subject's perspectives and experiences, the availability and provision of services and programs postdisaster, and their understanding of child and youth mental health and resilience in the context of the wildfires.

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4 Members of the study research team also administered a survey to 3,070 students in grades 7-12 to measure the psychological impact the wildfires had on children/youth (results are discussed in Brown et al. 2019), and completed 100 face-to-face qualitative interviews with school-age children/youth (ages 5-18) to examine the psychosocial factors that contribute to resilience.

We digitally audio-recorded the interviews with the participants' consent, and the researchers wrote memos about the important discussions and issues. The interview recordings and the memos were then transcribed for coding and analysis. Two members of the research team analyzed each interview transcript using open coding, axial coding, and selective coding to identify emerging themes, links, and associations. We extracted coded quotes for preliminary analysis, compared them within and between transcripts, and then grouped them according to key themes and subthemes. Two research assistants collected and analyzed our data separately using the procedures described above, and then integrated them for a final analysis. We used NVivo 11.0 to support our qualitative analysis of the interview data, and the researchers worked to reach a consensual interpretation.

## **FINDINGS**

The analysis revealed gaps in the availability and provision of ECD services and facilities after the wildfires. The limited availability of and access to ECD programs and resources created numerous challenges for parents with children under age five, which left families struggling to balance recovery activities with their childcare responsibilities and affected their overall recovery. The interviews revealed three main challenges: inadequate access to childcare services, lack of funding for ECD programs and resources, and limited long-term recovery supports for children, youth, and families. Thus, we argue that disaster preparedness, risk reduction, and recovery plans must take into account the critical importance of ECD service delivery and infrastructure.

### **INADEQUATE ACCESS TO CHILDCARE SERVICES**

One of the most significant challenges families faced following the fires was inadequate ECD services and infrastructure. Moreover, the displacement, upheaval, and increased responsibilities families faced during recovery altered and constrained their lives. Once they were allowed to return home after several weeks or even months, families were tasked with numerous time-consuming remediation responsibilities and activities. Because many childcare facilities were closed due to the damage caused by the wildfires, families had to start the rebuilding process with little or no access to child care. The childcare facilities not destroyed beyond repair were permitted to reopen, but only after extensive cleaning, repair, and multiple inspections and safety checks. Most of the participants discussed the serious difficulties the lack of child care created for families, which often delayed their return to the community. This was particularly challenging for parents

working for organizations and businesses deemed emergency or essential services, such as hospitals, banks, and grocery stores.

The COVID-19 pandemic has further demonstrated the importance of childcare provision during an emergency. Some provinces and territories have provided emergency childcare services for essential workers during the pandemic (Childcare Resource and Research Unit 2020).<sup>5</sup> One participant, who is a female early childhood educator, commented that child care was not considered an emergency or essential service in Fort McMurray after the fires, thus little support was provided to repair childcare facilities quickly. This left parents without child care, which delayed their return home:

It was a little bit of a struggle in the beginning, as we were not recognized as an emergency service to open up for families; however, for families to work, they need child care. So, the banks and the grocery stores, they were all open before re-entry; however, parents couldn't return until child care was available. So, I was one of the first childcare employees to return to Fort McMurray, and I had to set up licensing, licensing inspection, fire inspections, health inspections.

All of the interview participants who worked in the ECD sector discussed the significant difficulties the lack of child care posed for many families after they returned to the community. Before they could begin repairing their damaged homes, parents had to meet with representatives from insurance companies, financial institutions, disaster recovery programs and services, and others. This was particularly challenging for parents with young children, as they had to take care of these time-consuming activities while also caring for their children. Other out-of-school programs and alternative childcare services were also not operational, another cause of a delayed return to the community. As one female educator asserted,

our out-of-school program didn't open up . . . [despite] parents having to have babysitters . . . [in order] to spend a day with a lawyer or at a bank . . . you know? Those are things we don't think about. We have families to take care of and . . . have business to do, too.

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<sup>5</sup> Essential workers are those critical to preserving life, health, and basic societal functioning (Government of Canada 2020).

The lack of child care for both working and nonworking parents affected their ability to access public benefits and engage in efforts to rebuild the community. This was compounded by the fact that more children needed child care than there were spaces and providers available.

Most of the participants explained that many providers were not able to return to the ECD workforce, as they were busy rebuilding their own homes and caring for their own children. The lack of ECD services that families could rely on created multiple barriers during the rebuilding after the wildfires. A female educator stressed how critical child care was in helping individuals and communities recover after a disaster:

It's that key piece where—I mean there's definitely day[care] homes where they have staff with the qualification to watch children, but when there's such a large amount of children [what happens?] It's one of the first step[s] . . . If they had child care, the rebuild would be a lot quicker.

Participants who delivered health, social, education, and community services and programs to families explained that many parents had to resign from paid employment in order to care for their children, which put added psychological and financial stress on families and affected children's wellbeing. A female participant stated that ensuring child care was in place before allowing people to return to the community after a disaster would go a long way in helping families' ability to recover:

[Not having child care] adds to the pressure on the family because, you know, if someone's been working before and then can't work because they can't find proper child care, it puts strain on the family . . . If resources are put in place or the government make[s] it a little bit cheaper or subsidize[s] it, then it might be a lot easier on people.

Working parents in Fort McMurray experienced not only limited access to child care but also numerous financial constraints. The majority of participants reported that, while parents were able to be physically present with their children postdisaster, they were not always emotionally available, which affected their children's wellbeing. They observed that parents were often busy with the rebuilding and were therefore unable to be as involved in their children's lives

as they had been before the fires. A female educator expressed concern that parents' limited ability to provide socioemotional support for their children after the wildfires would have long-term adverse effects. She reflected on her ECD experiences with young children:

If government can find a way to make it cheaper for parents to be able to support their kids, child care and all that might work better, you know? I think that's a big one, because most family [*sic*] are quite stressed when it comes to child care and supporting their kids.

Another educator added that “the people who are okay are okay. The people who are not okay are still not okay, in my opinion. There are still families who are struggling, you know, mentally, and we know that there are families who are struggling financially, [as] they are unable to pay for childcare fees.” Families were affected by the wildfires in different ways. The socioeconomic impact reduced families' ability to afford childcare services, and the lack of child care and other supports likely delayed some families' recovery process.

#### **LACK OF FUNDING FOR ECD PROGRAMS AND RESOURCES**

The lack of funding for ECD programs and resources in the Fort McMurray community after the wildfires made it difficult for the sector to meet the needs of children, both in the immediate remediation period and during the long-term recovery. Many organizations and facilities offering ECD programs had lost materials that needed to be replaced, such as toys, games, and learning materials, but they lacked the funds to buy them, let alone to rebuild damaged facilities. Consequently, many programs were not able to run effectively or to offer the services they had before the fire. One participant stated that having financial support for ECD programs and resources before the disaster would have reduced the time it took to rebuild, reopen, and once again offer the support children needed:

More funding would help to get more people to get places back up and running again. For example, our programs couldn't reopen until every single toy and walls were washed. Every single thing in our program had to be gone through . . . A lot of our stuff had to be thrown out, stuffed toys and pillows, . . . and we had to sanitize . . . to get back to where we were. I volunteered my time to help get our program back up and running. [It would have

helped] if we did have more funding, to have people who are willing to help and in the right mindset. It would have helped rebuild a lot quicker.

Another participant asserted that many of the organizations and facilities that offer ECD programs and services were not consulted about their specific funding needs, and that the short- and long-term needs of children were not considered:

So [we] have funding restraints as well. I think, . . . because they're one of our major funders, they could have brought us to the table to discuss a little more how would it look moving forward if we were to change our funding stream. They more or less mandated it. And they looked at it from a numbers' perspective rather than from a person's perspective.

Funding to hire additional staff during the recovery period—counselors, mentors, family-school liaisons—also was limited. One participant described how extremely limited many early childhood programs and services were and noted that many families and children did not have access to the supports they needed, which had long-term effects:

[It] is a great agency who works with the mentors that come into our building. They didn't have funding, we didn't have enough workers [or] mentors to come in and work with our kids, but the counselors had full lists plus [a] waitlist, the family school liaison workers had [a] waitlist and the mentors had [a] waitlist, and we still weren't reaching everyone. And that's to this day still very much the case . . . there is not enough of us . . . If we had the funding, [we] could easily put a couple of family therapists in our schools to help with the children and the families . . . We actually do not have anyone in town who does the family work.

Another participant noted that the problem of limited funding was further compounded by Fort McMurray's remote location, which made it nearly impossible to find people willing to come into the community to provide the supports children needed:

So that's a huge piece of . . . the barrier . . . There is not enough money . . . to get more people in, and there is [*sic*] not enough professionals willing to come up here in[to] our community, so it's twofold. You know, like, if we had more grants and more funding to get more counselors, we would get them. But . . . trying to find them in other communities [and have them] willing to come into our community is another thing. So, we don't have the funding to get them, but we also don't have enough of a pool of people who are trained to . . . do the work. So that is definitely a barrier.

Interview participants discussed the need for programs and resources to address the diverse needs of struggling children. They recognized that funding was needed for ECD programs and services in order to meet the multiple and changing needs of children during the long-term recovery.

#### **LIMITED LONG-TERM RECOVERY SUPPORTS FOR FAMILIES**

In Alberta and other areas affected by environmental disasters, recovery funding was made available for up to three years. Most participants agreed that this limited funding for the long-term recovery was a significant challenge for children, parents, and early childhood educators. Participants explained that the psychosocial trauma caused by the disaster often appeared in children quite some time after the event. Because parents and other adults were often preoccupied with rebuilding efforts, they often did not immediately notice that their children needed support, or they believed that problems such as sleep disturbances, psychosomatic symptoms, or regressive behaviors would subside over time. A participant who worked in the social services sector described how, several years after the wildfire, the long-term trauma the disaster caused families was becoming more evident:

I think we're just starting to really see the impact. I think the first two years we were so busy, and we put all these programs into effect and [focused on] do, do, do, to help, help, help, but now we are all living in it and we are going "Wow! The third year is actually really difficult."

Another participant who worked in mental health and wellness stated,

3½ years out and kids are still struggling . . . We are not the same community. We are a community with a lot of struggling



families. Many of us, myself included, have bounced back. We're back to our normal routine, good food, exercise, and balanced holidays. [But] we [still] have a lot of famil[ies] struggling out there. It's hard work.

According to the majority of the participants, many parents and children were still struggling several years after the wildfires. Most expressed concern that, as disaster funding was reduced over time, they would no longer be able to help these parents and children. One participant explained that the programs and services her organization offered after the wildfires were not sustainable over the long term, due to a lack of financial support:

Some of the challenges that we did see was, like, sustainable funding. So after the wildfire we had, . . . like, so much funding for rebuilding and . . . resources . . . Now the funding is . . . being depleted.

Another participant described the devastating impact the lack of long-term funding was having on the wider community, as service providers and practitioners were left to meet the postdisaster needs of children and families with few or no resources:

It is a shame that the higher powers did not recognize when they put this funding in place for . . . only a short term, three years. You know, that's very unfortunate, because we're going to be crumbling in the next couple of years in ways that nobody probably is really realizing. And there's not going to be enough of us to pick up the pieces. So, that will be my takeaway messages.

The majority of participants discussed the importance of having accessible funding for disaster planning and mitigation efforts, such as developing and implementing emergency preparedness programs, evacuation plans, and additional physical infrastructure.

The lack of long-term recovery support for families has had serious consequences for both parents and children. Parents were often overwhelmed by the amount of work required for disaster remediation, rebuilding, and recovery, and the high level of stress they experienced affected their overall mental health and wellbeing:

People [were] contemplating suicide, people [were] delaying adoption. There are certain people that their lives will never be the same. Do I think that people can move on and still have a good life? Of course, but I don't think full recovery is within the scope of a short-term future. It's been two years; it's a long time, but it's a short time considering what many went through.

Participants explained that long-term support was needed to foster positive mental health and resiliency in children during the recovery. As a practitioner participant stated, "The mental health support needs to continue here, as well as the understanding of behaviors, the anxiety, and the resiliency . . . in children." The limited access to mental health support has affected children, parents, and the wider community recovery process. A participant explained that a long-term recovery process requires long-term attention and support: "In a lot of ways we haven't fully recovered. If you walk in as an outsider, you would feel like it's a normal community. But if you know enough people here, you would know that not many have moved past [the disaster]."

One participant commented that disaster recovery is a challenge because the community will never be the same:

People used to ask me, "Are we going to ever recover?" I said, "We'll never be the same. We might bounce back better. We might become better, but we'll never be the same." We call it the "new normal." I don't know if I like the term too much. It's going to be different . . . There are some things that have happened, people feel attached. They've all lived through a common experience. There are some thoughts that [the] community got stronger. There are some beautiful new houses built and people living in beautiful new houses, which is nice.

The limitations of short-term disaster recovery funding were perceived to be an obstacle to the community's recovery and rebuilding efforts. Participants recommended that additional financial support be provided to sustain services and programs in order to fully meet the needs of children and families.

## DISCUSSION

The study findings provide insights into the critical role disaster and emergency preparedness and planning play in ensuring ECD service delivery and infrastructure during and after a disaster. Families' childcare needs after a disaster were an important finding, given the importance of ECD services in supporting the rebuilding and recovery process. After the wildfires, many families lost jobs and experienced financial challenges, which created new barriers to accessing affordable, high-quality child care. The evacuation of Fort McMurray resulted in the displacement or relocation of families to central and southern Alberta; some families migrated to other provinces in order to access social, economic, and cultural support. Moreover, because Fort McMurray attracted workers from across the country, the community faced unique challenges in providing psychosocial services postdisaster.

Displacement resulted in the loss of ECD services for some families, as physical structures and educational materials were damaged or destroyed, and all ECD centers closed. The wildfires also considerably affected the ECD workforce and the community that relied on them. Most childcare providers in Fort McMurray lost their jobs immediately after the evacuation, which resulted in a loss of income and livelihood for staff members and funding for programs. Many residents never returned to RMWB (Thurton 2019), including members of the ECD workforce. Participants described the lack of qualified ECD staff after the wildfires, which has continued to be a challenge during the long-term recovery. Similar findings on the need for targeted interventions and policy changes to prepare childcare facilities to withstand and recover from disasters were reported after Hurricane Katrina shut down New Orleans in 2005 (Shores et al. 2009). These are critical challenges for the ECD sector to consider so they can build back better in future postdisaster contexts.

The Sendai Framework for disaster risk reduction outlines the need to enhance disaster preparedness in order to provide an effective response and to build back better (United Nations 2015). Everyone has a role to play in building back better, including the ECD sector. The inadequate access to childcare services, the lack of funding for ECD programs and resources, and the limited recovery support for Fort McMurray's children, youth, and families have impeded individual and community recovery efforts. Disaster and emergency preparedness and planning must put greater emphasis on strategies to restore access to safe, accessible, and affordable ECD services and infrastructure and early learning programs in postdisaster contexts. Disasters can create opportunities for change and improvement and to disrupt inadequate policies and practices (Fernandez and Ahmed 2019). Taking

a BBB approach, which can create equity in the postdisaster context, can be interpreted in multiple ways, and it is incumbent upon the ECD sector to provide leadership in developing a collaborative, participatory process that engages the affected communities (Fernandez and Ahmed 2019). Disaster preparedness, response, and recovery are context specific, and the study findings reveal the unique considerations for ECD service delivery in Fort McMurray after the wildfires, such as environmental health issues; the effects of displacement; the physical, health, and emotional wellbeing of ECD staff, children, and families; and the importance of access to childcare services.

### **RECOMMENDATIONS FOR POLICYMAKERS**

It is critical that municipal government policymakers consider ECD service delivery and infrastructure to be essential components of disaster response at the municipal level, including disaster preparedness, risk reduction, mitigation, and recovery. Communities affected by a disaster require long-term funding to ensure a full recovery. Emergency preparedness in the ECD sector can reduce the damage a disaster inflicts on young children. Moreover, adequate preparedness can enable ECD programs to recover quickly and restore a stable environment for young children, which has been shown to improve their psychosocial and emotional outcomes (Shores et al. 2009).

The COVID-19 pandemic has brought additional attention to the importance of ECD and education systems in times of crisis. A national survey conducted by the Muttart Foundation and the Canadian Child Care Federation (2020) found that childcare centers in Alberta suffered more layoffs during the first six weeks of the pandemic than those in other provinces and were significantly more exposed to the negative social and economic impact of the pandemic, due to the lack of provincial government financial support. Without access to early learning and childcare centers during the ongoing COVID-19 crisis, some parents have been unable to re-enter the workforce (Johnson 2020). This confirms that accessible quality child care is vital for essential service workers during a crisis or disaster, including first responders, nurses, grocery workers, and others. Furthermore, ECD services are needed so that infants and young children can get the care they need while their parents focus on rebuilding family and community life. The Alberta wildfires and the COVID-19 pandemic should make the importance of education in the early years clear to those engaged in preparedness and planning for situations of conflict and crisis (Bouchane 2018). It is imperative that the basic needs and rights of the youngest children are met in all situations, including during crisis, conflict, forced displacement, pandemics, and environmental disasters.

Access to quality ECD services and infrastructure was essential to Fort McMurray's families, children, and economy before COVID-19, and it will be critical in the post-COVID rebuilding period (AECEA 2020b). The challenge of providing ECD services has been magnified during the recent disaster and public health emergency in Alberta, and in all of Canada; all childcare services were closed to all but the children of essential workers during the COVID-19 lockdown, and the need for child care during recovery and reopening is finally being recognized (Press and Wright 2020). In Fort McMurray, as in many crisis-affected contexts globally, disaster recovery now intersects with the COVID-19 pandemic. Significant new investment is needed to stabilize the early learning and childcare sector in the town and across Alberta, and to build back better to ensure high-quality, affordable early learning and child care in an environment that has been dramatically changed by the pandemic. The findings of this study offer insights for policy and practice and highlight the need for accessible, affordable, high-quality child care, which must be treated as an essential service during and after a disaster, crisis, or pandemic. This is critical if communities are to meet the needs of children and families, to successfully reopen their economies, and to facilitate long-term recovery.

We make the following recommendations:

1. All levels of government must acknowledge the essential role of the early learning and childcare sectors, particularly in times of disaster, crisis, and pandemic. Financial investment is needed to prepare the ECD sector for the negative impact of disasters, crises, and pandemics.
2. Childcare centers need support in order to reopen and resume services postdisaster, which will facilitate individual and community recovery.
3. It is not sustainable for ECD centers to lay off staff during a disaster or public health emergency, given the additional time and resources required to recover and rebuild their organizational capacity.
4. Additional supports and resources are needed for ECD service delivery, infrastructure, and educators who can deliver high-quality, affordable early learning and child care in postdisaster environments.
5. Disaster and emergency management officials must plan for the provision of child care as a service that is vital and essential to the function of communities.

## CONCLUSION

ECD and the provision of childcare services are vital to a community. This is particularly so in times of disaster, crisis, and public health emergency. The provision of ECD services in disaster-affected communities contributes to the continuity of care for children and families, minimizes the psychological impact of the disaster, and promotes resilience in children (Office of Child Care 2017). This study found that the lack of child care in Fort McMurray after the wildfires affected families' ability to engage in postdisaster recovery efforts and likely delayed the process for some. Improved disaster preparedness, disaster risk reduction, and disaster recovery planning are urgently needed in the ECD sector. The BBB principle should be applied to postdisaster ECD service delivery and infrastructure in order to reduce risks. Investment in ECD infrastructure and programming as an element of disaster risk reduction will facilitate recovery by allowing families to access relief assistance and recovery services. Additional financial support is needed during emergencies in order to sustain services and programs and continue to meet the needs of children and families. It is critical for the ECD sector to take the lead in developing a collaborative, participatory community process for disaster preparedness.

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