THE SCHOOL OF PUBLIC POLICY

MASTER OF PUBLIC POLICY CAPSTONE PROJECT

Academic, Political, and Community Engagement: Crafting Pandemic Preparedness Policies for Vulnerable Families

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Executive Summary

To optimally support the health of families, interventions provided by community organizations must be evidence-based. Research attracts awareness to particular community issues; however, there is often a disconnect between research collection and subsequent translation into community-level policies. Evidence-based interventions may have proven efficiency, yet research rarely results in the political action necessary to translate interventions into community practices. When research does inform policies, and programs, the process can take decades. Implementation of evidence-based practices is necessary to mobilize research into practice and improve outcomes for families who rely on services.

This project sought to identify the challenges community organizations face in accessing and providing evidence-based services, as these services promote optimal outcomes for families. COVID-19, as a focusing event, has highlighted pre-existing political, economic, and structural impediments to knowledge mobilization. The barriers and solutions proposed by participants in the research have pre-existed, but been exacerbated by, the context of a pandemic. Prior to conducting research, a literature review informed the need for increased support, communication, and funding for community organizations. The Nominal Group Technique (NGT) was used after the literature review was conducted to contextualize this need in Calgary. Five NGT groups were held over the course of two weeks to generate ideas surrounding barriers to evidence-based service provision throughout COVID-19, as well as solutions that have the potential to address aforementioned challenges.

The three main barriers prioritized by participants included reduced revenue streams, transition to online service delivery, and inadequate communication and collaboration with government. Participants emphasized two solutions: person-centred policies and programs, and reciprocal collaboration. The literature and NGT groups result both support a need for cross-ministerial collaboration, community-based research partnerships, and engagement and consultation with community organizations. These findings are not novel or unique to COVID-19. Barriers mentioned preceded the pandemic, and solutions provided have continual impacts to support the health of families outside the context of a pandemic.

Policy recommendations promote the priorities iterated by participants in the NGT groups. To address the barriers to evidence-based service provision throughout COVID-19, three policy options are recommended: (1) education and consultation with community organizations, (2) subsidy and grant provision for community-based research, and (3) formalizing a local network of researchers, community organizations, and policymakers. Next steps include validating the results of this study with an online Delphi and conducting a multijurisdictional environmental scan to determine best practices to support families with evidence-based service.

Introduction

Global health crises, such as influenza pandemics, have catastrophic impacts economically and socially. However, not everyone is impacted equally. These crises disproportionately burden people and families who experience concurrent vulnerabilities, such as poverty, disability, and marginalization (Uscher Pines et al. 2007, 32). Pre-existing vulnerabilities are prone to increasing due to inadequacies in organizational structure and service systems (Buccieri and Schiff 2016, 1).

Families and children who rely on community and social services for daily functioning are especially at disproportionate risk. Families experience need for a variety of reasons under three overarching domains: economic need, physical need, and social need (ODPM n.d.). For families, susceptibility to risk increases with food insecurity, poverty, homelessness, disability, mental illness, insufficient natural supports, domestic violence, and discrimination (Riederer, Philipov, and Rengs 2017, 2). Community-level services such as disability supports, newcomers' centres, emergency food and shelters, prevention programs, counselling, and women's shelters help families mitigate risks (FCRC n.d.). To promote best outcomes, practices should be community-based and supported by quantitative and qualitative research, case studies, professional guidelines, or authoritative opinion (Titler 2008, 1).

While community organizations play a crucial role in helping families mitigate risk, evidence-based practices are challenging for organizations to consistently implement (Ramanadhan, Crisostomo, and Viswanath 2011, 718). Evidence-based practices, correctly applied, promote safe and optimal outcomes for children and families (APA 2008, 6). Yet, implementation of evidence-based interventions within community-based practice has been

limited (Ramanadhan, Crisostomo, and Viswanath 2011, 718). When implementation is achieved, the translation process is often slow (Southam-Gerow 2013).

Global health crises may reinforce, and even exacerbate, these pre-existing knowledge mobilization challenges. Particularly, the COVID-19 pandemic has limited the accessibility of community-level, evidence-based services, such as Applied Behaviour Analysis (ABA) therapy, counselling, case management interventions for homeless populations, and academic instruction for English as a Second Language learners (UNICEF 2020; NASEM 2017; Pottie et al. 2020; Richards-Tutor, Aceves, and Reese 2016). Infection curtailment instructions such as physical distancing and stay-at-home orders have halted delivery of many vital in-person services. Families have had trouble accessing services throughout the pandemic due to inadequate technological access, staff availability and risk perceptions, Personal Protective Equipment (PPE) shortages, reduced engagement, and inability to translate specific services to online platforms (Phoenix 2020). Furthermore, many social services do not have experience with digital provision and lack a substantive evidence-base to promote their efficacy. There is a need for greater research into digital service provision and swift mobilization of this research into community-level programs.

This project focuses on identifying priorities to improve accessibility to community-level, evidence-based practices. Specifically, this research examined experiences pertaining to evidence-based practice provision during the pandemic. By examining the experiences of community organizations providing support to families in Calgary throughout COVID-19, this project recognizes structural and political disparities that impede access to community-based,

scientifically effective interventions and articulates potential solutions to address these barriers.

Background

Vulnerable Families

Vulnerability is an ambivalent term that can pertain to various dimensions of risk susceptibility. Three broad influences prescribe potential vulnerability for families: physical factors, social factors, and economic factors (ODPM n.d.). Particularly, social vulnerability pertains to outcomes of the social determinants of health, which directly result from the structural, cultural, and political systems that shape healthy families (Deatrick 2017, 426). The social determinants of health often refer to factors beyond physical health that contribute to health inequity (CPHA n.d.). The CPHA recognizes the following fourteen social determinants of health and their impacts on families:

- Income variation amongst families
- Accessibility of education
- Employment security
- Labour conditions
- Early childhood experiences and development
- Accessibility of food
- Housing security
- Social inclusion/exclusion
- Adequacy of a country's social safety net

- Quality and accessibility of health care
- Indigenous status
- Gender
- Race
- Disability

The social determinants of health are physical, social, and economic. However, families specifically experience social vulnerability when they encounter obstacles to accessing structures that ameliorate adverse impacts of these determinants (CPHA n.d.).

Often, the term “vulnerability” refers to an individual or group’s susceptibility to extraneous impacts of hazards (UNDRR 2007). Vulnerability and social risk factors are frequently described in the context of risk management or disaster recovery (Gray 2017, 2). Yet, deficits in the structures that help families navigate social risk factors reduce coping capacity during disasters (Nagamatsu n.d.). Disparities have the potential to grow in the presence of catastrophic events, such as natural disasters, civil unrest, and influenza pandemics (Homeland Security 2012). If structures that create healthy families are insufficient prior to disasters, management and recovery will be more challenging for families who experience vulnerabilities outside the context of a hazard. As stated by Dr. Anthony Fauci, director of America’s National Institute of Allergy and Infectious Diseases, disasters “shine a very bright light on some of the weaknesses and foibles in our society” (Fauci 2020). During disaster management and recovery, inadequate social structures increase vulnerability for families who rely on structural, political, and cultural systems for their daily functioning.

Community-level supports and services help families navigate their specific vulnerabilities in a proximate context. These services and supports are based geographically within the community, housed in institutions such as schools, neighbourhoods, and organizations (McLeroy et al. 2003, 530). Community-based organizations implement supports and services in a targeted approach to specifically promote the well-being of their community members (Trickett et al. 2011, 1410). These interventions achieve best outcomes when they are culturally sensitive, co-created, and evidence-based (McLeroy, Norton, and Sumaya 2003, 530).

Community-based organizations provide services to a variety of vulnerable populations, including newcomers, people who are homeless, persons with disabilities, children, low-income individuals and families, Indigenous people, racial minorities, seniors, people struggling with substance use, and people with mental illness. Directing services to the unique circumstances of these vulnerable populations within a geographical community can improve accessibility, efficacy, and longevity of outcomes (Chazin and Glover 2017). Community-based organizations are able to implement “the right service in the right place at the right time” (Khanassov, Pluye, and Levesque 2016, 1). This ability is vital to ensure community-based organizations reduce vulnerability to populations at risk (Bhatt and Bathija 2017, 1272).

Barriers to Accessing Community-level Supports and Services

While community-level supports and services help families navigate vulnerable circumstances, multiple barriers exist preventing families from optimally accessing services within their local community. The three main challenges existing within the literature are underfunding, lack of coordination between ministries and organizations, and slow knowledge mobilization (Lasby 2020; Children’s Cabinet Network 2010; Trocme et al. n.d.). These systems-

level gaps exacerbate vulnerability in families who are already experiencing need, as they delay the implementation of evidence-based research within practice. Resultantly, interventions received by families and children are not necessarily the best practices available (Shields and Evans 2012, 254).

The “non-profit starvation cycle” - the chronic underfunding of infrastructure, such as technology, rent, staff training, and fundraising - creates challenges in long-term systems planning for community organizations (Goggins Gregory and Howard 2009). Funded organizations do not sufficiently invest in operational infrastructure because funders have low cost expectations for overhead (Schubert and Boenigk 2019). In turn, when organizations apply for funds and grants, they spend less than they should on infrastructure, yet tend to pay more than the amount reported to funding and grant agencies (Goggins Gregory and Howard 2009). Over time, community organizations are expected to deliver the best available services with less and less funding. Service slowly becomes compromised for a variety of factors, such as unqualified staff, inability to access updated technology, and revenue loss (McCambridge and Dietz 2020). In best cases, the non-profit starvation cycle threatens long-term sustainability; in many cases, the starvation cycle causes community organizations to provide suboptimal services to clients. At times, the non-profit starvation cycle leads to cessation of operations (Lasby 2020, 5).

Uncoordinated approaches to planning and service delivery for organizations that work with families create challenges to access (Friendly 2008, 40). Lack of coordination occurs at many levels: within government ministries, within community organizations, and between policymakers and service providers (Children’s Cabinet Network 2010). Services that promote

healthy families do not necessarily live in one ministry of government. A variety of ministries in Alberta address the concerns of families and children, including Education, Health, Community and Social Services, Children's Services, Mental Health and Addictions, Culture, Multiculturalism, and Status of Women, Indigenous Relations, and Justice and Solicitor General. Yet, these ministries often fail to coordinate efforts that best support vulnerable families. In 2012, the Government of Alberta experimented with ministerial collaboration to address social determinants of health and evaluate the resulting health impacts. Researchers examined the collaboration of the Culture, Multiculturalism, and Status of Women ministry the with Children's Services ministry in providing literacy programs to the children of low-income women (NCCDH 2012, 19). These interventions were proven to be effective. In particular cases, ministerial coordination and collaboration may be necessary to holistically address the unique needs of children and families.

Slow knowledge mobilization is also a well-researched cause of inaccessible, evidence-based services at the local level (Trocome et al. n.d). This challenge is discussed in-depth in the section below. Barriers preventing access to local, evidence-based supports compromises the optimization of service delivery. Subsequently, systems-level failures to provide local, evidence-based services creates vulnerability in families who need services for daily functioning. A potential means of rectifying systems-level causes of vulnerability is through the provision of evidence-based practices in the local community.

Evidence-based Practice Accessibility at the Community Level

Evidence-based Practice

Evidence-based practice combines research, ethics, and practitioner experience to create effective interventions (SWPI 2010). By integrating patient-centredness, expertise, and clinical evidence, the resulting intervention provides best outcomes for clients accessing care (University of Canberra 2019). The aim of evidence-based practice is to provide well-researched interventions to create the best patient outcomes, such as the achievement of improved health or socioeconomic status, an efficient recovery processes, and the sustainability of the treatment or intervention (University of Canberra 2019; Pantaleon 2018, 358). These practices are necessary to inform current comprehensive service delivery standards (Parrish 2018, 407). Randomized controlled trials are considered the “gold standard” research procedure, but different study designs may be suited for particular types of research (Hariton and Locascio 2018, 1).

Evidence-based practices provide the safest, most effective outcomes for families by implementing research within practice, which improves the availability of, and access to, comprehensive services (Henriksen et al. 2005; Kazak et al. 2010, 86). Yet, community organizations often provide children and families with services that lack a substantial evidence-base (Aarons and Palinkas 2007, 411). There is a frequent disconnect between research collection and analysis, and subsequent translation into community-level policies and programs (Salsberg et al. 2015, 1).

Slow knowledge mobilization creates accessibility challenges to best practice for community organizations that serve families and children (Trocome et al. n.d.). While academics, organizations, and policymakers have expressed concern surrounding the research to practice gap for 20 years, the gap persists (Smith and Wilkins 2018, 2). Proposed solutions,

such as practice-based research, are research-forward rather than community engaged (Smith and Wilkins 2018, 2). Yet, community engagement is necessary to implement translational research at the local level (Michener et al. 2012, 285). While plenty of research exists on practices to mitigate social risk to families and children, evidence-based interventions are not swiftly being translated into community-level services due to inefficient knowledge mobilization (Trocme et al. n.d.). The longer the research to practice gap continues, the more it broadens disparities between the intervention received and best practice (Greenwood and Abbott 2001, 277).

Partnerships Between Academics, Community Organizations, and Policymakers

Effective collaboration between academic researchers, community organizations, and policymakers is vital to translate research into community-level, evidence-based policies and programs (CST, 2008). Collaboration in the form of co-creation models prioritizes the input of relevant stakeholders and facilitates the adoption of evidence-based practice within the local community (Greenhalgh et al. 2016, 393). When community organizations contribute to the framing of community-relevant research questions, study design can reflect the realities of daily operation (Greenhalgh et al. 2016, 408). In this manner, the results of locally relevant research inform best practices for local service delivery.

If the goal of research is to create tangible, beneficial impacts within a community, academics should confer participatory capacity upon the target community (Fourie 2003, 33). Yet, despite the beneficial applicability of collaborative research, academics, organizations, and policymakers identify various challenges when engaging in partnerships. Knowledge

mobilization is inhibited by a variety of obstacles, such as silo effects in social policy, political intervention as a habitual response to focusing events, failure to share findings back with community organizations, power imbalances between organizations and researchers, and academic pursuit of traditional research mobilization avenues, such as journal publication or conference presentation (Reardon, Lavis, and Gibson 2006, 3; Jenson and Fraser 2015).

Social programs and policies crafted for particular demographics often do not wholly account for the diverse influences that contribute to social dysfunction. No specific factor leads to poverty, addiction, domestic violence, mental health issues, disability, or imprisonment (Jenson and Fraser 2015). As a result, there is no individual policy, program, or intervention that can effectively target the multiplicity of causes contributing to health and social ills. Many social services do not comprehensively address the diversity of client risk factors. Such failure allows clients to slip between the gaps of distinctive services, as collaboration between fragmented social services are inefficient or nonexistent (Bunger 2010, 385). Social and health problems can also be comorbid, necessitating rehabilitation that requires a suite of services (Jenson and Fraser 2015). Regardless, social policies originate and operate in silos.

Political responses to focusing events contribute to insufficient long-term service-planning strategies (Jenson and Fraser 2015). When interventions are hastily tailored to focusing events, such interventions are often short-sighted (Jenson and Fraser 2015). For instance, Jordan's Principle was forged in response to the death of Jordan Rivers-Anderson, a five-year-old Indigenous child who died in hospital because federal and provincial governments could not determine jurisdictional responsibility for the payment of his home care (Blackstock 2016). Jordan's Principle was crafted to promote the health and safety of Indigenous children,

and to create a child-first policy that dissuaded negative public opinion (MacDonald 2012). While Jordan's death was a salient focusing event, the principle is scarcely enforced due to the narrow definition the federal government historically uses in response to Jordan's Principle applicants (FNCFCS 2017). As a result of tailoring this principle to a singular and specific event, implementation has been scarce, and services for Indigenous children remain challenging to access due to jurisdictional disputes (MacDonald 2012).

Often, policymakers overlook empirical theory and research in favour of focusing events and ensuing public opinion (Jenson and Fraser 2015). Improved partnerships between academics, organizations, and government are imperative to position community-based research, as opposed to focusing events, as a superior catalyst for political action.

Even when policy responds to research, such research is often driven by academia – not the community. Academia is often prioritized in grant models, both in the application to and distribution of funding (Nash 2018). Funding distribution models in conjunction with narrow academic research interests contribute to an unequal power distribution between researchers and participating community organizations (Greenhalgh et al. 2016). Furthermore, researchers generally prioritize academic outcomes over reciprocal relationships with policymakers and collaborative community organizations (Pinto, Spector, and Rahman 2019). When the key priorities for academia include publishing and presenting results, it becomes challenging to translate research into programs with practical applicability within the community. Despite the fact that academic opinions often resonate with government in a way that the opinions of community organizations simply do not, academia is more interested in traditional knowledge mobilization avenues than local community adoption of best practice (Nash 2018).

When research does not translate into policies and programs, it fuels an ongoing degree of mistrust, frustration, and unwillingness to enter into future academic partnerships (Pinto, Spector, and Rahman 2019). Yet, it is necessary for academics to include organizations within research frameworks in order to inform evidence-based service delivery within the community. Furthermore, political inaction results from "ivory tower" research – research that is detached from the practicality of daily life for the purposes of publication in academic journals that are only accessible to other academics (Hoyt and Hollister 2014, 129). Research conducted in this siloed manner prevents translation into practices that families rely upon (Hoyt and Hollister 2014, 129). Policies and programs derived from community-based research can result in the provision of local, evidence-based services (Greenhalgh et al. 2016).

COVID-19, Community Organizations, and Pandemic Preparedness

Coronavirus Disease (COVID-19)

In December of 2019, multiple cases of unidentifiable pneumonia were reported in Wuhan, China (John Hopkins Medicine 2020). Common symptoms included fever, cough, and fatigue, with some patients presenting with aches, throat soreness, chest pain, and shortness of breath (WHO-China Joint Mission 2020, 12). Severe cases included the onset of acute respiratory distress syndrome, organ failure, blood clots, and fatality (Chen et al. 2020, 5). On January 11, there were no known cases of community transmission, yet by the end of January, human to human transmission was documented within and outside of China (WHO 2020a). The rapid spread prompted WHO to declare the novel coronavirus as a Public Health Emergency of International Concern (PHEIC) (WHO 2020b).

The novel coronavirus disease (officially named COVID-19) has spread rapidly around the world since these first cases were documented in Wuhan. Less than month and a half after World Health Organization (WHO) declared COVID-19 as a PHEIC, it upgraded COVID-19's status from PHEIC to pandemic (WHO 2020b). At that point, COVID-19 was present in 114 countries, and there were 118 000 documented cases globally (WHO 2020c). As of June 29, 2020, more than 10 000 000 cases were confirmed in over 180 countries (Johns Hopkins University 2020).

The first case of COVID-19 was documented in Canada on January 25, 2020 (CHCN 2020). Alberta announced its first case on March 5, 2020 (CBC News 2020). Less than two weeks later, provincial cases doubled over the course of a single weekend, bringing the total amount of cases to 56 (Smith 2020). In response to the increase in transmission – which was primarily taking place in the Calgary zone – Calgary declared a local state of emergency of March 15 (Smith 2020).

Calgary remained on state of emergency from March 15 until June 12. During this time, only essential services could continue in-person operations as long as they implemented safety measures to keep workers and customers at an appropriate physical distance (Alberta 2020a). Calgary's state of emergency declaration led to the closure of various facilities, events, public spaces, and institutions, such as daycares, K-12 schools, post-secondary institutions, social services, pools, playgrounds, arenas, libraries, museums, offices, gyms, the Calgary Stampede, and concerts (Alberta 2020a). These closures highly impacted the lives of many Albertans, especially families with young children, small businesses, vulnerable populations who rely upon social services, and workers operating within the aforementioned facilities, events, public spaces, and institutions (Kochhar and Barroso 2020).

Pandemic Preparedness

Pandemic preparedness incorporates general guidelines from central government to suit the specific needs of a particular program, institution, or event. WHO strongly encourages pandemic preparedness because of the unpredictability of pandemic occurrence and the ability for pandemic occurrence to create widespread economic challenges (WHO 2009, 5). While a global-scale pandemic is certainly unprecedented, it was foreseen. General guidelines for pandemic preparedness can be found on government public health webpages, including WHO's *Influenza* webpage, The Public Health Agency of Canada's webpage, Alberta Health Services, and on The City of Calgary's webpage under Public Safety (WHO n.d.; Canada 2018a; Alberta 2014; City of Calgary 2018). WHO recommends all central governments take leadership in providing frameworks for pandemic preparedness, create communication plans to disseminate these frameworks, and coordinate the implementation of the framework across levels and sectors of government (WHO 2009, 11). Private sector pandemic preparedness includes coordination with central government frameworks to create a plan for service continuity that minimizes risk to customers and workers (City of Calgary 2018).

Many countries, provinces, and municipalities have individualized pandemic preparedness plans within the context of health care (WHO 2009, 5). Yet, it is important to extend planning beyond the health sector into public and private spheres to ensure economic planning is in place. Without such readiness, a pandemic will disrupt the social, physical, and economic health of entire nations (WHO 2009, 5). A community-wide approach is necessary to reduce the far-reaching impacts of pandemics.

Pandemic guidelines are intended to provide individuals, businesses, and organizations across Canada with knowledge to engage in service continuity and simultaneously curtail spread (Buccieri and Schiff 2016, 2). Generally, these frameworks include recommendations from WHO, listed in Appendix 1. Alberta incorporated many of these guidelines from WHO and central government into preparedness, response, and recovery planning. Alberta's Pandemic Influenza Plan (APIP) was created in 2014 and has four overarching goals for comprehensive pandemic planning (Alberta 2014, 9):

- Providing individuals, business, and organizations with the appropriate guidelines to minimize disease spread, case counts, and death toll
- Transparently communicating with businesses and organizations to ensure service continuity in order to mitigate social disruption
- Reduction of adverse economic effects
- Efficient and effective allocation of necessary resources, such as Personal Protective Equipment (PPE), during pandemic response and recovery phases (Alberta 2014, 9).

Alberta crafted these guidelines in the spirit of WHO's whole-of-society approach for pandemic planning to help businesses, companies, and organizations engage in service continuity (Alberta 2014, 11).

The Challenges of Pandemic Preparedness for Community Organizations

Adequate pandemic planning must equip institutions and businesses with the knowledge to safely navigate readiness, response, and recovery (Buccieri and Schiff 2016, 2). In addition to communicative disease control, effective pandemic preparedness must also

respond to systems-level and societal factors, such as housing conditions, health care access, and technological infrastructure (Oshitani, Kamigaki, and Suzuki 2008). Yet, government directives often narrowly focus on transmission prevention, which provides insufficient guidelines pertaining to service continuity for businesses, organizations, and infrastructure (Canada 2018). Pandemic preparedness often consists of general guidelines to inform the average Canadian; however, many individuals accessing community services fall through the cracks of standard operating procedures that do not fully address their diverse needs (Canada 2018). Pandemic preparedness must identify the most disastrous service continuity implications and create standard operating procedures to address these implications (Hogan and van Dillen 2020). In some cases, service continuity is not possible.

Service continuity planning is difficult for many community organizations as evidence-based practices, such as counselling, behavioural therapy, rehabilitative services, and newcomer settlement agencies offer in-person services to optimize outcomes (Buccieri and Schiff 2016, 59). Furthermore, there are organizations that inherently must deliver services face-to-face, such as women's shelters, homeless shelters, and addiction treatment centres. While some of these interventions, such as counselling, have literature to support implementation of evidence-based practice, many service providers were unfamiliar with digital modes of delivery prior to COVID-19 (Torous et al. 2020, 4).

Digital delivery is not widely considered best practice. Telerehabilitation, teletherapies, and teleprogramming are very new fields of telemedicine that do not have large evidence bases (Peretti et al. 2017). The little research that exists shows both advantages and disadvantages to digital service provision. Advantages include the ability to reach clients in remote areas,

convenience in client scheduling, and cost-effectiveness for providers (Novotney 2017). Yet, disadvantages may compromise the quality and spirit of services, including the lack of face-to-face content with a provider, non-optimization of service due to capacity constraints, and ethical considerations (Peretti et al. 2017). There is a need to further investigate both the advantages and disadvantages of digital service provision, as much of the research that does exist has yet to be translated into evidence-based practice (Meredith, Firmin, and McAllister 2013, 47).

Combined with an inability to access services needed for daily functioning, identifiable stressors, such as pandemics, exacerbate social vulnerabilities in populations that are already at risk. Streamlining services to suit the needs of an average urban citizen fails to effectively prepare the whole of society for short and long-term pandemic effects (Canada 2018). Past local emergencies, such as the 2013 Alberta floods or the 2017 British Columbia wildfires, have highlighted the disproportionate effect of public emergencies on vulnerable families (Drolet, McDonald-Harker, Lalani, & Tran 2015, 57; Canada 2010, 4). Previous pandemics, such as the 2009 H1N1 pandemic, have demonstrably intensified pre-existing vulnerabilities in identifiable demographics such as Indigenous populations (NCCAH 2016, 8). When vulnerabilities are exacerbated by inherent risk factors and service access barriers, certain populations face disproportional threats to ill health, including disease contraction (Buccieri and Schiff 2016, 2).

While the COVID-19 pandemic has created global effects, pandemics certainly "create the most serious hardships for those who already face the most serious hardships" (Uscher-Pines et al. 2007, 32). Pandemic readiness, response, and recovery must be conducted from an

equity standpoint in order to address the unequal impact of pandemics on these vulnerable citizens (Blickstead and Shapcott 2009, 2).

Impact of COVID-19 on Local Community Organizations and Service Provision

Sound pandemic planning for community organizations requires partnership with all levels of government to create plans that guarantee evidence-based service continuity (Canadian Red Cross 2007, 5). For local community organizations in Calgary, COVID-19 iterated unremedied gaps in collaborative emergency planning made apparent by the 2013 floods, such as insufficient social infrastructure to address mental health and trauma, as well as severity of impacts on citizens who were experiencing vulnerability prior to the flood (MNP 2015, 31).

For instance, Stage 1 of pandemic recovery in Alberta took place from May 14th, 2020 until June 12th, 2020. Disability service providers were given the opportunity to re-open under Stage 1 of Alberta's re-launch, but disability sector-specific guidelines from the Government of Alberta were not released until June 8th, 2020 (Alberta 2020b). Community and recreation facilities, infrastructure that hosts a variety of social programs in Calgary, were permitted to re-open in Stage 2, on June 12th; however, guidelines pertaining to safe operations of indoor recreation were only posted on the Government of Alberta's website on July 20th, 2020 (Alberta 2020b). Due to the delay in release of specific guidelines, community organizations were responsible for collecting guidelines from their governing bodies and incorporating these guidelines within general COVID-19 guidance to operate programs if they felt safe to do so.

As a result, many local organizations offered mixed service delivery models, or re-structured services to digital programming. The Mustard Seed, a charity providing emergency

shelter, meals, clothing, and hygiene to people experiencing homelessness, continued to provide essential services to Calgary's most vulnerable throughout the pandemic (The Mustard Seed 2020a). The Mustard Seed safely stayed open to provide emergency shelter, food, and hygiene supplies by increasing sanitation procedures, by creating secondary shelter locations to adhere to physical distancing guidelines, and by placing capacity limitations on visitors to the building (The Mustard Seed 2020a, The Mustard Seed 2020b). However, the Mustard Seed also provides services such as counselling, but digitally restructured these services to reduce physical presence within the building (The Mustard Seed 2020a). Other types of programs in Calgary, such as early childhood developmental/behavioural supports, or child therapy services, have been modified as virtual lessons or phone conversations (Lead Foundation 2020). Similarly, the Calgary Counselling Centre (CCC) began conducting therapy online or over the phone after Calgary declared state of emergency on March 16th, 2020 and is maintaining this method of service delivery in the best interest of staff and clients (CCC n.d.).

Some organizations have had more success with virtual program provision than others. As mentioned previously, digital service provision is still an incredibly new topic within gray and academic literature. Community organizations were left to independently figure out evidence-based service continuity due to lacking pandemic preparedness guidelines unique to service provision (Grogan and Sawatsky n.d.).

Policy and Program Translation Throughout COVID-19

Throughout the duration of the pandemic, the Government of Alberta has implemented a variety of policies and programs to support community organizations. In April, the Government of Alberta announced $30 million of available funding for civil society, and an

additional $5 million for food banks (Alberta 2020c). $9 million of the $35 million was allocated to Calgary Family and Community Support Services for dispersion (Alberta 2020d). On April 21st, the Government of Alberta stopped accepting applications, and dispersed funding to 460 of 600 organizations who were able to apply for the emergency funds (City of Airdrie n.d.). No additional funding was released from the government for organizations servicing children and families outside of this allocated $35 million.

Besides increasing funding, the Government of Alberta has also procured PPE for vulnerable populations. Disability service providers do not have to source or finance their own PPE and can have PPE delivered by the province by filling out a request form (Alberta 2020e). Similarly, the Government of Alberta will procure and distribute non-medical masks, hand sanitizer, and thermometers to schools before commencement in September (Alberta 2020f). These policies ensure PPE is provided to people who may not have the disposable income to access masks independently, reducing vulnerability in the context of transmission.

It is not clear whether the policies provided throughout the pandemic to promote healthy families are evidence-based. In fact, the recency of COVID-19 and impacts, combined with slow knowledge mobilization, implies evidence-based practices are not yet available. While the Government of Alberta has released a series of sector-specific guidelines, these directives have been delayed as they relate to sector ability to re-enter the economy. In addition, these sector-specific guidelines have been criticized for lacking comprehensive considerations needed necessary to promote resumption of in-person service delivery (Kaufmann 2020). Due to the speed at which they were released, it is unlikely these guidelines were informed by consultation and evidence.

Past pandemics such as H1N1 have exposed a lack of evidence-based research pertaining to pandemic planning (Lipsitch et al. 2011). The evidence available in the literature largely addresses best practices to reduce infection rates and lacks specific focus on structural inadequacies. Resultantly, policymakers have limited data, which means policies are a patchwork of environmental scans, previous strategies, and intuition (Dissanayake 2020).

Purpose of the Study

COVID-19 has highlighted pre-existing policy-level and systems-level gaps within non-profit, community, and social service sectors. Adequate, collaborative pandemic planning can provide community organizations with the tools they need to engage in service continuity and reduce overall societal harm. Partnership between government, community organizations, and academia has the potential to mobilize research into evidence-based practices more quickly to support service continuity throughout the pandemic, and ultimately, support vulnerable families.

To support swift knowledge mobilization that pertains to health families, there is a need to articulate the barriers community organizations have encountered in their pursuit to service clients with evidence-based practices during the pandemic. It is necessary to develop an understanding of how community organizations would like to interact with government and how research can help organizations catalyze evidence-based practice into policies and programs. This project addresses pre-existing gaps in knowledge mobilization through analysis in an acute COVID-19 context. The project explores barriers to evidence-based service provision in the community throughout COVID-19, as well as solutions that may mobilize research-to-

practice more quickly. The articulated responses will inform policy recommendations surrounding effective partnerships between community organizations, academia, and government. Ultimately, this project provides solutions that reduce vulnerability in families who rely on local community organizations to optimize daily functioning.

Methodology

This project (REB 20-0002) received approval from the Conjoint Health Research Ethics Board (CHREB) after review and revision of purpose, design, methodology, and procedures.

Focus Group Design

To develop a comprehensive understanding of the perspectives and priorities for vulnerable families, five focus groups were undertaken virtually July 14th, 2020 until July 22nd, 2020. Using Zoom videoconferencing, the participants' names were changed to numbers in order to protect their identities from one another. To maintain consistency, all present participants were asked to have cameras on, or cameras off. Two of the groups were conducted with all participants' cameras off, while three groups were held with participants' cameras on.

The Nominal Group Technique (NGT) was used to structure the focus group. The NGT is a consensus method used to determine priorities across a particular demographic (McMillan, King, and Tully 2016). First used by Van de Ven and Delbecq, the NGT identifies critical problems faced by participants in relation to a research question, elaborates on and clarifies meaning, and parses out the most critical problems faced by a particular demographic (Van de Ven and Delbecq 1972, 341). This methodology offers unique advantages best suited to the

research objectives. Firstly, the NGT is highly structured in a way traditional focus groups are not, which negates potential dominance from one or multiple participants (Khayatzadeh-Mahani et al. 2019). The structure additionally ensures each participant gets equal say to offer contributions around the research question. As well, the NGT concludes with a ranked list of preferences immediately available for participants to view, which can validate personal experiences, thoughts, and feelings (Khayatzadeh-Mahani et al. 2019; McMillan, King, and Tully 2016).

The use of NGT methodology encouraged participants to generate a variety of ideas surrounding service provision throughout the pandemic without unequal contributions due to power imbalances within the group, and without fear of offering an opinion that potentially differed, as stakeholders were quite diverse. The primary researcher used an adapted form of the NGT which included five stages: silent generation, round robin, clarification, categorization, and ranking. This adapted NGT was facilitated by the lead researcher.

In the first stage, the primary researcher allotted participants ten minutes to brainstorm ideas surrounding evidence-based service provision throughout COVID-19. In silence, participant noted as many ideas as possible. Next, in the round robin stage, the researcher asked participants to concisely share their ideas, in turn. The researcher recorded these ideas in a word document, which was screen-shared for all participants to view. Participants only offered up novel contributions or perspectives to items listed on the word document. In stage three, clarification, participants discussed their opinions and experiences with the listed items and elaborated in areas that necessitated clarification. Next, participants and the researcher categorized the listed ideas by thematic concept, ensuring all listed items could be sorted into

one of the created themes. In the final stage, ranking, participants used the private chat function on Zoom to individually send the researcher a list of fives themes, ordered from five to one, with five points reflecting their first preference, and one point reflecting their fifth preferences. The researcher then concluded this stage by summing all scores, revealing the rankings of each theme, and providing the participants with immediate feedback on their collective contributions.

Recruitment

Researchers recruited participants from a variety of networks using both purposive and snowball sampling. Purposive sampling was employed by extending study materials to 47 people working within the disability sector, as well as 44 people representing diverse organizations in Calgary. The latter contacts were provided by a co-supervisor and were forged through working relationships as well as past experience participating in this area of research. Snowball sampling was also used as the researcher welcomed participants to extend study information and recruitment materials to anyone expressing interest within their respective networks.

Analysis

All NGT groups were held over Zoom videoconferencing. The focus groups were recorded and were saved locally to the researcher's computer for future analysis, as well as the meeting notes. The researcher coded the raw data to corroborate the themes generated by different participants across all NGT groups. Traditionally, NGT groups are not transcribed as

the raw data provides a thorough summary of the themes reflected upon by participants (McMillan et al. 2014). However, in this case, the researcher did transcribe audio recordings verbatim to contextualize the themes prioritized by participants during the NGT groups. As the NGT inherently generates themes in the ranking stage of the methodology, the transcripts were used to add perspective and context to participant themes. All themes reflected opinions and experiences surrounding pandemic preparedness and evidence-based service provision in the context of COVID-19. The generation of themes were similar across all five focus groups.

Results

Participants

Recruitment letters were sent to all 91 contacts, with 24 of these contacts returning consent forms and participating in the focus groups. The five focus groups took place on five different days with scattered time slots. Due to the context of the pandemic and the uncertainty it has introduced into daily schedules, participants assigned themselves to the focus group that worked best with their personal schedules. The average length of the NGT groups was 2 hours, 1 minute, and 46 seconds (min: 58 mins and 4 seconds, max: 2 hours, 45 mins, and 20 seconds).

In total, 24 participants attended the virtual NGT groups. The majority of participants were female, as 21 female participants and 3 male participants attended the virtual NGT groups. Participants were diverse, and consisted of front-line service workers, executive directors, research specialists, program leads, strategists, and coordinators. All participants represented numerous organizations within Calgary, with focus on areas such as youth

homelessness, domestic violence, poverty, disability, early education, newcomers, mental health, addiction, and rehabilitation. Participants' experience in the non-profit and social service sector ranged from a few months to over 20 years. All participants drew upon personal experiences with vulnerable families to brainstorm and discuss challenges and solutions surrounding service delivery throughout the pandemic.

Barriers to Evidence-based Service Provision Throughout COVID-19

Across NGT groups, the following four themes were consistently prioritized as the three most pressing barriers to evidence-based service provision by local organizations: reduced revenue streams, transition to online service delivery, and inadequate communication and collaboration with government. Each of these barriers can be further analyzed more intricately. The themes and subthemes can be reviewed in Table 1 below and will be elaborated upon throughout this section, which explores how these themes left families vulnerable throughout the pandemic.

Barrier Themes	**Barrier Subthemes**
Reduced Revenue Streams	• Funding and Grant Focus • Funding Structure • Income Loss
Transition to Online Service Delivery	• Access to Hardware and Software • Digital Literacy • Staff Capacity
Inadequate Communication and Collaboration with Government	• Insufficient Guidelines • Lack of Sector-specific Guidelines • Inconsistencies Between Health and Regulatory Bodies

Table 1: Barriers Themes and Barrier Subthemes

Reduced Revenue Streams

Participants identified a variety of concerns surrounding reduction in revenue streams stemming from three different areas: short-term funding and grant focus, funding structure, and income loss. Because of reduced revenue, organizations are limited in their ability to provide evidence-based services to existing and new clients. This theme was identified by participants as the category of highest priority across all five focus groups. The four areas contributing to reduced revenue streams for community organizations throughout COVID-19 are discussed below.

Funding and Grant Focus

According to participants, the pandemic has created an emergency funding and grant focus that carries implications for long-term sector sustainability. Participants described funding as short-term, with many funding and grant agencies prioritizing COVID-19-specific programming over long-term programming and planning. These specific priorities may not always align with organizational and staff capacity needs as funding is not exclusively or readily available for long-term planning needs such as service continuity. Additionally, participants noted there has been a lack of supply-side funding provided during the pandemic. Because COVID-19 rendered worldwide economies inactive, the supply-side shock has been answered by demand-side compensation. However, participants reported programs such as CERB (Canada Emergency Reponses Benefit), CEWS (Canada Emergency Wage Subsidy), and CESB (Canada Emergency Student Benefit) do little for community-based organizations who need to fund daily operations beyond the impacts of COVID-19.

While COVID-19 has certainly introduced the need for funding to support digital service provision, work from home operations, to procure PPE and to provide staff with sick days to self-isolate, there are still funding needs within social and community services beyond needs related to COVID-19. Yet, many funders and grants are awarding dollars to community-based supports within a COVID-19 context. Participants noted funding focus in the following areas:

- The transition of service provision to virtual platforms or to a physical distance
- The creation of new programming that specifically addresses the challenges clients face throughout the pandemic
- The recruitment of volunteers to ease staff capacity
- The launch of public awareness campaigns that pertain to COVID-19 (Canadian Red Cross 2020).

Many participants expressed concern regarding what the emergency funding focus implied for sector sustainability, and for their ability to comprehensively reach new and existing clients with the evidence-based practice they rely upon.

Funding Structure

In addition to the focus of funding and grants, participants described challenges to evidence-based service provision caused by insufficient coordination of funding, universal lags in receiving funds, and competition for funding between organizations. Some participants noted a lot of COVID-19-specific funding was available for community organizations but lacked coordination between government departments and funding agencies. For instance, disability service providers in Alberta can request PPE from the following sources: The Persons with

Developmental Disabilities (PDD) program, the Provincial Operations Centre, a Federal Supply Hub, ATB Nexus, and Rapid Response Platform Canada (Alberta n.d., Alberta 2020e, Alberta 2020g). However, some of these procurement strategies are no cost, while others require a fee. It is not particularly clear which agency service providers should apply to. Confusion surrounding funding sources creates unnecessary delays in getting funding to community organizations during a time of great need. Such confusion also taxes staff and organizational capacity, as this capacity is misallocated toward grant proposals and funding applications.

In addition to the lack of coordination between levels of government and funding agencies, participants mentioned lags in timely delivery of funds. Multiple participants quoted a waiting period of six to eight weeks for funding delivery. Alberta's rapidly changing recovery phases are characterized by the relaxation of COVID-19 specific rules and regulations. Due to time lags in receiving funds, organizations have encountered difficulty securing the funding they apply for to provide services in the context of a particular recovery phase.

Many participants also spoke about the way funding structure creates competition between community-organizations, ultimately thwarting a client's ability to receive the best services to meet their needs. Indeed, financial stress may be a contributor to increased stress for community-based organizations. Combined with temporary project-based funding from government and private funders, community organizations feel pressure to compete with one another for funding and grants (Scott 2006, 28). As one participant said:

> *"I think that when we're in financially hard times, we get very territorial as organizations. I think that we get worried, and I think that we don't play nice together.*

And I think that when we don't play nice together, we don't share resources, we don't share support, we don't team up together, and then we don't support each other."

In a stressful context, such as a pandemic, community organizations may be fearful about losing clients and thus losing revenue. Organizations may be hesitant to recommend other programs or services their clients may benefit from out of fear of losing that client to another organization. Ultimately, this reduces the client's ability to access programming that would optimize their outcome.

Income Loss

Participants representing community organizations experienced overall income loss due to a variety of pandemic-related factors; namely, participants spoke about an inability to fundraise, client hesitation to access virtual services, and a loss of direct billable hours. Fundraising efforts often consist of in-person activities, such as door-to-door campaigning, galas, charity auctions, raffles, and walks or runs. Physical distancing requirements have postponed these types of group fundraising events since state of emergency was declared in mid-March. These requirements have reduced voluntary participation and donation in virtual versions of these events, such as virtual walk run events.

Participants described additional income loss due to client hesitation to use restructured services. While some participants noted that digital service provision has made services more accessible than ever, others described new methods of service delivery as a barrier to continuing or beginning services from a client perspective. Some of this hesitation was said to result from privacy and confidentiality concerns. Clients who live in close quarters with other

family members are unable to access services confidentially. Other members of the family may be privy to hearing conversations between a client and a service worker. For instance, if an individual lives in a two-bedroom apartment with others, that individual lacks the privacy to engage in virtual programs confidentially. Other participants described hesitation in accessing virtual services due to client perspective of virtual service efficacy. As one participant noted:

> *"Data, in many ways, supports tele-practice… But there's still a perception it's a "less than" service. So, I'd like to know to what degree it is, or isn't."*

Participants in all NGT groups reported a desire of clients to return to in-person services and reported that clients expressed reduced interest in accessing virtual services due to privacy and efficacy concerns.

Participants also cited reduced direct client hours, which causally reduce funding or billing for one-on-one hours. For instance, one participant described changes in funding eligibility for a skills training program offered by their organization. This particular program received funding for staff and materials. However, because this program was in-person, the organization lost funding for its implementation. Other organizations that bill direct hours experienced a decrease in these hours resulting from the transition to online service delivery. In some cases, these service hours remain decreased depending on the type of service provided. For clients receiving intensive therapies, service hours could not be provided as rigorously through online platforms. In this manner, restructured forms of service delivery have changed funding for direct hours, as well as ability to bill hours.

Transition to Online Service Delivery

With Calgary's declaration of state of emergency, only essential services were allowed to keep physical premises open. While some community organizations, such as food banks and emergency shelters, were deemed essential, most participants in this study needed to close their doors to clients. All of these participants engaged in service continuity through online delivery platforms, such as Zoom and Google Hangouts. Participants encountered challenges to restructuring services due to access to hardware and software, digital literacy, and staff capacity.

Access to Hardware and Software

Multiple participants made the distinction between access to hardware and access to software to emphasize that both are necessary for program participation. Participants explained that having one device for a family does not suffice in the context of virtual service provision. To maintain appropriate levels of service, it is essential that families have more than one device per household. If both parents require computers to effectively work from home, their children will need personal computer or iPad to complete school and attend programs during workday hours. However, not all families can afford multiple devices for parents and children, despite the fact that access to hardware is currently a prerequisite for participation in the community.

Even if families do have sufficient hardware within the home, software access poses an additional problem to client participation. A few participants raised concern around wireless internet access challenges for clients living in rural and remote areas. Despite owning devices,

client connectivity issues may create a barrier to meaningful engagement. Further, even in urban areas, entire families rely on the same wireless connection to complete work, to attend school, to speak with friends and family, for entertainment, and for program access. Families may lack the gigabyte usage to allow all members of the household to adequately engage in work, school and other activities.

Digital Literacy

Alongside access to hardware and software, clients and staff need to be equipped with technological comprehension and comfort in order to access services. A few participants spoke about the "digital divide" – a divergence between those who can access and use technology, and those who cannot – as a challenge to evidence-based service provision (Bezuidenhout et al. 2017). While historically this term has described those who have access to hardware and software, and those who do not, participants noted the definition of "accessibility" has developed beyond physical accessibility. In our digital age, many people have access to hardware and software, but are not necessarily comfortable with technology. Participants reported that access to technology includes physical access to hardware and software, as well as technological competency. Participants identified that particular demographics were more likely to require skill-building for digital literacy. These demographics included seniors, newcomers, low-income families, and people living in rural, remote, and Indigenous communities. To obtain optimal outcomes from current services, clients do not just need access to technology; they also require skills to effectively engage with a novel digital world in the context of COVID-19.

Clients may feel more comfortable with digital service provision if staff are digitally literate and well-versed in the ethics of digital citizenship. Participants identified digital literacy and citizenship as necessities for staff. Many staff have needed to transition to digital service delivery, which has favoured younger, digitally literate staff. Participants identified a need for organizations to be patient with staff, and perhaps alter performance evaluations for staff who experience greater challenges navigating digital service provision.

Organizations also need to incorporate digital citizenship into staff training as it is now the primary method of service delivery. Digital citizenship encompasses elements such as digital rights and responsibilities, consideration of digital risks, and digital privacy and security (Ribble 2015, 17). Clients may feel more secure and protected accessing digital services knowing staff have codes of ethics in place guiding digital responsibility. Without translating core concepts underlying many evidence-based practices to technological realms, such as consent, confidentiality, and anonymity, clients may feel as though their security is in jeopardy. A perceived loss of privacy and security may deter service access.

Staff Capacity

Participants reported challenges with staff capacity that pre-existed COVID-19 and impeded comprehensive delivery of evidence-based services. However, these challenges have become amplified as a result of the pandemic. Participants noted unique staff challenges relating to technological service provision resulting from COVID-19 impacts. These concerns included availability in staffs' schedules, and the need for staff to re-invent service delivery.

Some participants spoke to the impact of changes to staff scheduling on their ability to deliver virtual services to clients. COVID-19 has altered the work schedules of many staff members, especially those who have dependents and children requiring care during work hours. Participants reported that service delivery is not always flexible outside of work hours, and that COVID-19 has highlighted difficulties for staff who are balancing childcare with work. Yet, with the move to technological service provision, staff have needed to juggle parenthood and work simultaneously. Work from home requirements impeded staffing availability, and subsequently, client access to their familiar service workers.

Other participants describe staff exhaustion from using capacity to re-invent service provision in a way that resonates through virtual platforms on tight timelines. As agencies rapidly needed to change their mode of service provision to meet client needs, staff and agency needs became an afterthought. Staff who consistently prioritized client need above their own were vulnerable to burnout. Some of this burnout, participants stated, stems from the need to take in-person services and directly translate the lessons and meaning behind these services onto virtual platforms. As two participants illustrated:

> *"I have to re-imagine, "what is this thing that I'm trying to teach you? What am I trying to get you to learn? What are the other ways that I could get you to learn that? How can I then do that within this virtual platform?"*
>
> *"The cameras we have right now are so static, and delivery with children is often very dynamic."*

Other participants noted staff do not have experience with creatively re-structuring service delivery. Organizations may not have staff with the skills to take in-person content and

deliver the same message through virtual services. If organizations lack the staff capacity to translate face-to-face, evidence-based services onto online platforms, families may not be receiving the services they need to optimize outcomes.

Inadequate Communication and Collaboration with Government

Three notable areas factor into participant concern surrounding inadequate communication and collaboration with government. Participants cited insufficient guidelines, lack of sector-specific guidelines, and inconsistencies in advice from health and regulatory bodies as areas contributing to confusion surrounding practice implementation. As a result of ambiguities in protocols and procedures, organizations have been hindered in their ability to craft health and safety guidelines essential to their re-opening.

Insufficient Guidelines

When asked about current barriers to providing evidence-based practice in this stage of Alberta's recovery, participants cited multiple inadequacies within government guidelines as an obstacle to re-opening physical premises. This included vagueness, inaccessible language, fluctuation, clarity, redundancy, inconsistency, English-only instructions, lack of transparency, and lack of support from government. Messaging was often too broad to be adapted to organizations' needs and appeared in language that could not be easily understood by clients and families. As well, these guidelines changed rapidly as Alberta moved through recovery stages in ways that did not make staff and families feel safe. Most participants did not feel comfortable implementing the guidelines provided by government and did not know who to

contact to clarify aspects of the guidelines in order to suit the unique needs of their staff and clients. Confusion surrounding how to safely return to in-person services prevented return from occurring.

Lack of Sector-specific Guidelines

For many organizations, general COVID-19 health and safety guidelines did not fit client, staff, and service needs. Participants observed the lines between response and recovery phases of pandemic planning had become blurred, with many participants providing services the same way since March. Mostly, the decision to continue virtual service provision stemmed from a lack of sector-specific considerations. Some participants noted that sector-specific guidelines were only released weeks after a new phase, despite getting approval from government to re-open physical spaces. As previously mentioned, disability service providers were approved to re-open under Stage 1 of pandemic recovery but did not receive sector-specific guidelines for three weeks following the commencement of Stage 1.

Participants also indicated that sector-specific guidelines were not comprehensive enough to consider the unique needs of clients served by community organizations. For disability service providers, guidelines received from government also failed to consider key barriers to persons with disabilities in relation to re-entry. For instance, the government recommendations for disability service providers include physical distancing between staff and clients with disabilities (Alberta 2020b). This recommendation does not wholly account for the hands-on support these clients require. Participants expressed that incomprehensive, sector-specific guidelines were impeding their return to in-person, evidence-based service provision.

Inconsistent Advice Between Health and Regulatory Bodies

Some participants discussed messaging provided by their regulatory body contradictory to government guidance, causing confusion about proper health and safety protocols. In some cases, regulatory bodies seemed to be attempting to adapt government guidance to the unique situations of community organizations. In other cases, regulatory bodies did not provide timely updates to the guidance issued to organizations. The end result, in both situations, was a delay in provision of crucial information for organizations, and ultimately, a delay in resumption of evidence-based services. As one participant described:

> *"We got a set of directives from Alberta Health Services, and a set of directives from Children's Services. They didn't always match, and I found it took a while for Children's Services messaging to catch up and align with Alberta Health Services. So, then we were in an awkward position of 'well, which one do we follow?'"*

Solutions to Evidence-based Service Continuity

In addition to discussing barriers preventing organizations from providing evidence-based services during the pandemic, participants were also asked to brainstorm solutions to collaborate with policymakers and address these barriers. Two key themes emerged from discussion with participants: person-centred policies and programs, and reciprocal collaboration. Both of these themes are deconstructed in Table 2 and discussed in depth below.

Solution Themes	Solution Subthemes
Person-centred Policies and Programs	• Equity-lens for policies and programs • Evidence-based policies and programs
Reciprocal Collaboration	• Intragovernmental collaborations • Sector Alignment • Reciprocal Partnerships Between Academia, Community organizations, and Policymakers

Table 2: Solution Themes and Solution Subthemes

Person-centred Policies and Programs

The prioritization of person-centred policies and programs instead of economic activity may provide community organizations with the support they need to reduce client vulnerability. Many participants agreed that, at the onset of COVID-19, the government released numerous person-centred policies and programs to quickly help people experiencing need. For instance, participants saw CERB as a person-centred program, as government acted swiftly to get funds to people who lost their job in the economic shutdown. However, participants also observed that messaging began to change as the economy started to re-open, and priorities shifted toward economic ignition and away from person-centredness. The two overarching solutions proposed by participants to uphold person-centredness included the use of an equity lens to craft policies and programs, and the implementation of evidence-based policies and programs.

Equity Lens for Policies and Programs

Participants in all five focus groups emphasized the way COVID-19 as exacerbated

existing structural gaps. Many participants expressed that intersectional approaches were necessary to mobilize equitable recovery. Some participants acknowledged that a blanketed approach to recovery would likely intensify pre-existing social and economic inequalities. When asked to elaborate on operationalizing equitable policy as a solution, one participant said:

> *"Understand[ing] that different groups have different, unique needs.*
>
> *And to really understand that, instead of just providing a 'one-size-fits-all.'"*

Participants spoke about great need for representation and consultation when crafting policies and programs that directly affect identifiable, vulnerable demographics. Such consultation must include sufficient representation from communities experiencing need. One participant stated this consultation should be the underlying value guiding government engagement, as it will ensure equity is the underlying value of service provision.

Community organizations service diverse populations who experience need differently. A variety of policies and programs are necessary to uphold equity. Client circumstances intersect in a variety of ways with distinguishable structural disparities. An equity lens is necessary to create policies and programs to help clients navigate deleterious impacts of intersectionality throughout the pandemic.

Evidence-based Policies and Programs

Participants expressed the need for evidence-based policies and programs to create a person-centred approach that mitigates the pandemic's impact on client outcomes. Some participants described a lack of evidence-based policies as the biggest hurdle to person-centred service provision. Participants suggested open access to publications and research, as online

access to peer-reviewed journals is often exclusive to other academics. Participants also noted, however, that the COVID-19 pandemic is unprecedented. The novelty of this pandemic's impact means an evidence-base does not exist for community organization COVID-19 preparedness, response, and recovery. To address this, a participant suggested releasing white papers (concise government reports about contemporary, complex issues) alongside other emergency preparedness research to situate past policy and program recommendations within the current context. Many participants expressed that policies and programs based in objective research, rather than ideology, would help support community organizations and clients.

Reciprocal Collaboration

Almost every participant supported bidirectional collaboration as an ideal way to interact with government and best support clients. Such collaboration was described as necessary between government departments, between community organizations, and between community organizations as well as policymakers. Multiple participants also described academia as a necessary contributor to these partnerships in order to bring evidence-based practices to fruition. Participants acknowledged collaboration within and between community organizations, government, and research as an effective way to provide best outcomes for clients and families.

Intragovernmental Collaboration

Participants commonly mentioned a lack of collaboration between ministries as a barrier impeding evidence-based policy and program provision and proposed

intragovernmental collaboration as a solution to redundant and inconsistent guidelines. While participants noted COVID-19 had increased intergovernmental communication between municipal, provincial, and federal levels of government, they also expressed provincial ministries had become more fragmented. One participant speculated the silo effect stems from competition created by top-down funding allocation.

> *"I think even from a systemic level, the fact that Education doesn't talk to Health who doesn't talk to Community and Social Services in times like this is really ridiculous. And I think they have siloed more during this time because dollars matter."*

Participants iterated that all ministries addressing the concerns of families and children must collaborate to best support outcomes for this population. A holistic, comprehensive, family-centred approach would maximize the coordination of programs that service children and families.

Sector Alignment

Participants revealed dissatisfaction with the fragmentation of local community and social services and expressed a need to form a united front when interacting with government. Participants reported the lack of cohesion contributed to difficulties in efficiently communicating to the appropriate area of government, to redundancy in communication with government, and to a "watering-down" of a consistent voice. For instance, one participant talked about the numerous working groups and task forces formulated during COVID-19. She expressed the objectives of many of these groups were likely repetitive and may lead to redundant interactions with policymakers. Many participants identified a need for efficient,

cohesive feedback to policymakers in a way that encompasses sector concerns without repeating priorities. One participant mentioned that a sector-wide lobbying mindset may help organize sector aims and streamline communication to the appropriate ministry or level of government. Across all NGT groups, participants spoke to a need for unity in consultation with government.

Participants also revealed a need for organizations to support one another during challenging circumstances. A variety of participants noted that some organizations had re-opened, while others still felt unsafe to do so. Participants reported sharing information on safe re-entry protocols, screening tools, cleaning procedures, PPE requirements, and physical distancing requirements would be of help to other organizations. One participant suggested a platform for community organizations to open-source creative methods of service provision, effectively providing innovate ideas to other organizations. Supporting one another during uncharted times was identified as a way to promote organizations' safety, staff safety, and resultantly, client safety.

Reciprocal Partnerships Between Academia, Community Organizations, and Policymakers

Most participants reported a great need for a formal mechanism to promote research-based, community agenda setting. Participants said that ideologies such as "open door policies" did not suffice in promoting transparent partnership between government, community organizations, and academia. Many participants identified that collaboration with government was often ineffective due to an inability to provide direct, streamlined feedback to policymakers. One participant noted service provision would likely improve if there were a

professional way to “funnel advice” back to policymakers after the implementation of political and social guidelines. This participant emphasized that there was a need to provide feedback to government about policy and program implementation, in terms of what is effective as well as what is ineffective.

A few participants mentioned the need for real co-design solutions that involved community organizations, government, academia, and funders. Participants used terms such as “equal”, “bidirectional”, and “transparent” to describe the ideal dialogue to characterize these partnerships. Participants stressed the need for thorough community engagement where all voices contributing are weighted equally. Many of the participants who offered this idea spoke to a lack of public trust, and a need for trust-building in relationships to eradicate power dynamics from reciprocal partnership.

A few participants identified the information being released by government as it pertains to children, families, and service provision throughout COVID-19 has been abundant and non-cohesive. These participants also reported families have been confused about where to locate the best guidelines to suit their circumstances. The creation of a localized webpage containing all guidelines for service provision for families and children was suggested as a means of easing this overwhelm. Participants proposed this localized, online platform consist of government recommendations and guidelines, as well as research promoting evidence-based service provision during the pandemic. In this manner, families and organizations may have an easier time locating critical information as it relates to their unique circumstances.

Discussion

Findings

The major themes uncovered in the research, as they apply to barriers to evidence-based service provision, included reduced revenue streams, access to technology, and lack of collaborative communication within and between ministries, as well as sectors. Proposed solutions to these barriers included person-centred policy and program approaches and reciprocal partnerships. Holistic, family-centred approaches have long been proposed as a remedy to systems-level disparities, and subsequently, as a remedy to familial vulnerability. Many of these themes were extensively discussed in the literature.

Revenue has been cited as a barrier for organizations preventing evidence-based service provision (McCambridge and Dietz 2020). In particular, insufficient funding from agencies and government is a common concern for long-term sustainability of organizations and program provision. Participants noted that funds can be insufficient for a variety of reasons, including focus, structure, reporting requirements, and resource dependence. Many participants noted that funding and grants fail to cover operational support. These concerns can be explicated by the literature, as they pre-exist COVID-19.

While funders may be willing to provide dollars for direct service delivery, organizations have always experienced challenges in financing infrastructure and core operations, thus restricting growth capacity (Geofunders 2015). Community organizations report reducing overhead spending to qualify for funds and grants that do not offer adequate support for operational costs (Goggins Gregory and Howard 2009). As applicants to funders, community organizations must either reduce or underreport overhead spending to qualify for grants.

During COVID-19, funding has shifted further away from covering indirect costs, forcing organizations to tax staff and agency capacity. Such a shift negatively impacts program provision and planning, ultimately costing the beneficiaries of services.

Participants reported applying to a variety of funding sources and grants due to short-term funding contracts, which is referred to as a “piecemeal” approach to funding in the literature (Porter and Kramer 2002). This short-term funding focus creates concerns surrounding sustainability. Participants noted that, amidst the pandemic, almost all funding has been provided on short-term contracts without knowledge of renewal due to a collective, sector-wide experience of need. The structure of funding, to this extent, prevents long-term systems planning that promotes best outcomes for clients.

The literature also mirrors participants’ concerns surrounding inadequate funding availability during times of financial stress, impacting client ability to access services in times of greatest need. Challenging economic circumstances leave community organizations to compete for the same pool of limited funding resources (Landes Foster, Kim, and Christiansen 2009). A depleting funding pool corroborates with cuts or curtailments of services that people rely upon for daily functioning (Maddox 1999).

In the context of COVID-19, access to technology was introduced as a challenge impeding organizations’ ability to support families. This theme did not appear directly within a pandemic context within the literature, as the emergence of tele-practice for all forms of service provision is a novel externality of COVID-19. Much of the research concerning digital access and literacy relates to healthcare. However, healthcare literature echoes the sentiments of participants in

the group: insufficient access and skills to use technology impedes optimal service use (Kennedy and Yaldron 2017).

In research that examines past emergency preparedness planning at the community level, organizations emphasize the need for community collaboration to inform consistent, clear, and sector-specific guidelines (Buccieri and Schiff 2016, 107). Participants described guidelines as being insufficient in numerous ways: guidelines were too general, used convoluted language, fluctuated, were unclear, were English-dominant, and differed from what was provided by regulatory bodies. Literature for sound pandemic planning emphasizes community involvement to equitably target and plan for the circumstances of vulnerable populations (Stevenson et al. 2009).

Largely, insufficient and inadequate sector-specific guidelines could be mitigated by involvement from community organizations and researchers within planning processes. For instance, physical distancing guidelines were challenging to implement within emergency shelter spaces (Buccieri and Schiff 2016, 90). If community-based homeless shelters were consulted about pandemic planning, government may better understand capacity concerns pertaining to physical distancing. As well, these organization would have the opportunity to work with government in producing specific emergency shelter guidelines that maintain integrity of practice.

Research also validates the solutions proposed by participants as viable. The two themes recurring as proposed solutions included person-centredness and reciprocal partnerships. Robust bodies of literature to support the efficacy of both ideologies.

Person-centredness is commonly used to describe ideal pursuit in healthcare policy, practice, and research (McCormack and McCance 2010, 2). This ideology is a holistic, integrative approach that considers an individual person's circumstances, needs, and preferences (Barnett 2018). Participants described person-centred policies and programs as being both equitable and evidence-based.

Equitable pandemic policies and programs, as they appear in the research, are often framed in terms of medical and vaccine access (Fidler 2010). However, some recent literature urges policymakers to consider policies that will reduce social and health disparity in recovery stages of COVID-19. Globally, researchers have observed the pandemic's exploitation of existing structural inadequacies (Alberti, Lanz, and Wilkins 2020). Recent research notes increased stigmatization of Asian populations, differential exposure, and school closure impacts on low-income children (Alberti, Lanz, and Wilkins 2020; NAACP 2020). Participants noted that policies addressing recovery should be needs-based to ensure those experiencing exaggerated hardships receive proportional policy guidance and support.

Grey literature also signals to specific systems-level economic, political, and social inequities highlighted by pandemic affects. Racial minority, elderly age, incarceration, homelessness, and low-income are reported as risk factors for morbidity and mortality from the virus itself (NAACP 2020). In tandem with by-products of COVID-19, such as stay-at-home orders, the impacts of the pandemic have illuminated inequities affecting these vulnerable people. Some of these disparities include housing insecurity, inaccessible childcare, inadequate institutional models of care, lack of space in prisons and homeless shelters, insufficient sick leave policies for front-line workers, and emergency food distribution (NAACP 2020). Recent academic and grey literature

supports participants' call for person-centred policies to address social and health inequity as Alberta continues moves through stages of recovery (Carlos, Lowry, and Sadigh 2020).

Participants also highlighted the role of evidence-based policies in promoting person-centred approaches to provincial recovery. Research that addresses particular circumstances created by COVID-19 is scarce. A lack of current research results from the recency of the pandemic, as well as the time it takes for evidence to mobilize (Dissanayake 2020). However, past pandemics, such as H1N1, have revealed a need for more a more extensive evidence-base surrounding pandemic planning at all levels of government (Lipsitch et al. 2011). Policymakers have limited data, which means policies are rooted in jurisdictional success, past strategies, and gut instincts (Dissanayake 2020). This means that decision-making throughout the pandemic is, and has been, experience-based rather than evidence-based. While literature notes the exaggeration of various health and social inequities throughout the H1N1 pandemic, there is minimal research addressing how to translate evidence from the pandemic into policies and programs. Participants and the literature alike identify a need for a more robust evidence-based surrounding pandemic policies promoting effective planning, response, and recovery.

While disjunct as participants suggested, reciprocal partnerships may be a mechanism to alleviate the research-to-practice gap throughout the current pandemic and mobilize person-centred policies into practice more quickly. Participants reported a need for more effective collaboration at a variety of levels, including intragovernmental collaboration, partnership between organizations, and formalized connections between policymakers, academia, and community organizations. Literature supports faster knowledge mobilization occurs through partnerships within and between each of these bodies.

Intersectoral collaboration has been proposed as a means of reducing systems-level gaps experienced by families as they navigate a variety of programs that promote children's outcomes. Coherent organization between ministries has notable benefits for children and families (Friendly 2008, 40). In 1995, the state of Maine combined five departments that serviced children and families in diverse ways: Education, Health and Human Services, Corrections, Public Safety, and Labour (Children's Cabinet Network 2010). The combination of these departments, now known as the Children's Cabinet, cohesively work together to uphold one comprehensive vision, focused on school success, workplace readiness, health and safety of families, and family-centredness (Children's Cabinet Network 2010). Noteworthy benefits since this initial collaboration include leveraged funding from federal and private sector sources, alignment of programming to stimulate benefits across multiple dimensions of child health, and the creation of an Educare centre (Children's Cabinet Network 2010). Maine's Children's Cabinet is considered a nationwide exemplar of cross-ministry collaboration. Collaborative models such as children's cabinets are research-supported methods of comprehensively coordinating policies and programs that support best outcomes for families (Larson and Henrikson 2010).

Collaborative partnership is dominated by community participatory capacity in the literature. The literature demonstrates that evidence-based policies mobilize quickly into the local community when organizations collaborate with academics and policymakers in conducting research (Fourie 2003, 33). Reciprocal relationships between academia, community organizations, and policymakers produce effective legislative progression (Brockway 2005, 1). Partnership between these three bodies, however, can be challenging to coordinate and

implement (Jenson and Fraser 2015). While provincial ministries such as the Ministry of Community and Social Services (MCSS) claim to have transparent, open door ideologies, such ideologies, have failed to effectively respond to the needs of community organizations and families during COVID-19 (Alberta 2017a; Alberta 2017b).

Community organizations are valuable resources for informing research questions, as they navigate daily operations of the research interest (Wallerstein and Duran 2010). Research partnerships have the ability to broaden policymakers' perspectives, increase scope and range of the content investigated, and minimize replication of similar research (Green, Daniel, and Novick 2001). Within the context of COVID-19, an important advantage of these partnerships is fluid knowledge mobilization that can promptly inform evidence-based decisions (Shields and Evans 2012, 255). Issues noted by participants that may be eased by such partnership include uncoordinated and insufficient communication from government, access to technology, digital literacy, and funding competition between agencies.

Though much of the literature surrounding reciprocal partnerships speaks to ministerial partnership and community-government engagement, there is some research supporting organizational alignment as a knowledge mobilization catalyst (German, Urquhart, and Wilson 2008, 4). In the literature, this concept is referred to as "interorganizational collaboration" (Karlsson et al. 2019). Interorganizational collaboration has positively implications for tailoring cooperative effort to client outcomes, to advance evidence-based practice, and to allocate resources (Karlsson et al. 2019, 241). However, as participants mentioned, economic downturn often makes community organizations insecure and competitive (Taylor 2017). It can be challenging to entice organizations due to fear-based perceptions around scarcity of funding

access (Taylor 2017). During the pandemic when funding is short-sighted and scarce, sector alignment may be challenging to organize.

Limitations

There are a few notable limitations within the NGT itself; namely, pressured consensus, minimization of more traditional discussion, and restriction of idea generation to a single topic (CDC 2018). Some participants expressed concern about ranking ideas that were all of importance in their daily experiences. Others were challenged by the requirement to only assign rankings to five of the themes uncovered throughout the discussion. The pressure to pick and order themes on a five-point scale seemed to be difficult for some participants. In addition, the highly structured and digital nature of the NGT may encourage participants to direct most of their ideas toward the researcher and dissuade participants from speaking directly to one another. In traditional focus groups, communal discussion is encouraged between participants in order to flesh out group feelings, thoughts, and experiences surrounding interview questions (Gibbs 1997). Structured NGT methodology may deter a more in-depth collective discussion. In the same manner, the single-topic structure also may discourage the sharing of emotions, ideas and experiences unless they specifically align with the research question. This decision, however, was made with acknowledgement to these trade-offs in order to reduce potential power imbalances and to get a prioritized list of barriers and solutions from participants.

Other limitations existed within this particular study, mostly as a result of this project's short timeline. The methodology and writing for this project were completed from May to September of 2020. Participant recruitment only began at the start of July, and NGT groups

were conducted within a two-week window. As well, NGT groups were held in the middle of summer during Alberta's Stage 2 of pandemic recovery. Many contacts during the recruitment stage expressed the desire to participate, but were unable due to childcare arrangements, vacation, or lack of availability due to pandemic planning.

The pandemic introduced a virtual element to this research that is less developed in the literature than traditional in-person qualitative research. Digital qualitative research has its advantages and disadvantages. Some of the limitations resulting from hosting the NGT groups on Zoom are as follows: less fluidity in conversation, microphone issues, unfamiliarity with Zoom, and perceived convenience to come late or leave early. Speaking to the latter limitation, six of 24 participants withdrew from the focus group prematurely due to other engagements, and two participants arrived late for similar reasoning. Zoom meetings have become a new standard of normal throughout the pandemic. Convenience is cited in digital qualitative data collection research as a key advantage from a participant perspective (Archibald et al. 2019, 4). However, in this research, the convenient access to attendance led some participants to overscheduling on the day of participation.

Consistency in participants' camera settings offered unique benefits and disadvantages whether all cameras remained enabled or disabled. In the two groups where cameras remained disabled, participants had additional anonymity without facial recognition. However, participants could not read the body language of one another with the rendered camera function, which may have decreased feelings of empathy and validation for one another. In the groups where cameras were enabled, this ability was more fluid, though participants were less anonymous to one another.

Another limitation to this study was the type of sampling used for recruitment. Snowball sampling gave the researcher minimal control over the population pooled. As well, snowball sampling may contain sampling bias, and has the potential to create a homogenous sample (Kirchherr and Charles 2017). Purposeful sampling also contained limitations, including a restricted sample to organizations who are located in Calgary, and organizations who are a part of the research team's existing networks.

Policy Implications

Person-centredness and collaboration seem to be ideologies for pandemic planning, yet no formal mechanism exists to ensure pandemic preparedness, response, and recovery are evidence-based, rather than ideologically based. Policy considerations surrounding quick mobilization of research to practice are promoted by anecdotal evidence from participants throughout the NGT groups, as well as evidence sourced from the literature review. Findings highlight a great need for swift knowledge mobilization in unprecedented emergency situations. This predominant, identifiable need can be addressed by the following three provincial policy recommendations: education and consultation with community organizations, subsidy and grant provision for community-based research, and a formalized, local network of researchers, organizations, and policymakers.

Education and Consultation with Community Organizations

The majority of participants in this study reported feeling unsafe, confused, or overwhelmed by nonspecific directives for service continuity. Provincial leadership is necessary

to sufficiently engage community organizations in the creation of sector-specific pandemic documents, to build trust, and to establish clarity around service continuity. There are a variety of ways the Government of Alberta can provide education and leadership during this time. Participant concerns and the literature identify a need for hazard awareness, technological assistance, and improving staff abilities (Bardach 2012, 148).

Within the context of NGT group concerns, this option would include thorough education about re-entry risks and mitigation, technological assistance for staff, and staff training for success in the re-imagination of service delivery. To empower organizations to create systematic and safe re-open, it is necessary to provide comprehensive education tailored to staff risks. For instance, many participants spoke about their clients' inability to comfortably wear a mask, despite emphasis from AHS on mask-wearing when physical distancing is not possible (ADA 2020). Engagement and consultation would promote bidirectional brainstorming around safe and accessible PPE alternatives for clients.

As staff capacity was commonly mentioned by participants as a barrier impeding evidence-based service delivery, technological training may be needed to improve staff ability. While organizations and staff are largely navigating service provision throughout the pandemic independently, training and development have taken necessary cuts due to reduced revenue streams (Lasby 2020, 16). Expanding the Canada-Alberta Job Grant to accept greater social service and non-profit applicants would allow organizations to take time to adequately train staff to excel at re-structured service delivery. Such education could include hardware and software training, as well as best practice education surrounding digital service delivery. Staff

could also have opportunities to share what has worked well for them as it relates to digital client engagement.

Adequate education about risks to re-entry and mitigation in the context of service delivery, as well as staff re-training, as the ability to clarify uncertainties and inconsistencies in directives. This policy option would help community organizations feel safe and supported in their transition back to in-person services. By promoting the safety of organizations and assisting in service continuity planning, families will able to receive the supports they need in a provision mode that optimizes outcomes.

Subsidy and Grant Provision for Community-based Research

Above all other themes, and across all five NGT groups, participants consistently prioritized reduced revenue streams as a barrier to evidence-based service provision. Largely, participants discussed issues surrounding the structure and focus of available funding and grants throughout COVID-19. Funding focused on long-term outputs, rather than short-term outcomes, is a growing priority for organizations and families.

Subsidy and grant provision for community-based research can shift focus toward long-term sector sustainability, can catalyze creation of evidence-based programs that promote client outcomes, and may incentivize reciprocal partnership between community organizations and researchers. To mitigate the power dynamics between researchers and organizations discussed in the literature review, allocation of funds should be delivered directly to community organizations (Thompson et al. 2010, 295). This allocation method will encourage community

organizations to be actively involved within the research process, from research question formulation to publication (Thompson et al. 2010, 295).

The pandemic has left all Canadians vulnerable. Resultantly, community organizations have reported greater demand for services with fewer resources, and with inadequate information to engage in evidence-based service provision (Tsega, Giantris, and Shah 2020). There is a great need to improve evidence-bases surrounding digital service provision. Incentivizing partnerships between academia and community organizations will help build organizational capacity, mobilize research to practice, and shift focus from short-term emergency funding to long-term, sustainable solutions for family access throughout the pandemic.

A Formalized, Local Network of Researchers, Organizations, and Policymakers

Participants disclosed great difficulty in navigating service provision throughout the pandemic due to the organization of research, community organizations, and government ministries as stand-alone entities. Collaboration between these bodies can lead to tangible public and social policy innovation, and subsequently, improvements in service delivery. Yet, these collaborations are challenging to mobilize for numerous reasons such as mistrust, lack of timely translation, academic pursuit of traditional research translation avenues, siloed social services and policies, and prioritization of focusing events over research for political creation (Reardon, Lavis, and Gibson 2006, 3; Jenson and Fraser 2015). Policies and programs underlie sustainable and optimal service delivery. To fulfill local, evidence-based service provision to its potential, government needs to recognize its role in partaking in collaborative partnerships

between community organizations, research institutions, and ministries servicing children and families.

To create and implement policies and programs that improve the circumstances of vulnerable families, community-based research needs to be communicated back to policymakers in a meaningful and appropriate way. Processes that reconcile evidence-based practices with the authority to implement these practices will bring evidence-based policies and programs to fruition.

A formal mechanism is necessary to leverage collaborative efforts between policymakers, researchers, and community organizations. A community-based research and policy hub would facilitate alignment of community organizations, encourage partnerships for community-based research, and streamline findings back to policymakers for implementation into tangible outputs. As previously mentioned, involving community organizations within research development, design, and publication leads to more practical outcomes that respond to family need. Many participants mentioned the lack of available evidence-based policies and programs created difficulties for service provision throughout COVID-19. A community-based research and policy hub would allow for prompt, applicable solutions to be communicated quickly with other academic institutions, other community-based organizations in need of solutions, and to policymakers. Effectively, a hub would increase the speed of knowledge mobilization to quickly deliver evidence-based services to families in need.

The hub can also serve an accountability function to ensure dissuasion of power dynamics within these diverse partnerships. The priorities of research, community organizations, and policymakers are not always aligned. However, as the main priority of a hub

would include responding to family need with evidence-based practices, all collaborative efforts would be with intention of servicing vulnerable families. Operationally, this intentional service would include pairing community organizations with research, providing an accessible platform for viewing of research results, engaging in collective advocacy planning, drafting briefing notes, collaborating on plain language messaging, and establishing a model to reduce the fragmentation between and within community organizations, government ministries, and research institutions. A community-based research and policy hub would equitably and sustainably facilitate partnerships that work to reduce systems-level gaps exacerbating vulnerabilities in families. During COVID-19, a hub has the ability to facilitate the development of best practices that can be quickly implemented to enhance service delivery and promote healthy families.

Future Considerations

Implementation of the aforementioned policy options for knowledge mobilization during emergencies should be preceded by in-depth research with a wider sample size, as well as a multijurisdictional environmental scan of community-based research and policy networks. The top priorities identified by participants in the NGT groups need to be validated by a larger, local audience. Future research should focus on reaching a bigger sample size through a more convenient method to corroborate the findings from the NGT groups. An online Delphi would validate the priorities identified by participants in this study, and further categorize the importance of the themes generated. Like the NGT, the Delphi technique is a consensus method used to rank barriers and policy solutions, but the online Delphi can reach a wider

audience due to its convenience (Linstone and Turoff 2002, 364). This iterative process will confirm the priorities revealed in this study and provide focus for the aforementioned policy recommendations.

In order to efficiently provide families with the services they rely upon, it is necessary to conduct multijurisdictional environmental scan of ways government has supported community organizations during the pandemic. In this manner, government can determine the specific policy instrumentation necessary to support community organizations in this time of great need. A scan will inform policymakers of best practices to support service providers, and resultantly, families. This scan will also be informative of best practice surrounding education and consultation, grant provision for community-based research, and other community-based research and policy networks.

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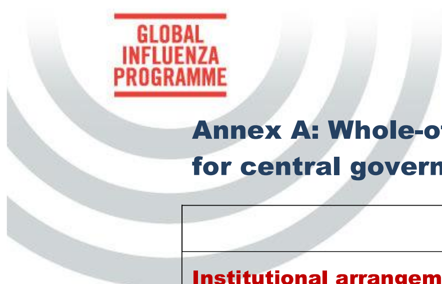
Appendix 1

Table 3: Whole-of-society Pandemic Readiness Checklist for Central Governments



Annex A: Whole-of-society pandemic readiness checklist for central governments

	Yes	*No*
Institutional arrangements		
1. Establish a **cross-government committee** or task force to coordinate national planning and response.		
2. Establish a **forum** involving civil society and the private sector.		
3. **Assign one agency**, department or ministry to lead coordination of the various multi-sectoral agencies or organizations engaged in preparedness.		
4. Integrate pandemic preparedness into national **disaster management** processes, plans, and committees.		
5. Develop explicit **legal and ethical frameworks** to govern **policy** implementation during pandemic.		
6. Develop clear pandemic plans, including **chain of command** and what human, material, and financial **resources** are required and where they will come from.		
7. Establish the locations, structures and standard operating procedures of **crisis command and control centres.**		
8. **Differentiate the actions** that will be taken at different phases and in different pandemic scenarios.		
9. Align pandemic plans with neighbouring countries. They should be **consistent and as similar** as possible.		
Harmonization of national plans and roles of different agencies and organizations		
10. Promote the **preparedness** of the private sector.		
11. **Share pandemic preparedness** plans in order to facilitate public understanding and **cross-border** consistency.		
12. **Consult with neighbouring countries** about aspects of their pandemic preparedness plan that have regional or cross-border implications. These consultations may include **meetings, workshops, and joint simulation exercises**.		
13. Identify which groups in society are likely to be **most vulnerable** and most severely affected and establish measures to **protect them.**		
14. Determine what **agencies and organizations will deliver services** most appropriate to each vulnerable population in all targeted locations.		

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Table 4: Pandemic Influenza Business Continuity Management Checklist for Business and Government Organizations

Annex B: Pandemic influenza business continuity management checklist for businesses and government organizations

	Yes	No
Plan for impact on your organization		
1. Identify a **pandemic coordinator** for preparedness and response planning.		
2. Identify the **critical activities** and **functions** that must **continue** during a pandemic, as well as resources needed.		
3. Assess the need to **stockpile strategic reserves** of supplies, and equipment.		
4. Establish clear **command** structures, delegations of authority, and orders of succession for workers and identify **who** is going to do **what, when,** and **how.**		
5. **Assign** and train alternate personnel for critical posts.		
6. Identify units or services that need to be **downsized** or **closed** to **reallocate** human and material resources.		
7. Develop **standard operating procedures (SOPs),** and identify when they should be implemented and suspended**.**		
8. Determine **financial risks** in the event of an influenza pandemic.		
9. Identify **customer needs** during a pandemic and review your business model.		
10. Determine the ability of the organization to continue operations if **critical infrastructure services** become unavailable.		
11. Determine the **financial consequences** of fluctuations in the supply and demand of your products and/or services during a pandemic.		
12. Plan for **security risks** to operations and supply chains.		
13. Conduct an **exercise** to test and update your plan periodically.		
14. Conduct a quick review during the pandemic to identify gaps.		
Establish policies to be implemented during a pandemic		
15. Establish a **personnel policy**, addressing sickness, absenteeism, and when to return to work.		
16. Assess a need for continued **face-to-face contact** with other employees / customers / suppliers and modify as needed.		

	Yes	No
17. Develop **social distancing protocols** that may be used during a pandemic.		
18. Establish guidelines for **priority of access to essential services**.		
Allocate resources to protect employees and customers		
19. Implement hand **hygiene in the workplace.**		
20. Procure **adequate infection control supplies**.		
21. Develop a plan for **family and childcare** support for critical workers**.**		
22. Develop a plan for **psychosocial support** services to help workers.		
Communicate with and educate employees		
23. Develop a system of **communication** with employees, customers, and suppliers in the event of a pandemic.		
24. Ensure that **information** about measures your business is implementing during a pandemic is available to employees.		
25. **Train staff** on infection control and communicate essential safety messages.		