

# Seeing the Spectrum:

Mapping the Gaps between Expert and Public Understandings of Fetal Alcohol Spectrum Disorder in Manitoba

A FrameWorks Map the Gaps Report

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## Introduction

Fetal alcohol spectrum disorder (FASD) is an important social issue in Manitoba fraught with misconceptions and communications challenges. Communicating with Manitobans about FASD is difficult because people’s thoughts about this issue hinge on deeply held and widely shared beliefs about motherhood, substance use, choice, responsibility, and morality. To engage members of the public in thinking about FASD in ways that boost support for the policies and programs that are necessary to address it, communicators need an empirically based framing strategy that anticipates and redirects public thinking.

Communicating effectively about FASD first requires a clear sense of the core concepts that the public needs to understand in order to support the initiatives that evidence suggests will create change. We call this set of concepts the *untranslated story of FASD*. The untranslated story unites researchers, practitioners, and advocates around a set of core principles that they want to be able to communicate to the public about FASD. After we distil the principles that need to be communicated, we describe the patterns of thinking that underlie how Manitobans think about FASD. This phase of research investigates how people *think* about FASD by examining the patterns that appear in how they *talk* about the issue. Working from over 650 pages of interview transcripts, we identify the common understandings and implicit assumptions that shape how the public reasons about FASD and related issues. This focus on common understandings does not ignore the fact that people also have different ways of understanding this issue. However, analyzing the patterns that are shared across a diverse group of people allows us to develop reframing strategies that will be most effective in changing the public discourse about FASD in Manitoba, ultimately generating support for crucial programs and policies.

This report proceeds as follows:

- We outline the **untranslated story of FASD**. This set of principles reflects the field’s understanding of what FASD is, how alcohol affects fetal development, why women consume alcohol while pregnant, what the effects of FASD are, and how FASD can be prevented and addressed. This untranslated story represents the content to be communicated to the public with a reframing strategy.
- We describe the **cultural models**<sup>1</sup>—anthropologists’ term for shared but implicit understandings, assumptions, and patterns of reasoning—that shape how Manitobans think about FASD. We review patterns of thinking related to pregnancy, alcohol use and addiction, social factors, causes and effects of FASD, and ways to address them.
- We then **map the gaps** between the field’s and the public’s perspectives and describe points at which these understandings overlap and diverge. This analysis highlights the key challenges in communicating about FASD.

- Finally, we present a set of **preliminary framing recommendations** that emerge from this map the gaps analysis.

A description of the methods used in this research, and participant demographic information, can be found in the Appendix.

# The Untranslated Story of Fetal Alcohol Spectrum Disorder in Manitoba

What do those who work on and study FASD and related issues want to be able to communicate to the public? What ideas, if understood by the general public, would increase the salience of FASD and boost public support for actions necessary to prevent and address this issue? Below we present the key themes that surfaced from analysis of a series of expert interviews and an interactive feedback session with a group of FASD experts in Manitoba.

The untranslated story is organized around five questions:

1. What is FASD?
2. How does alcohol affect fetal development?
3. What are the causes of alcohol consumption during pregnancy?
4. What are the effects of FASD?
5. How can FASD be prevented and addressed?

## 1. What is FASD?

- **FASD is a range of neurological, behavioural, and/or physical issues that result from prenatal alcohol exposure.** Prenatal alcohol exposure affects the central nervous and neurological systems. Effects include impairments to attention, language, cognitive processes, adaptive behaviour, memory, executive functioning, motor skills, neuroanatomy, and affect regulation. These effects, in turn, can impact academic achievement, health outcomes, and general wellbeing. Physical effects may include heart disease, digestive disorders, chronic pain, and facial differences. FASD is referred to as a spectrum disorder because these neurological and physical outcomes can occur in a wide variety of configurations and degrees of severity.
- **FASD is largely an “invisible disability.”** Most cases of FASD do not show effects to facial features, and the presence of facial characteristics is not indicative of the severity of the neurological symptoms. Indeed, experts noted that cases involving the most severe neurological symptoms frequently do not include any facial symptoms.
- **The prevalence of FASD is unknown.** FASD is difficult to diagnose because of the social stigma associated with the disorder. The public shaming of mothers for “causing” FASD makes them avoid seeking a diagnosis for their children and sometimes discourages health practitioners and social workers from considering a diagnosis. Prevalence is highest in communities that are systematically traumatized, yet FASD may be under-diagnosed in higher-income and non-Indigenous communities, as widespread cultural assumptions about these populations may make

practitioners less likely to ask about alcohol use during pregnancy and more likely to seek out other diagnoses to explain the presenting challenges or behaviours.

## 2. How does alcohol affect fetal development?

- **Alcohol exposure alters gene expression.** Alcohol, a known teratogen, changes the ways that genes are expressed in a developing fetus in ways that affect neurological and physical development.
- **The impact of alcohol depends on factors including the biology of the pregnant woman and the fetus as well as the social environment.** Alcohol may have a greater or lesser impact on the fetus depending on the woman's consumption of alcohol (amount, duration, and frequency); genetic susceptibility to alcohol; metabolism, age, and diet; and life circumstances, notably experiences of stress and trauma. The fetus may also be genetically more or less susceptible to alcohol.
- **Much is unknown about how these factors interact to cause FASD.** Experts stressed that the precise mechanisms by which different factors combine to cause FASD are not well understood. It is not clear which factors are most important or how factors interact to shape outcomes. Alcohol exposure at different stages of pregnancy may result in different manifestations of FASD. This remains an open question in the field.
- **The amount of alcohol that should be considered safe for consumption during pregnancy continues to be an issue of debate in the FASD research community.** Experts remain uncertain about the relationship between quantity of alcohol consumption and FASD. Some experts suggest that "no amount is safe," while others argue that this message is misleading and paternalistic as it suggests certainty where none exists and makes judgments on women's behalf rather than providing full information.

## 3. What are the causes of alcohol use during pregnancy?

- **A strong culture of drinking pervades social life in Manitoba.** Experts emphasized that drinking is a common social activity for Manitobans. In particular, a culture of heavy consumption exists among youth (especially in college environments) and 25- to 35-year-olds. This culture of heavy drinking cuts across socioeconomic status, race and ethnicity, and cultural background. Experts emphasized that pregnant women drink in large part to participate in everyday social activities. In other words, FASD does not simply result from attributes of specific populations, but can be traced to widespread behaviours rooted in common cultural norms and activities.

- **Alcohol use during pregnancy can result from the same social and environmental factors that lead to alcohol misuse more generally.** Alcohol misuse is often a means of coping with mental health problems or traumatic or stressful experiences such as domestic abuse or poverty. Experts explained that, just as in other cases of alcohol use, these factors underlie alcohol use during pregnancy.
- **Indigenous communities are disproportionately affected by social and environmental factors that may lead to alcohol misuse.** Indigenous communities have experienced and continue to experience high levels of poverty and trauma as a result of colonization, systemic racism, and continued practices of oppression. The concentration of these factors in Indigenous communities contributes to alcohol misuse generally and, in turn, during pregnancy.
- **Addiction makes it difficult to stop drinking during pregnancy.** When women are addicted to alcohol, it is very hard to stop drinking during pregnancy even if they are aware of the dangers of alcohol consumption during pregnancy.
- **Being unaware of a pregnancy may explain alcohol consumption during early stages.** It is estimated that about 50 percent of pregnancies are unplanned. Many effects to a fetus's central and neurological systems can occur during the first few weeks of pregnancy. Some experts suggested that being unaware of pregnancy and drinking heavily is more common among young women who participate in a widespread youth culture of heavy social drinking.
- **Lack of awareness of the risks of drinking during pregnancy can contribute to consumption.** Experts suggested that while most women in Manitoba today are aware of the dangers of drinking during pregnancy, there are some (particularly young and marginalized women) who remain unaware of risks.

#### 4. What are the effects of FASD?

- **The effects of FASD vary by person and can include cognitive disabilities, issues with affect regulation, sensory sensitivities, and physical effects.** Cognitive difficulties typically occur in the areas of reasoning, memory, planning, and problem-solving. It is common for people with FASD to have difficulty learning from experiences, staying organized, and keeping a schedule, even though their language skills may suggest a high level of competence. Issues with affect regulation can manifest as overreaction, impulsive behaviour, and difficulty focusing. Individuals with FASD may be sensitive to light, noise, and touch. Physical effects can include heart conditions, weaknesses in organ systems, and facial differences. Experts emphasized that people with FASD can be very capable and may have normal IQs.

- **Effects are often exacerbated by misunderstandings, bullying, manipulation by others, stigma, and social isolation.** The “invisible” nature of the disability, combined with the fact that people with FASD have normal levels of competence in many areas of life, often leads others to judge the behaviour of individuals with FASD in moral terms. For example, overreaction and other inappropriate affect may be misunderstood as an “attitude problem.” Such misunderstandings can make it hard for people with FASD to form positive relationships and maintain friendships. In developmental terms, people with FASD are frequently younger than their biological age, making them vulnerable to manipulation by others. Experts gave examples of young people with FASD who were encouraged (for the amusement of others) to commit antisocial or destructive acts such as starting fires or engaging in inappropriate sexual behaviour.
- **Lack of proper diagnosis and support for adolescents and adults with FASD can limit educational and employment opportunities and lead to involvement with the criminal justice system.** Experts gave examples of people with FASD committing petty theft, trespassing, and arson and being manipulated by criminal gangs. Furthermore, due to decision-making difficulties, individuals with FASD do not respond well to traditional legal sentences and are likely to reoffend. At work, their performance may be lacking due to difficulties with affect regulation, challenges with maintaining focus, and sensitivity to stimuli such as light and noise. Employers frequently misunderstand these issues and believe that poor performance is due to poor work ethic or bad attitude.
- **Families affected by FASD often experience emotional stress, financial difficulty, and social isolation.** Feelings of guilt are very common, especially among mothers. Parents are exhausted by the ongoing need to teach and explain their child’s struggles at school or at work, worry about how their child will fare when they can no longer provide support, and experience social stigma related to the disorder. Successful parenting of a child with FASD requires but is not limited to management of the child’s environment; continued advocacy within social service systems; ongoing explanations of behaviours to extended family, friends, and community; readjustment of strategies for daily behaviour management; and maintenance of a consistent routine. These efforts can be exhausting, limit the ability of caregivers to work full-time, negatively impact family income, and cause social isolation and family dysfunction.
- **FASD affects communities by overtaxing social services.** Experts suggested that FASD particularly affects the education and criminal justice systems. Schools are challenged by the cognitive and behavioural difficulties of children with FASD. The criminal justice system struggles to understand youth with FASD and is poorly equipped to rehabilitate them.



## 5. How can FASD be prevented and addressed?

- **Strengthen social services.** Experts argued that provincial and federal governments must strengthen social supports to reduce the social stressors, such as poverty, that can lead to drinking while pregnant.
- **Develop community-based programs that address the person as a whole.** Programs have inadvertently sent the message to women that if they drink, they are bad moms and do not deserve support. Programs for women who use alcohol should be welcoming and accepting, recognizing that addiction is often a symptom of past trauma. Women must feel safe in all ways (physically, emotionally, culturally, and spiritually) when they present for support. Programs must address the full range of women's needs: dietary, physical and mental health care, child care, spiritual care, etc.
- **Focus on harm reduction rather than abstinence.** Experts suggested that emphasizing abstinence can be counterproductive, as it suggests an all-or-nothing approach that makes reductions in alcohol use seem pointless. They argued that moralizing alcohol use during pregnancy is not only paternalistic but also fails to address the root causes. Any effort to reduce alcohol consumption should be positively reinforced. For pregnant women who struggle to give up alcohol due to difficult life circumstances or addiction, experts advocated a relational approach based on motivational interviewing, in which a mentor provides intensive support and positive reinforcement without reacting negatively if a woman falls short of goals.
- **Work towards the calls to action put forth by the Truth and Reconciliation Commission of Canada.** Provincial and federal governments must fully address the historical legacy of colonization and take steps to counter the systemic racism that continues to exist in Manitoba and Canada more generally. Doing so is necessary to create a context in which all Canadians are respected and valued and in which all communities are free from the stress and violence that can contribute to alcohol misuse. Departments of child and family services, education, language and culture, health, and justice each require significant shifts in philosophy and practice if all Canadians are to be treated equally.
- **Improve educational programs for youth to increase awareness about alcohol and FASD.** Educational programs are needed to increase young people's understanding of the risks of drinking while pregnant and the possibility of FASD. Schools should educate students about alcohol use in general so that youth know about the risks and are provided with strategies to manage peer pressure around drinking. Some experts suggested that alcohol should be included in curricula for existing health or sex education classes, noting that at present the topic of alcohol is not consistently taught as part of the health education curricula across schools and school divisions.

- **Train health care practitioners to effectively address alcohol use and contraception.** Health care providers should be trained in effectively engaging patients in discussions of alcohol use and contraception, so that they can better help patients identify and address alcohol misuse and encourage use of contraception to reduce unwanted pregnancies.
- **Increase service provider competence in dealing with FASD.** Experts stressed the importance of giving youth with FASD positive school experiences so that they stay in school. Outcomes are greatly improved for people with FASD when they have access to supportive teaching and appropriate classroom environments. Similarly, police and judges need to understand that they are working with “brain-based behaviour” that requires alternative approaches to sentencing and rehabilitation. Manitoba social services need to provide more case managers and mental health providers who are knowledgeable about the specific needs of people with FASD. Knowledgeable case managers are needed to liaise with schools, job placement agencies, and housing services. Mental health workers need to understand the specific therapies that tend to be more effective for people with FASD, and more mental health practitioners must be available to provide these alternative therapies.
- **Provide culturally competent services.** Service providers must recognize and respect the culture of their participants. This is especially true of Manitoba’s Indigenous population. Services provided to Indigenous or other cultural groups should be developed and staffed by people from those groups to the largest degree possible. At the very least, all providers must be trained to understand and respect the culturally specific practices of the people they support.
- **Support caregivers.** It is important that caregivers have the support they need to understand FASD and cope with the unique demands it places on them and their families. Education, financial support, specialized child care, and support groups can all increase the likelihood that children with FASD will remain with their caregivers, experience strong early attachment, and avoid trauma. Because many children with FASD are in foster care, the same concerted effort must apply to foster parents so that they have the tools they need to provide quality care, and so that children are not frequently moved to new placements.
- **Expand and improve the capacity of Manitoba’s health services to diagnose FASD.** Early identification of FASD is key to improving outcomes for people with FASD and their families. Early diagnosis also enables the identification of an individual’s strengths, which can inform the design of personalized programs in schools and advice for parents, so that children with FASD can have more positive early experiences and build a better foundation for the future. To improve diagnostic capacity, the government should make services more accessible in all regions of Manitoba. Diagnosis for FASD must also be expanded across class lines, as cases of FASD among middle- and upper-middle-class children are sometimes missed due to class biases, leading such

children to be misdiagnosed with other conditions such as attention deficit hyperactivity disorder. In addition, more research is required to enhance the reliability of diagnostic techniques.

- **Build partnerships between the federal government, the provincial government, and Indigenous communities.** When Indigenous communities wish to provide their own services, they should receive equal funding. The relationship between Canadian and Indigenous governments must be based on the principle of partnership, replacing colonial practices that are responsible for the intergenerational trauma that contributes to a high incidence of FASD among Indigenous peoples.

# Untranslated Expert Story of Fetal Alcohol Spectrum Disorder (FASD) in Manitoba

## What is FASD?

- FASD is a range of neurological, behavioural, and/or physical issues resulting from prenatal alcohol exposure.
- It is largely an “invisible disability;” most cases don’t affect facial features.
- The prevalence is unknown, and FASD is likely under-diagnosed. Prevalence is highest in communities that are systematically traumatized.

## How does alcohol affect fetal development?

- Alcohol exposure affects fetal development by altering gene expression.
- The impact of alcohol on the fetus depends the biology of the pregnant woman and the fetus as well as the social environment.
- Alcohol use may have a greater or lesser impact depending on the amount, duration, and frequency of consumption, but much is unknown about how these and other factors interact to cause FASD.
- The amount of alcohol that should be considered safe during pregnancy continues to be an issue of debate in the FASD research community.

## What are the causes of alcohol use during pregnancy?

- A strong culture of drinking pervades social life in Manitoba.
- Alcohol use during pregnancy can result from the same social and environmental factors that lead to alcohol misuse more generally: mental health problems, trauma, poverty, colonization, systemic racism, etc.
- Indigenous communities are disproportionately affected by social and environmental factors that may lead to alcohol misuse.
- Addiction makes it difficult to stop drinking during pregnancy.
- Being unaware of a pregnancy may explain consumption in early stages.
- Lack of awareness of the risks of drinking during pregnancy can contribute to consumption.

## What are the effects of FASD?

- Effects vary by person and can include cognitive disabilities, issues with affect regulation, sensory sensitivities, and physical effects.
- Effects are often exacerbated by misunderstandings, bullying, manipulation by others, stigma, and social isolation.
- Lack of proper diagnosis and support for adolescents and adults with FASD can limit educational and employment opportunities and lead to involvement with the criminal justice system.
- Families affected by FASD often experience emotional stress, financial difficulty, and social isolation.
- FASD affects communities by overtaxing social services.

## How can FASD be prevented and addressed?

- Strengthen social services.
- Develop community-based programs that address the person as a whole.
- Focus on harm reduction rather than abstinence.
- Work towards the Truth and Reconciliation Commission of Canada’s calls to action.
- Improve educational programs for youth to increase awareness of alcohol and FASD.
- Train health care practitioners to effectively address alcohol use and contraception.
- Increase service provider competence in dealing with FASD.
- Provide culturally competent services.
- Support caregivers.
- Expand and improve the capacity of Manitoba’s health services to diagnose FASD.
- Build partnerships between the federal government, the provincial government, and Indigenous communities.

# Public Understandings of Pregnancy, Alcohol, and Fetal Alcohol Spectrum Disorder

What are the dominant *cultural models*—the term that anthropologists use to describe shared but implicit understandings, assumptions, and patterns of reasoning—that inform the public’s thinking about FASD in Manitoba? Our research shows that there are clear and consistent patterns in the public’s thinking about FASD. Understanding how the public thinks about FASD, and all the intersecting issues, will help communicators anticipate how the public will interpret information about FASD. Armed with knowledge about how the public thinks, communicators can better frame their messages to increase understanding and engagement and avoid messages that leave the public disengaged or lead public thinking in unproductive or even counterproductive directions.

We first describe four foundational cultural models (sometimes referred to as “cultural models” or simply as “models” throughout the report) that underlie the public’s thinking about FASD. We then discuss public thinking about the same five questions that appear in the untranslated story of FASD presented above.

## 1. Foundational cultural models: What underlies thinking about FASD?

Four foundational cultural models of **women and pregnancy** shape the public’s thinking about FASD. Communicators need to be aware of these models because they strongly influence public attitudes and opinions about FASD, specifically what causes it and what can be done to address it. We describe each of these cultural models and then explain their implications for communicators.

### The *Individualism* Foundational Cultural Model

FrameWorks has documented the *Individualism* cultural model across many issue areas, including obesity, resilience, aging, health, and others.<sup>2</sup> At the core of this cultural model is the assumption that the outcomes that people experience—specifically outcomes related to health and wellbeing—are exclusively the result of individual choices, drive, and strength of will. According to this powerful assumption, contextual factors are largely irrelevant because outcomes are the result of individuals choosing to make good choices (or not).

When the *Individualism* model is applied to thinking about pregnancy and FASD, it leads people to see a woman’s choices—typically regarding a healthy diet, frequent exercise, and sufficient rest—as the sole determinants of a successful pregnancy.

**Participant:** Drink plenty of healthy fluids, keep exercising, eat healthy foods while you’re pregnant, and get plenty of sleep as well.<sup>3</sup>

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**Participant:** A woman should take care of herself. She should take prenatal vitamins. She should seek medical care. She should be thinking of the best interest of her child.

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**Participant:** She needs to think about the health of their baby. And she needs to keep that mindfulness of healthy diet and proper nutrition and being aware of chemicals that she's around. Not putting herself in situations where the air could be compromised.

The *Individualism* model, and the primacy of personal choice and willpower in determining wellbeing, shapes the public's belief that any choice deemed unhealthy is the result of a lack of willpower or poor decision-making, and only the individual in question is at fault.

### The *Gatekeeper Foundational Cultural Model*

Analysis of interview transcripts revealed a slightly more specific version of the *Individualism* cultural model that was used to think about pregnancy and FASD. Using what we call the *Gatekeeper* model, the public understands a woman who is pregnant as the sole "gatekeeper" to the fetus—she controls the substances to which the fetus is exposed through the decisions that she makes to consume, or not consume, certain substances. The components of this model are as follows: (1) the pregnant woman decides what enters her body, (2) what enters the pregnant woman's body enters the fetus, and (3) substances that enter the fetus determine its development and wellbeing. Thinking with this model, the mother is solely responsible, via her gatekeeping function, for fetal development and wellbeing.

**Participant:** Science has made it so that [women] are the carriers of the babies. Therefore, the ball is primarily in the mother's court to make the right choice. The father can definitely have an impact, but mother has the final say.

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**Participant:** I would say the mother [is responsible for the fetus's wellbeing]. The mother should take care of the child. She should have the best interest of that child in mind. More than anyone, more than any program, more than any support, it falls to the woman. It's her baby. It's a part of her.

Because the woman is the gatekeeper, FASD is understood to be the direct result of her decision to allow alcohol to enter her body. This way of thinking is a major part of why people hold women so narrowly and exclusively responsible for FASD.

**Participant:** Ultimately, it's the mother's fault for drinking if [FASD] is what happens. It's not really the child's fault. It's just too bad that the child has to suffer with that for the rest of his or her life, you know?

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**Participant:** Everybody wants to blame somebody else for everything. And I think [women should have] *accountability* for what they do.

### The Woman as Vessel Foundational Cultural Model

The public's thinking about pregnancy—and by extension, FASD—is structured by another common and dominant metaphor related to the *Gatekeeper* model. Analysis of interview data showed that when thinking about pregnancy, the public implicitly compares women to vessels or incubators,<sup>4</sup> and in that way, the public sees pregnancy as a fundamental change in a woman's identity.

Before pregnancy, a woman is seen as an independent agent with her own desires, goals, challenges, and responsibilities; she is responsible for the consequences of her decisions and actions. But upon pregnancy, her identity changes from an independent person to the carrier of another agent. Once the shift from self-interested agent to other-interested carrier—from *individual* to *vessel*—happens, the woman's life is no longer her own. Instead of living for herself, the woman lives—or should live—in the service of the fetus's healthy development.

**Participant:** [Women] have to think about the wellbeing of their child. And they have to put that first, before their own wellbeing.

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**Participant:** You have to take care of yourself, and if you're not pregnant, you don't think of those things. It doesn't really matter.

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**Participant:** It would be nice if everybody thought about living healthy and doing all the right choices, but a woman that is pregnant I feel is obligated to, or should ideally, think beyond just herself and to put as primary what's needed for her child.

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**Participant:** You don't think about yourself, you have to think about that kid. There's not one person on planet Earth that would disagree with me if they had any kind of decency and common sense.

### The Rational Actor Foundational Cultural Model

Analysis of the interview data also revealed a deeply held, but highly implicit, understanding of human behaviour and decisions. Underlying the public's thinking about alcohol use and FASD is the assumption that behaviour is the result of rational decisions; in other words, individuals carefully weigh the costs and benefits of an action before deciding to act. In this way, all behaviours are understood to be the result of a conscious and rational decision calculus. Consistent with the *Individualism* cultural model, contextual factors are inconsequential.

**Participant:** I get angry when I hear about FASD, because I just think, this is self-inflicted. Like, someone did this to this child.

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**Participant:** I know my cousin has [FASD], because his mom wasn't very smart and made bad choices when she was pregnant with him.

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**Participant:** Obviously, you have sex, with some luck [pregnancy is] gonna happen. And I don't know why they keep doing it. Because I know a lot of people, they had a lot of kids, but if you can't afford them or take care of them properly, then why are you doing it?

Thinking with the *Rational Actor* model, people understand alcohol consumption during pregnancy to be a deliberate choice; therefore, women who consume alcohol have consciously put their own wants ahead of the needs of the fetus. They are then seen as selfish and fundamentally immoral actors. This model fuels the stigma that attaches to women who drink during pregnancy, as people believe they have consciously made selfish decisions. The vitriol with which research participants made this moral judgment was notable.

**Participant:** Selfish! How about selfish? No matter what your backstory is, you shouldn't be drinking when you are having a baby. That's what I think, anyway.

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**Participant:** I think for the most part [drinking during pregnancy] would be out of selfishness.

**Researcher:** How so?

**Participant:** I think that she'd only be looking to take care of her own needs—not even needs, her *wants*. Her own wants. She *wants* to party, she *wants* to drink, and she's not thinking about what her baby needs.

## *Communication Implications*

**The foundational cultural models of pregnancy block consideration of the social determinants of FASD.** Together, the four foundational cultural models of responsibility and decision-making described above shape the public's belief that mothers are the sole entities responsible for fetal wellbeing and therefore FASD. These strong patterns of reasoning make it almost impossible for people to think about the role of the social environment in shaping fetal development. The public's inability to consider social determinants is a key challenge for those communicating about a public health approach to preventing and addressing FASD. Communicators will need to shift people's default thinking away from personal responsibility and develop messages that (1) emphasize the complex social factors that contribute to FASD and (2) encourage thinking about the importance of large-scale collective action.

**Understanding the causes of FASD exclusively in terms of individual choice limits the range of solutions that people can see as appropriate and effective.** If the public understands FASD as the result of poor decision-making, then the solutions that will appear appropriate are those that influence decisions and choice. These solutions include educational interventions and punitive actions that people think can discourage negative choices and shape behaviour. These ways of thinking leave many of the solutions advocated by experts—especially those that focus on social determinants—out of the public's view and off



their radar. Communicators must clearly explain and illustrate *how* solutions that address the social determinants of FASD improve outcomes.

**Foundational cultural models of women and pregnancy explain and reinforce stigmatization.**

Reasoning with the foundational cultural models described above, FASD is seen quite simply as the result of decisions made by a weak or selfish person. This perspective fuels stigma and reinforces difficulties in addressing this issue. If FASD is the result of weak or immoral individuals unable or unwilling to make the right choice, it becomes easy to focus blame on individuals, hard to see the role of context, and harder still to support systemic solutions. Communicators know that the stigmatization of mothers is an important challenge for addressing FASD and should avoid inadvertently cuing the individualistic thinking that fuels and perpetuates stigma.

**The *Woman as Vessel* model makes it difficult to see how pre-pregnancy experiences and challenges affect pregnant women.** When thinking with the *Woman as Vessel* model, people see pregnancy as a dramatic shift in identity, agency, and responsibility. This identity switch makes it hard for people to see how the experiences and challenges that women face *before* becoming pregnant continue to affect them *during* pregnancy. Alcohol use might be allowable when a woman is responsible for only herself, but as soon as she is carrying a fetus, alcohol use immediately becomes unacceptable. This way of thinking contributes to a difficulty in understanding alcohol use by pregnant women, and in part explains the blame associated with drinking during pregnancy. Communicators will need to reinforce the concept of a woman as a whole person, whose challenges and experiences do not vanish with pregnancy.

**The *Woman as Vessel* model negates the role of a heavy drinking culture.** Manitobans acknowledge that drinking—even heavy drinking—is a common social activity in their province. But when people use the *Woman as Vessel* model to think about a woman who is pregnant, people think that she should put the best interests of the fetus ahead of her desire to socialize and participate in the culture of drinking. If a woman’s primary responsibility is to act as an incubator for a healthy child, the thinking goes, then she should be able to avoid social drinking. This cultural model is so dominant that people believe that the pressure to drink is almost irrelevant for a woman during pregnancy.

Along with these foundational cultural models is a set of more specific patterns of reasoning that people use to think about FASD. Below we describe these models and explain how people use them to reason about FASD and related issues.

## 2. What is FASD?

Research participants were quite familiar with FASD, though they often referred to it as “FAS,” or simply “fetal alcohol.” Before their interview, participants were told only that they would be having an open-ended discussion with a FrameWorks researcher about current issues in Manitoba; that is, they were not told that their interview was about FASD. However, when the conversation turned to the topic of

pregnancy, all participants brought up alcohol consumption without the interviewer introducing the issue, and many participants mentioned FASD specifically. This suggests that these issues are top of mind for members of the public and that there is a general awareness of FASD.

**Participant:** [FASD happens when] a person was exposed to alcohol consumption in the womb and is living with some ramifications from that.

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**Participant:** Fetal alcohol syndrome disorder occurs when the mother has regularly consumed alcohol during her pregnancy.

When they described FASD, participants explained that it involves cognitive, behavioural, and sometimes physical issues. Although not many participants used the term “spectrum,” they clearly understood that FASD is related to a range of effects.

**Participant:** I would think learning, memory, retaining, behaviour, and depending on development, maybe some physical.

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**Participant:** I’ve seen it myself—kids that maybe have shorter fuses, have attention problems, have trouble staying focused and on task with things. And I believe strongly it has had to do with alcohol in the womb.

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**Participant:** Maybe they act out a little more. They could be a little more aggressive. They could be a little more mouthy or whatever. They could just have a bad temper.

Participants also recognized that it is often impossible to determine whether people have FASD by looking at them or having brief and casual interactions.

**Participant:** I know my cousin has it. I couldn’t really tell at first. But I was told that’s what he has, and I can sort of see it in his behaviour. But I don’t really think you can tell other than [by] asking. But maybe depending on the severity of it, you can tell maybe by looks. But if it’s a mild case, then you might not be able to tell. You could think the person is completely fine.

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**Participant:** I’m sure there are people who got it, and they look exactly like me and you. I don’t know, you just got to know them on a personal level to know if they have some issues I guess.

## *Communication Implications*

**The public understands the basic characteristics of FASD and recognizes it as an important issue.**

While their definition is not as full or as nuanced as that of experts, Manitobans recognize FASD as an important issue and have a basic understanding of the disorder that is in line with the expert perspective.

This suggests that communicators should not focus their limited messaging real estate on basic definitions of the disorder, or try to convince the public of the severity of the issue; instead, they should focus their efforts on other aspects of the issue that need reframing, as described in detail in the final section of this report.

### 3. How does alcohol affect fetal development?

It is important to note that *all* research participants asserted that women *should not drink* while pregnant. Alcohol, tobacco, and drug use during pregnancy were salient concerns for participants.

**Researcher:** I want to start by talking about pregnancy, generally speaking. When you think about pregnancy, what comes to mind?

**Participant:** Two things that come to my mind would be: don't have any alcohol or don't smoke when you're pregnant. That's what comes to my mind. I just hope that the mother takes good care of herself for those months that she's pregnant.

The view that pregnant women should not drink alcohol is based on a set of cultural models that shape thinking about how alcohol affects a fetus.

#### *The Direct Chemical Transfer Cultural Model*

The public understands the interaction between a mother and a fetus as a *direct transmission of physical substances*. In short, chemicals ingested by the mother (e.g., from food, alcohol, other drugs, etc.) are absorbed directly by the fetus and affect it in various ways. Thus, in the public's thinking, if the mother consumes alcohol, then the fetus consumes alcohol.

**Participant:** Whatever you consume, the baby is going to consume it one way or the other. So, I still think that until you've given birth [you should not drink alcohol], and then you can do whatever you want.

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**Participant:** If you eat a lot of unhealthy foods, the baby's going to get that too, right. So, you want the baby to have nutritious foods.

#### *The Effect Mismatch Cultural Model*

Another important assumption is the idea that an amount of alcohol that is normal, or even inconsequential, for an adult woman is massive and far more significant for a fetus because of its size. If a woman consumes any amount of alcohol, which is passed along to the fetus, that quantity of alcohol is understood to be overwhelming given the fetus's small size. Therefore, even modest or minimal alcohol consumption is assumed to have devastating effects on the fetus.

**Participant:** I don't drink. So, if I had one drink, I'd probably get drunk off it. So, imagine something that's the size of your hand getting even a thimbleful. That's going to get them drunk.

### *The Alcohol Exposure Leads to Alcohol Addiction Cultural Model*

Analysis also revealed that the public shares a deep but implicit understanding that exposure to alcohol can lead to alcohol addiction. These assumptions hold for both adults and fetuses—both develop alcohol addiction from repeated exposure to alcohol. Therefore, the public assumes that when a woman drinks—especially repeatedly—during pregnancy, the transfer of alcohol from mother to fetus (according to the *Direct Chemical Transfer* model) results in a child who will have, throughout his or her life, a strong predisposition to alcohol addiction.

**Participant:** I believe that just the alcohol in your system is not good for the baby. [...] Obviously, if you're ingesting it and the baby's getting it, there's a good chance the baby's going to be born addicted to it.

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**Participant:** [Fetuses] might actually get an alcohol addiction themselves, because they might like it too much.

### *The Critical Moment Cultural Model*

The public assumes that a fetus is “unformed” and developing at a rapid pace. Fetal development is understood as a critical time in which foundational aspects of brain and body are formed. According to the *Critical Moment* model, because the fetus is undergoing an intense process of development, it is particularly sensitive to alcohol exposure received from the mother. Introducing alcohol at this stage dramatically “derails” development—especially brain development—and keeps it from proceeding normally, creating severe and long lasting consequences.

**Participant:** I think there's just so much development to a baby in such a small amount of time that any amount of alcohol [is harmful]. That's just going to, I think, stop whatever [development] is going on.

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**Researcher:** Are there other effects of FASD? How long do the effects last?

**Participant:** I would assume it would be lifelong, because it's through your development—your creation, your conception. I would think it would be in every aspect of you. I think it would affect you lifelong, because it's part of you. It would be part of who you are. Maybe you're even born addicted, is that possible, or [with] a taste for it. Because it's part of your blood and tissues and being.

### *The Different Structures Develop at Different Times Cultural Model*

Related to the *Critical Moment* cultural model is the assumption that the type of damage incurred depends on which structures (e.g., various organs) are developing at the time of alcohol exposure. People

are aware that different structures are “under construction” at different points of the developmental process. When people think about FASD, they reason that the timing of prenatal alcohol exposure matters because it determines which developmental structures will be interrupted and, therefore, what the effects of the alcohol exposure will be.

**Participant:** When you are drinking, you don't know what is developing, you don't know what's happening in there. So, what if it's that day the brain is developing? There could be some functional problems. There could be some learning disabilities or mental problems. I don't know. Just don't do it. Don't take the risk. But I would assume it affects the whole body from head to toe.

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**Participant:** This all may depend on the extent of the alcohol consumption, but the fetus isn't just having optimal growth. From my understanding, and it makes sense, the fetus may not develop properly or on schedule, as it could.

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**Participant:** How do I think this actually works in the body? I think that, I know what it feels like if I drink alcohol. It does something in my head and things are different there. So if it's doing something to somebody that's not formed yet, if it changes anything in there, it probably can't change back. My head is already done forming. It already formed as a proper head should—as we like to say, “normal.” So whatever change I do to it, unless I go completely drastic, it's going to be temporary. But I think if something is not finished growing, it would be permanent, it would change something, and that thing probably couldn't grow back in a different way. You just made it grow like that.

### *The Forever Damaged Minds Cultural Model*

As discussed above, participants shared a basic definitional understanding of FASD. They understood FASD as a disorder primarily associated with cognitive damage—fundamental changes to the brain that create learning and behavioural problems such as learning disabilities, impulsiveness, and aggression.

**Participant:** Stunted growth, stunted learning. Just generally, the kid doesn't have a chance.

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**Participant:** The baby is born sometimes with physical abnormalities—you can tell by the distance of their eyes, for example. But it can't be specifically diagnosed as of yet, because cognitively you won't be able to tell if the child is FASD until school age, whether or not they've been affected by the alcohol. So, sometimes it's because they're not meeting their milestones. And other times they've met their milestones, but you start to see cognitively that they're not where they should be in school.

Importantly, people also assume that these effects are *permanent*. The public shares an understanding that the cognitive damages caused by prenatal alcohol exposure are deep, foundational, and set in stone. They

understand that this damage creates lifelong problems with learning and behaviour that lead to unemployment and criminal activity.

**Participant:** I guess they're not able to function correctly. They'll learn at a different rate. Their mind capacity is much different from everybody else's. They could maybe have the tendency to make more bad decisions in life.

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**Participant:** When they're kids, I guess they would have difficulties in school and their home life. When they're adults, I guess they could lead a life of crime. They could get into trouble more easily. Crime would be a big one. Not being able to cope with the syndrome they have, I think, would be another problem.

Because people assume that the minds of those with FASD are impaired, and that this impairment is permanent, they see individuals with FASD as fundamentally different and in a class apart from those the public considers "normal." This is one of the most consequential and important cultural models for those communicating about FASD issues—it casts those with FASD as deeply and permanently "other."

**Participant:** I look at [people with FASD] as a jigsaw puzzle that doesn't quite fit in with the rest of the board. Something is wrong, that puzzle piece is broken. Because of that, they don't fit in, and because of that it's always a disruption to the rest of the puzzle pieces that go in there.

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**Participant:** I guess it's just kind of more when you look in their eyes, like you can just see that stuff is not connecting. Concepts are not connecting. They're just in a different place.

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**Participant:** People are going to look at [someone with FASD] and go, "Holy shit. I don't want my kid around your kid. I don't want to associate with you."

### The *Fate* Cultural Model

Despite the ways in which the models described above lead people to assume that prenatal alcohol exposure has serious and long-term effects, people simultaneously acknowledge that in some cases, women consume alcohol and the fetus is *not* harmed. Even though participants in our research acknowledged such circumstances, they were *completely unable* to explain how this could happen and defaulted to "fate"—the idea that sometimes the world just works in mysterious ways and is beyond human control and understanding.

**Participant:** I don't know [how FASD happens]. That gets into the finer things of biology, I think. In some cases, you just—you know what? I'm a big believer in fate. Unfortunately, some people are destined for it. And it's not fun. It's not fair, but as to why one kid has [FASD] and one kid doesn't, I don't know.

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**Participant:** I know studies have proven that [alcohol is] harmful to a child, at least in excess it is. But other than that, I don't know too much of the scientific stuff, or how much a woman has to have. I know that zero tolerance is what's recommended. But I also know some that have had the odd glass of wine here or there, and everything's been fine.

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**Researcher:** Who's responsible for making sure that a baby is born healthy?

**Participant:** Well, God. [LAUGHTER]

This way of thinking highlights a general lack of knowledge about the factors involved in pregnancy and prenatal development—and shows that a better understanding of these processes would enable people to reason more productively about this issue and the solutions that experts propose.

### *Communication Implications*

**The *Direct Chemical Transfer* model oversimplifies FASD.** This pattern of thinking is highly concrete and logical. It forms a coherent model of causation: a woman chooses to ingest a substance, that substance enters her body, and it is then absorbed by the fetus, with negative effects on fetal development. Unfortunately, in oversimplifying the process, this model blocks engagement with the complex ways in which alcohol affects, and is processed differently by, different women. When people feel that they understand how something works, they are less likely to consider new information; in this way, the *Direct Chemical Transfer* model blocks more productive communication about FASD. It is important for communicators to explain the roles of various other factors to interrupt the this model.

**The *Critical Moment* and *Different Structures Develop at Different Times* models have mixed implications for communicators.** These cultural models align in some ways with expert thinking on FASD—namely they give people ways of reasoning about *how* alcohol exposure detrimentally affects the developmental process. Communicators can activate these understandings and build upon them in messages about the science of FASD. However, if communicators are not also careful to establish that systems are *plastic*, these lines of thinking easily lead people to a fatalistic view in which development has been derailed and damage has been done, and therefore there is little that can improve the lives of the individuals affected. The challenge for communicators is in building on these ways of thinking while simultaneously advancing messages that make it clear that prevention and remediation of the effects of FASD are possible.

**The *Forever Damaged Minds* and *Fate* cultural models create a strong sense of fatalism around FASD issues.** Because FASD is understood in terms of permanent dysfunction, it is exceedingly difficult to get the public to engage in solutions thinking or to generate support for programs and policies designed to support those with FASD. The public has limited ways to think about how the life of a person with FASD could be improved; therefore, an important task for communicators is to be explicit and explanatory in their discussion of solutions.

**Seeing people with FASD as fundamentally cognitively impaired helps explain the stigma attached to this issue.** Thinking with the *Forever Damaged Minds* model, the public sees people with FASD as “other”—“their” minds don’t work like “ours.” This othering creates problems in everyday interactions, in terms of how people relate to individuals with FASD; it also dampens policy and program support, because people are not willing to advocate for or engage with solutions to a problem they see as unsolvable.

**The lack of ability to explain differential outcomes suggests a communications opportunity.** Members of the public understand that FASD does not result from every pregnancy in which a woman consumes alcohol. However, they do not know how to think about these differences and default to “fate” as their explanation. This desire to understand different outcomes is an opportunity for communicators to provide better information and explanations about how alcohol affects fetal development.

#### 4. What are the causes of alcohol consumption during pregnancy?

Members of the public rely on a number of cultural models to think about why a woman would drink during pregnancy. They then use these models to think about what causes FASD.

##### *The Escapism Cultural Model*

The public understands alcohol use as a means of escaping difficult situations and unpleasant thoughts and feelings, including stressful life circumstances, mental health issues, intimate partner violence, and the frustration that results from a chronic lack of opportunity (e.g., education, jobs, and services).<sup>5</sup> In these ways, alcohol is understood as a coping mechanism—a substance that is consumed to blunt negative emotions.

**Participant:** It seems that it’s covering a problem.

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**Participant:** People drink [alcohol] for pleasure, and some people drink it because they’re masking mental issues. If there’s depression or anxiety, I feel like it gives them a temporary feeling of feeling better.

In the same way, participants used the *Escapism* model to reason about why a woman would drink during pregnancy, though the causes were described as extreme stress, rather than a desire to relax. This is an important feature of the *Escapism* model: the public can understand drinking during pregnancy to escape from terrible situations, but the public cannot understand drinking during pregnancy as part of a relaxing social evening with friends.

**Participant:** I figure that these women are in such shitty situations and having such shitty lives and maybe that lady doesn’t want to have kids, but she is not capable of swallowing a pill every day or something. So she is going to have sex with her old man and she is going to get pregnant



again, and she is probably just going to be like “fuck me” and just tune out as much as possible. And what’s a fairly easy way of tuning out? This would be, cheque day comes around, you go get some liquor and just keep drinking.

While people think that the need to mentally escape a difficult situation is an explanation for drinking while pregnant, it is also clear, as seen in the quote above, that people still assume that ultimately the decision to escape results from a woman’s lack of personal responsibility and control. This shows, again, the dominance of the *Individualism* model and its power in focusing responsibility on women.

### The *Normalization Cultural Model*

Members of the public also explain alcohol use through the shared understanding that some people drink because “it’s all they know”; in certain communities, drinking is a cultural norm and has come to be expected behaviour.

In discussing the causes of alcohol use, participants frequently cited “cycles of dysfunction.” They explained that if a person grew up around family or community members who drank excessively, the person will see this behaviour as normal and will likely follow the same patterns as an adult. The public believes that assumptions about what is normal and acceptable stay with people throughout their lives and influence decision-making. This way of thinking was often used to explain why a woman would use alcohol during pregnancy—using alcohol is all she knows, and she regards it as normal.

**Participant:** If you’re raised in that kind of atmosphere, then that’s all you know.

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**Participant:** I guess it all depends on how they were raised and what age they got pregnant at. What they’ve seen in their home.

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**Participant:** The cycle just keeps repeating itself. When you grow up in an alcoholic household or a stressed-out household that’s poorly functioning, chances are you are going to have that kind of household yourself. And chances are your kids will. I’ve seen that.

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**Participant:** If you are a little kid growing up watching this guy slaying drugs and act like a gang member and shoot at people, what are you going to do? Nine times out of 10 you are going to grow up to be exactly what you watched. That’s what I mean by “circle.”

The models described above are all used to think about why people consume alcohol and, specifically, why women consume alcohol during pregnancy. These models were particularly prominent when participants talked about communities in poverty and Indigenous communities. In thinking that alcohol use and FASD are more common in poor communities, the public reasons that people living in poverty regularly face stressful situations and lack opportunity, and therefore they drink to escape these experiences (the

*Escapism* model). The public also reasons that growing up in poverty exposes people to the use of alcohol in a way that normalizes drinking (the *Normalization* model).

**Researcher:** Would you say that there are communities that are affected more by FASD than others? Or communities that are affected less than others?

**Participant:** Yes, I would say some communities are affected more.

**Researcher:** And why is that?

**Participant:** I think it all has to do with socioeconomic status.

[...]

**Researcher:** Okay. So, why is it that socioeconomic status would be a factor in FASD?

**Participant:** Because I think that poverty in a lot of cases leads to higher rates of alcoholism and substance abuse.

**Researcher:** And why do you think that is the case?

**Participant:** A lack of education. I think that it's, again, what you've seen while growing up, kind of copycatting what you've seen. And influences. Like the copycatting is the influences part.

For members of the public, Indigenous communities were the top-of-mind example of a group living in dire poverty that is at increased risk for alcohol abuse and, by extension, FASD.

**Researcher:** If you think of Manitoba compared to other provinces in Canada, or across the world, how common do you think it is in Manitoba specifically?

**Participant:** High. I believe it's high out there with the Aboriginal people. Lots I notice.

**Researcher:** So your experience is that it's higher in those communities?

**Participant:** Yes, with Aboriginal people, there seems to be nothing here for them.

**Researcher:** So, to the best of your knowledge what's that about?

**Participant:** Well, it's just a cycle of dad was a drunk, now I'm a drunk, and on and on, and no jobs, and settlements and things that have happened.

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**Participant:** I would assume on some of the Native reservations, [FASD] would be worse. Because you do hear that there is a lot of alcohol abuse on them. And the resources aren't there to get them the help that they need and change their living environment as a whole. Again, it's acceptable in the community. That's what the community does together. So, it just continues on and on and on.

### *The Lack of Awareness Cultural Model*

Research participants were generally aware of FASD and the effects of alcohol on fetal development, and they assumed most others were aware as well. That said, people also assume that a small proportion of cases of FASD could result from women not knowing the risks of alcohol use during pregnancy. The assumption that follows is that if these women were made aware of the risks of alcohol use during pregnancy, they would quickly choose not to drink.

**Participant:** I think you need to have the education, not just because of pregnancy, because of the harmful effects [of drinking]. You don't know what effect it's going to have.

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**Participant:** I know people that are people from reserves. I have friends who are Native, but those friends that I have were educated enough where they've had kids, and they did not drink while they're pregnant. So, they were educated.

While lack of awareness is understood to be a cause of alcohol consumption during pregnancy, people believe that lack of awareness does not release women from taking personal responsibility for their decisions or excuse their failure to exercise willpower.

**Participant:** There's enough education here, I believe, in Manitoba. You're being taught this in high school, even when I was in high school. So, if you're going to school, even if you go to those clinics to get medical help or whatever, all the pamphlets are there. There's some big signs, you know. There's prenatal courses that the government offers. It's not unheard of. It's not like we keep it all a secret and you fend for yourself. No. It's all free information.

### The *Addiction = No Choice* Cultural Model

People understand addiction as the inability to control substance use and reason that addiction explains why some women drink during pregnancy.

**Participant:** Well I'm assuming [a woman who is pregnant] is drinking because she's addicted. Like the only conscious thing I can think of is she is drinking because she is addicted. I assume everybody knows, but I'm making assumption, the effects of drinking while you are pregnant so why would you do it? The only reason I could possibly think is it's out of your control.

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**Participant:** Why would a pregnant woman continue to drink? Maybe because she might have an alcohol addiction. She might like it so much that she just can't control herself. She can't restrain herself from having it, because it's really difficult to get off of things that you're addicted to. You have to take it down a notch. But even then, if you do, you just can't really quit doing it right at once.

Addiction is understood as a disease that robs individuals of control over their actions and behaviours. It is important to note that this model is in tension with the *Individualism* and the *Rational Actor* models of behaviour, in that people understand addiction as a phenomenon in which rational decision-making and individual control are suspended. However, the *Addiction = No Choice* model is decidedly less powerful in shaping thinking than the more dominant individualistic models. In other words, while people reason that addiction explains alcohol use during pregnancy among a small minority of women, people tend to default to ways of thinking that enable them to hold the individual woman responsible.

## *Communication Implications*

**Public thinking about alcohol use as an escape presents a communications opportunity.** The *Escapism* model is a rare way of thinking that leads people to recognize how context and experiences can influence behaviour. Activating this model in relation to Indigenous communities seems particularly promising. People understand that Indigenous communities face particular challenges, and they readily see alcohol use as a way of escaping from these stresses and traumas. When thinking with this model, people are more able to consider the broader context in which actions are taken, and they do not hold women completely responsible. Communicators can expand on this model to cue a social determinants perspective on the causes of FASD and help people think about how addressing contextual sources of trauma and stress is an important preventive strategy.

**The *Normalization* cultural model creates a strong sense of fatalism about the potential of addressing the causes of FASD.** Because the public thinks that, once normalized, cycles of alcohol are repeated generation after generation, there is a powerful sense that nothing can really be done to address alcohol use—particularly in disadvantaged communities where use has been woven into the fabric of everyday life. When the public defaults to fatalism, it can be a challenge for communicators to increase support for social services and programs, as people are likely to view them as useless and as a waste of resources. Communicators need to help people see that there *are* things that can be done to address chronic alcohol use.

**The *Lack of Awareness* cultural model has mixed implications.** People assume that a lack of awareness of the potential harm of alcohol consumption contributes to a woman’s drinking during pregnancy; in other words, a woman cannot make the right choice if she does not know what the right choice is. At the same time, the public knows that there are many ways to be informed about FASD, and so believe there is no excuse for a woman to be blind to the risks. Activating this model may help people see the importance of educational efforts, but this way of thinking can also backfire in two ways: (1) it further stigmatizes those who do not know this information, as the danger of consuming alcohol during pregnancy is seen as common public knowledge, and (2) it feeds the sense that consuming alcohol during pregnancy is a completely rational decision and that a woman would drink only if she does not know about the harmful effects.

**The *Addiction = No Choice* cultural model is another potentially productive pattern of thinking for communicators to cue.** This model, which helps people think about why a woman would not be able to stop drinking if she is pregnant, cracks the assumption that individuals are solely responsible for making rational choices. Communicators can build on this model to show how supports—rather than individual willpower—are needed to prevent and address this issue. But this strategy will only be productive if communicators can clearly frame addiction as an issue that can be addressed and remediated.

## 5. What are the effects of FASD?

When people use the *Forever Damaged Minds* cultural model—perhaps the most dominant way of thinking about FASD—they understand the life trajectory of someone with FASD to be as follows: (1) the mother drinks, (2) the child is born with FASD, (3) the child has a cognitive disability and gets in trouble in school, and (4) the child becomes a dysfunctional adult. The damage incurred from prenatal alcohol exposure is understood to be severe and permanent. Once a brain is damaged in this way, there is no repairing it, and there is little that can be done to improve outcomes for the individual affected. As a result, the public assumes, these individuals experience high rates of unemployment and are prone to criminal activity.

People see the situation as unchangeable; the *Forever Damaged Minds* model leads people to the conclusion that, because people with FASD have permanent brain damage, providing social supports and resources does not make a difference. Individuals with FASD are considered a burden on caregivers, public services, and society more broadly.

**Participant:** First of all, I would say that they wouldn't be secondary school educated. They wouldn't have gone to university or college because it would have been harder for them to just get through school. I'm sure that there are higher dropout rates. So, education is a huge factor. And when we're talking about "middle age," I would say that they're probably, in a lot of cases, being taken care of by the system. So, on welfare or needing some kind of support or assistance, be it a group home or assisted living.

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**Participant:** When they're kids, I guess they would have difficulties in school and their home life. When they're adults, they could maybe lead a life of crime. They could get into trouble more easily. Crime would be a big one.

### *Communication Implications*

**FASD is seen as permanent and immune to intervention, which makes social services seem ineffective and inappropriate.** The public thinks that social services can help manage some of the effects of FASD on a person's life, but they do *not* think that these services can significantly improve outcomes. This is an important challenge for communicators to overcome by explaining *how* interventions can improve outcomes for people with FASD.

## 6. How can FASD be addressed?

When asked to think about what could be done to address FASD, participants conveyed a strong sense of fatalism. This fatalism was most clearly seen in the lack of engagement that people had in talking about

solutions, their lack of conviction that meaningful changes could be made, and their explicit opinions that preventing or remediating FASD was not likely to happen.

Analysis showed that this fatalism stems in part from the way that people see women and their decisions as exclusively responsible for FASD, and the degree to which they see selfishness and lack of willpower as difficult, if not impossible, to prevent. People reasoned that, if the causes of FASD lie in the character of individuals, there is no role for society to play. The public's fatalism also stems from people's thinking about how women might *not* be solely responsible for FASD. According to the *Normalization* model and the *Addiction = No Choice* model, alcohol use is either something that has been deeply embedded into communities over time or it is beyond individual control due to the disease of addiction. In both ways of thinking, use is impervious to any remediation. Finally, and most powerfully, when people think with the *Forever Damaged Minds* model, they believe that damage done is damage done, and that therefore there is little point in engaging with solutions. In short, the public's most dominant ways of thinking about FASD all lead to a common conclusion: there is ultimately nothing that can be done to prevent FASD or improve outcomes for those with the disorder. This heavily fatalistic perspective on solutions is a major challenge for communicators.

**Participant:** I don't know. They keep saying, educate people, but I think if it's not in them, you can educate all you want, but I don't know if it's gonna make a difference.

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**Participant:** I don't think any regulations around alcohol would make a difference. If a person wants to drink and they are 12 years old, they are going to drink. If they want to drink and they are broke and they are 40, they are going to find a way to drink. If a person is predisposed and wants to make those choices, they are going to make them. They are going to find a way to make the alcohol, or steal it, buy it, prostitute for it.

During the interviews, in response to questions and probing, participants were able to generate a set of actions that they thought could be taken to reduce the number of cases of FASD in Manitoba. Each of these ideas is informed by one or more of the cultural models discussed above. Below we discuss the solutions that participants were able to generate, and how their deeper patterns of reasoning about FASD led them to these conclusions.

### **Solution #1: Encourage pregnant women to exercise willpower and abstain from alcohol.**

Thinking with the *Individualism* model, members of the public suggest that because FASD is the result of a woman's choices, one way to address the issue is to encourage pregnant women to be more disciplined in their decision-making when it comes to consuming alcohol. Simply put, if FASD is the result of a lack of willpower, getting women to try harder to make the right decision would lead to less FASD in Manitoba.

**Participant:** In my case it's a miracle that I quit. I hear, "How did you do it? I have no willpower."

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**Participant:** Willpower is the main thing. And you need to have the friends that know that "okay, he's trying to quit drinking." So, you don't tempt them. You don't put them in those uncomfortable situations so that maybe he decides "all right, I'll have one more, and then I'll quit tomorrow."

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**Participant:** It's good to have that whole family support, intervention, to help better support the mom during pregnancy. Just make sure that she does the right choices.

### Solution #2: Educate women about the dangers of consuming alcohol while pregnant.

Using the *Lack of Awareness* cultural model, members of the public think that providing information to women might be one way of decreasing rates of FASD. In the public's thinking, one of the causes of FASD is that some, albeit few, women simply do not know about the harmful effects of consuming alcohol during pregnancy. According to the *Rational Actor* model of decision-making, if women knew how harmful consuming alcohol during pregnancy could be, fewer would choose to drink.

**Researcher:** So, what does education do? What effect would it have?

**Participant:** Hopefully it would make mothers rethink drinking during pregnancy.

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**Participant:** Again, education, programming. If they are being taught what they are doing is wrong, eventually they will gather up and say, "Wow, they are right." Once they know all the damage they can do to the little baby growing inside of them, with any human decency, you would try to stop.

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**Participant:** [A pregnant woman should be thinking about] how to solve her problems, how to change her life, how to get away from unhealthy things. How to change things so that things are better.

As discussed above, people acknowledge that there are currently many awareness campaigns and educational opportunities around FASD in Manitoba. While they can see the potential of education, people also think that information is easily accessible, and therefore they are skeptical about whether such efforts can ultimately make any difference.

### Solution #3: Shame women who drink while pregnant.

The public sees the stigmatization of pregnant women who drink as an important *strategy* to use to address, and potentially, prevent FASD. According to the *Rational Actor* model, evoking shame and stigma are productive ways to influence the rational decisions that pregnant women make. Thinking in this way, if women know that they will be stigmatized if they choose to drink, they will weigh the costs of

this choice differently and decide that the benefits do not warrant the costs. As a result, more women will decide not to drink while pregnant.

**Participant:** I think the problem we have with the society is that we don't frown upon it enough.

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**Participant:** I wouldn't like it [if I saw a pregnant woman drinking]. I would definitely give a look of disgust, maybe say something, depending on what kind of mood I was in.

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**Participant:** Even if the mom were to go into Boston Pizza Lounge and have a beer, and she was noticeably pregnant, I just think that society would be looking at her and being like "what are you doing?"

#### Solution #4: Refuse to serve women alcohol.

People reasoned that another solution to FASD would be giving those who serve alcohol the power and legal prerogative to refuse service to women who are pregnant.

**Participant:** In an ideal world, it would be nice if someone who was obviously pregnant was denied alcohol. [CHUCKLE]

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**Participant:** What should happen? Well, it would be nice if somebody could restrict her. "You can't smoke, you can't drink"—you know, that kind of thing. [...] Definitely for smoking and alcohol, I think there's something that you can do to prevent [women] from doing that—to prevent the baby from getting it later on.

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**Participant:** It's [like an] underaged type of limit. If someone's pregnant, they should be under that umbrella of not being able to be served alcohol.

This solution follows from the *Woman as Vessel* model. If the fetus is the priority and more important than the mother, it seems appropriate to limit the woman's choices and rights.

#### Solution #5: Provide support to pregnant women.

Finally, participants occasionally nodded toward the importance of providing "support" to pregnant women. Support was seen to potentially come from the family, the health care system, or social services. Though the specifics of these supports were vague, the overall goal of their provision was to help women make better choices.

**Participant:** A public health nurse should be in contact with the mother. And if that doesn't work, then the public health nurse is in contact with family members of the mother.

**Researcher:** Uh huh. And what would the family potentially do in this situation?



**Participant:** Well, they could try their best to offer advice and show the mother that they're there to support her, which could make a difference.

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**Participation:** Maybe provide some kind of supports. I don't know if there are such supports, but education, I don't know, detox.

This solution stems from people's acknowledgement that there are factors that influence women's choices. The *Escapism* model suggests that women drink to escape trauma and stress, the *Normalization* model explains that cultural norms dictate expectations about alcohol use, and the *Lack of Awareness* and *Addiction = No Choice* models suggest that there are reasons that a woman might not be able to make good choices. This is the solution that most closely approximates the preventative approaches advocated by experts. However, it should be noted that this was not the easiest solution for participants to visualize or explain during the interviews, because their thinking was so easily overtaken by fatalism about the effectiveness of social services. In short, if communicators want to be able to cue this type of thinking, they will also need to overcome people's fatalism and demonstrate that there *are* effective ways of supporting women that address alcohol use.

### *Communication Implications*

People generate a limited and patterned set of solutions to FASD issues. Some of these solutions are in line with those that FASD experts and advocates champion, while others stand in conflict with the field's core principles. Each of the solutions identified by the public is directly informed by deeper cultural models that people use to think about pregnancy and FASD, as described in detail above. This reveals an implication of utmost importance to communicators: if messages can cue cultural models that lead people to endorse the field's solutions and simultaneously avoid activating those models that lead people to endorse solutions that are at odds with those advocated by the field, public support for evidence-based solutions to FASD should increase.

Recommendations on how to accomplish these important tasks are described in the concluding section.

## Mapping the Gaps: Key Communications Challenges

In this report, we have reviewed how experts explain FASD and described the patterns of thinking that shape how Manitobans understand the topic. In this section, we note the overlaps between these expert and public perspectives and map the gaps between them to reveal important communications challenges and opportunities.

### Overlaps between Expert and Public Understandings

There are important points of overlap between expert and public understandings of FASD. These overlaps represent common ground that the field can build on to communicate key ideas about FASD and increase support for important programs and policies.

Both experts and the public share the following:

- They see FASD as **an important issue that encompasses a range of physical, neurological/cognitive, and behavioural challenges**. The public generally understands the broad contours of the disorder and its *biological* cause: prenatal alcohol exposure. However, while there is overlap in expert and public thinking about the biological mechanism, the public is less nuanced in their thinking and does not recognize the role of social factors as experts do.
- They know that **FASD is largely an “invisible disability.”** Both experts and the public understand that most people with FASD do not have distinguishing physical characteristics, and it is not always possible to know that someone has FASD based on a brief interaction.
- They see that prenatal exposure to alcohol **affects the process of fetal development**, which has long-term consequences.
- They believe that **women use alcohol during pregnancy for many of the same reasons as non-pregnant people**, especially to cope with mental health issues and stress.
- They understand that **addiction affects a woman’s ability to control alcohol use during pregnancy**.
- They think that **Indigenous communities face contextual disadvantages that translate into disproportionately high rates of FASD in Manitoba**. Both experts and members of the public understand that Indigenous communities face higher rates of poverty, isolation, and discrimination and that these experiences can contribute to FASD.

- They understand that **FASD affects communities by taxing social services**. While experts and the public share this basic awareness, the public sees this outcome as inevitable whereas experts see ways to address this problem and improve outcomes through preventive strategies.
- They agree that **social services should be available** for adults and children with FASD.
- They consider **education important to the prevention of FASD**.

These are areas where expert ideas are productively aligned with public thinking, and therefore communicators can build on this common ground to shift thinking in new directions. These are good starting points for communicating with the public about FASD.

## Gaps between Expert and Public Understandings

In addition to these overlaps, there is a set of significant gaps between expert and public understandings of FASD. Reframing strategies can help address these gaps and, in so doing, shift and expand the public discussion on FASD. Future communications research should develop and test specific frames (e.g., values, metaphors, explanatory tools, etc.) to close these gaps.

1. **Causes of FASD: Contextual and biological factors vs. Individual choices.** Experts explain that contextual factors and social determinants (e.g., the environment in which a woman lives, her past experiences of trauma, chronic stress, discrimination, etc.) and biological factors (e.g., a woman’s metabolism, sensitivity to alcohol, etc.) interact in complex and significant ways to cause FASD in some pregnancies. The public, however, using their most dominant cultural models, believes strongly that a woman’s individual choice to consume alcohol is the only relevant cause of FASD. This gap between expert and public perspectives—the focus on contextual factors vs. individual decision-making—is one of the most important challenges for framers to address.
2. **Fetal response to alcohol: Dependent on complex factors vs. Absorbed directly and dependent on fate.** Experts know that whether alcohol has a greater or lesser effect on the fetus depends on many factors, including the biology of the pregnant woman and her susceptibility to alcohol, the biology of the fetus, and the woman’s social environment (e.g., experiences of trauma or chronic stress). The public believes the fetus’s response to alcohol is much less complex. Thinking with the *Direct Chemical Transfer* model and the *Effect Mismatch* model, the public believes that the effect of alcohol on a fetus can be explained simply: a woman consumes alcohol, a fetus absorbs it, and because the fetus is so small, the effects are substantial and devastating. When the public is uncertain about why some mothers can have a drink or two during pregnancy without any ill effects, they default to “fate” as their explanation.

3. **Brains: Plastic vs. Set.** Experts know that cognitive systems show great plasticity in the early phases of development and throughout childhood. The public, however, thinks with the *Critical Moment* and the *Forever Damaged Minds* models and believes that once anything disrupts normal development, the damage is done, and nothing can change. These differing senses of the potential for change represent another important communications challenge.
4. **Safe amount of alcohol: Topic of research and debate vs. No safe amount.** Experts know that state-of-the-art scientific research has not yet reached a consensus on how much alcohol is safe (or not safe) to drink during pregnancy. The public, thinking with the *Direct Chemical Transfer*, *Alcohol Exposure Leads to Addiction*, and *Effect Mismatch* models, sees any alcohol whatsoever as deeply problematic. Therefore, the public assumes that *no* amount of alcohol is safe. Pregnant women must remain abstinent, and if they do not, they are immoral or weak.
5. **Pre-pregnancy experiences: Important to consider and address vs. Irrelevant.** Experts understand that a woman's challenges (e.g., addiction) do not simply disappear when she becomes pregnant. Comprehensive programs are therefore needed to address the difficulties she may face across many aspects of life. The public, however, thinking with the *Woman as Vessel* model, reasons that once a woman becomes pregnant, her identity changes so fundamentally that she should be able to stop drinking or cease any behaviour that may be harmful to the fetus.
6. **The role of a culture of drinking: Key factor vs. Less important.** While acknowledging that Manitoba has a culture of drinking, the public simply does not see cultural norms as requiring any adjustment or intervention. The public thinks that although some women (e.g., traumatized women, women living in poverty) might struggle to abstain from alcohol during pregnancy because they need to escape from these problems, a woman who is drinking to participate in social activities is considered selfish, lacking willpower, or uninformed. The public's *Individualism* and *Woman as Vessel* models make drinking culture almost irrelevant.
7. **Communities affected by FASD: All communities vs. Indigenous and poor communities.** Experts understand that, given Manitoba's drinking culture, FASD is the possible outcome of any pregnancy, regardless of socioeconomic status, cultural background, and race and ethnicity. The public, by contrast, thinks of FASD as largely the problem of communities living in poverty, especially Indigenous communities.
8. **Stigma: Problem to be addressed vs. Solution to leverage.** Experts stress that it is crucial that women who consume alcohol while pregnant be accepted without judgment when they seek supports. Only by lessening the sense of stigma and guilt, they explain, will women feel able to get help. This an important step towards decreasing rates of FASD. But members of the public see stigma differently. Thinking with the *Rational Actor* model of decision-making, they believe that stigma *can*, in fact, be a useful tool to force women to make better choices regarding alcohol use.

- 9. Solutions: Possible vs. Impossible.** Experts believe that people with FASD can lead productive and fulfilling lives and, importantly, that prevention is possible. The public, on the other hand, is highly fatalistic when thinking about programs and policies that might improve life for people with FASD and prevent future cases. Thinking with the *Normalization* model and how difficult it is to break a cycle of dysfunction, and the *Forever Damaged Minds* model that suggests that any damage done is permanent, people do not believe that viable and effective solutions exist.
- 10. FASD across the lifespan: Responsive to intervention vs. Immune to intervention.** The public believes that FASD is caused in the womb during development, and when thinking with the *Forever Damaged Minds* cultural model, they assume that once exposed to alcohol, damage done is damage done; FASD is thus a permanent and unchanging condition that is unlikely to be significantly affected by other factors. In other words, while the public understands that people with FASD often struggle with the challenges that experts enumerate, the public sees FASD as a condition that cannot be made better by treatment and support.
- 11. Prevention: Welcoming and comprehensive services vs. Stigma and restrictive policies.** Experts believe that to prevent FASD, it is crucial for all women to be able to access accepting, non-judgmental, and culturally competent services. Experts are adamant that stigma and shame are corrosive, counterproductive, and inhumane. Punitive practices only make it more difficult for women to get help and for diagnoses to be made. The public, however, believes that because FASD is a matter of women's individual choices, the only preventive approach that will work is to restrict those choices, either directly via policies and law or indirectly through stigma. The public believes that stigma and shame are important tools to pressure women into choosing not to drink during pregnancy. According to this thinking, if women feel strong disapproval from those around them, they are less likely to drink while pregnant.
- 12. FASD in Indigenous communities: Rooted in systemic racism vs. Based on individual choices made in difficult circumstances.** Experts explain that, to address FASD, society must address colonization and systemic racism to repair the cultural, social, and economic harm inflicted on Indigenous communities. The public believes that society must address discrimination and racism, but sees these goals as only tangentially related to FASD prevention. This, they believe, depends more centrally on women's individual choices to reject the normalization of drinking and avoid using alcohol as a means of escape. The public understands poverty and stress to be important contributors to increased rates of FASD (because stressful life circumstances lead to drinking and addiction), but ultimately remains committed to the idea that women should be able to overcome these challenges, on their own, in the service of the health of the fetus.
- 13. Responsibility for solutions: Collective vs. Individual.** Experts believe that there are important actions to address FASD that need to be taken on a national level (e.g., countering systemic racism by implementing the initiatives called for in the Truth and Reconciliation Commission of Canada). Such large-scale actions are necessary for creating communities free from the traumas of

discrimination and violence, which are an important strategy for preventing FASD. The public's thinking, however, is strongly shaped by the four foundational cultural models of women and pregnancy, each of which locates responsibility squarely on the individual woman.

## Initial Strategic Recommendations

Communicators face serious challenges in cultivating broad public support for the policies and programs needed to address FASD in Manitoba. First, the narrow understanding of FASD as a problem that results from a woman’s lack of willpower and selfish decisions limits people’s thinking on what the province can do to make meaningful progress on the issue of FASD, especially when it comes to prevention. What, the public asks, can realistically be done to make people control their behaviour and be less selfish? The strong stigma attached to FASD—which members of the public believe should be leveraged to motivate women to stop drinking—makes it even more difficult to talk openly about what can be done. Second, the public’s understanding of people with FASD as having *Forever Damaged Minds* blocks productive thinking about how wraparound social services could help people lead more fulfilling lives. For these reasons, communicating about the prevention of FASD and the provision of supportive services for those with FASD is challenging.

Overall, the public’s highly individualized understanding of the causes of FASD, and fatalism about whether anything could ever change or improve, are the two major communications challenges on this issue.

However, our research suggests that there are also productive ways that people can—given the right cues—think about FASD. While more work must be done to design and test specific reframing strategies that can best address the challenges outlined above, the following recommendations offer the FASD research and advocacy community an initial reframing strategy.

### 1. Recommendation: Reframe FASD as a contextual, not individual, issue.

The public’s thinking about FASD is deeply rooted in *Individualism*, which frames FASD as an issue of a woman’s personal decision to drink or not during pregnancy and the level of individual responsibility she exercises. Other factors are seen as secondary or inconsequential. Communicators need to root out language and images in their messages that might, inadvertently, be cuing the *Individualism*, *Gatekeeper*, *Rational Actor* or *Vessel* cultural models. They need to help people adopt a much more ecological perspective. Frames can be powerful in changing people’s default assumptions and helping them make this mental switch, and this is the most important framing choice that communicators can make.

This recommendation includes the following specific strategies that can help shift the public’s thinking from a focus on individualism to a focus on a broader context.

- **Change what FASD is “about” by using values<sup>6</sup> to redirect public thinking.** Messages about FASD are often focused on individual people and not framed with a value that orients people’s thinking about what the issue is about and why it matters. Effective values messages motivate engagement, generate a belief that problems can be solved, and increase people’s receptivity to

solutions by helping them see the purpose of specific policies and programs. While it is important to empirically test values to determine which are most effective for reframing FASD, we offer three suggestions that prior research indicates may have strong potential:

- **Interdependence:** Past research<sup>7</sup> suggests that the value of *Interdependence*—the idea that everyone in Manitoba has a stake in addressing FASD, because what affects one person affects us all—is likely to take the focus off individual women and individual people with FASD and broaden it to society. The public tends to blame women for causing FASD and see people with FASD as “other” and separate from society, but framing the issue with *Interdependence* can encourage thinking about the connections among us. An example of the *Interdependence* value is as follows: *If we are going to make progress on preventing and addressing a challenge like FASD, we need to recognize that when FASD affects one person in our province, it affects us all. We need to develop policies and programs that enhance everyone’s wellbeing across every phase of life, because we all benefit when everyone in Manitoba is well supported. The impacts of FASD matter to our whole community, and we need to work together to find solutions to it.*
- **Ingenuity:** FrameWorks research has also found that the value of *Ingenuity*—the idea that even complex social issues can be addressed with innovative problem-solving—is effective in counteracting the public’s fatalistic thinking across many issues.<sup>8</sup> This value will likely be productive in suggesting that there are things society can, and should, do to prevent and address FASD. An example of the *Ingenuity* value is as follows: *Manitoba is a province that fosters innovation in everything that we do, and our ingenuity can also help solve the most challenging issues we face in our society. To tackle a challenge like FASD, we need to harness our resourcefulness and know-how to develop and test new ideas that can create meaningful change for more people in the province.*
- **Pragmatism:** The value of *Pragmatism*—the idea that problems are solvable through realistic, step-by-step, practical, and commonsense actions—can counter fatalism by reframing the role of solutions like community-based social programs. With this value, communicators can reorient the public’s thinking about programs that people do not currently see as worthwhile or valuable, like harm reduction efforts. An example of *Pragmatism* that specifically focuses on harm reduction is as follows: *We need a commonsense, practical approach to FASD prevention. Harm reduction programs, for example, are a sensible way to address the issue. These community-based programs are accepting of all women no matter their situation, and they can help women who are heavy users of alcohol and other drugs manage their use. Through programs like these and other feasible solutions, Manitobans are working together to address FASD.*
- **Redefine FASD to highlight important social factors.** Most definitions of FASD emphasize that FASD includes a spectrum of possible effects that can vary dramatically depending on the person. However, the cause of FASD is typically described simply as “a woman drank alcohol while



pregnant,” a fact with which the public is generally familiar. Communicators should put forward a definition of FASD—in educational materials, in schools, in doctors’ offices, on websites—that describes FASD as a disorder whose causes are biological *and* social. While alcohol consumption is indeed the direct cause of FASD, a definition that focuses on consumption masks the important social factors that affect consumption and allows the public to fill in the missing details with stigma and blame directed at women. Therefore, experts and advocates need to take every opportunity to widen the lens by highlighting the social factors that play a powerful role in FASD. For example, *Fetal alcohol spectrum disorder (FASD) can result from exposure to alcohol during pregnancy. Whether or not alcohol exposure leads to FASD depends on a complex set of biological and social factors that interact in different ways for each person. Biological factors can include a woman’s sensitivity to alcohol, metabolism, and size. Social factors like chronic stress, violence, trauma, or poverty can increase the chances that a baby might be born with FASD.*

- **Use explanatory tools—like metaphors, explanatory chains, or examples—to help the public understand how pregnancy is conditioned by social context.** Communicators should clearly explain how FASD is directly related to the social environment. While developing effective explanatory tools should be a primary area of focus for future research, communicators can begin reframing immediately by using *explanatory chains* that clearly link elements of the social context to fetal wellbeing. An explanatory chain is a clear, concise, well-framed explanation of the causes and consequences of a problem, including the mechanism by which the problem is created. By making elements of the expert perspective more accessible, explanatory chains can empower people to think through an issue and address it more productively. Communicators should use explanatory chains to discuss fetal development as a process that is open to influences *outside* the body of the mother. If communicators can help shift thinking about pregnancy as a process of isolated individual decisions to one in which women’s actions are affected by context, public thinking about FASD can change dramatically. To create an effective explanatory chain, communicators should include the following components:
  - *Initial Factor:* What is the original cause of the problem? Effective explanatory chains provide appropriate background information on the initial challenge.
  - *Mediating Factors:* What does the initial factor cause? The mediating factors link the initial factor to the final consequence through explanation. This helps people see that circumstances are not inevitable—that problems have causes and solutions.
  - *Final Consequence:* What are the effects? The final consequence is the effect, result, or impact.
  - *Solutions:* What can we do? An effective explanatory chain sets up communications about solutions.

**The following is an example of an explanatory chain:**

- **Initial Factor:** The causes of FASD are complicated, but living in poverty drastically increases the chances that a woman will have a baby with FASD.
- **Mediating Factors:** Poverty is a risk factor for many reasons. For example, communities in poverty typically have greater difficulty accessing the fresh and nutritious foods and clean water that are important for overall good health and for healthy pregnancies. Other conditions related to chronic poverty—from financial anxiety to community violence to unstable housing—also generate a lot of stress, which can make people more likely to use alcohol to cope. In addition, people experiencing poverty frequently have unreliable access to the quality social services and mental health treatments that can help people cope with past and present traumas.
- **Final Consequence:** All of these poverty-related challenges can interact with one another to make FASD much more likely.
- **Solutions:** Therefore, to decrease rates of FASD, it is crucial that we take steps to alleviate poverty in Manitoba.

## **2. Recommendation: Always tell “wide-angle” stories.<sup>9</sup>**

To counter the public’s tendency to explain FASD by blaming a woman’s individual decisions, communicators must always tell stories that frame FASD as a social issue with systemic causes and collective solutions. It is quite common for stories about FASD to narrowly focus on individuals’ circumstances.<sup>10</sup> While stories often depend on the inclusion of individuals that the audience can identify with, stories must include exposition of the systems, programs, and social factors that facilitate positive outcomes (or, in contrast, that challenge positive outcomes). Social science research has found that stories that are narrowly and exclusively about individuals reinforce individualistic thinking and focus people’s attention on “character flaws” as the explanations for poor outcomes. This is particularly concerning for stories about FASD issues, because people’s foundational cultural models of women and pregnancy already focus thinking on individual willpower and character and obscure the relevant contextual factors. Instead, programs, social factors, and systems must also be characters in stories about FASD. Framing systems and contextual factors as key characters can help correct the public’s tendency to focus on individual women and their individual choices to the exclusion of social determinants.

### **3. Recommendation: Cue and expand productive cultural models to shift thinking away from individual blame and towards contextual factors.**

- **Leverage the *Escapism* model.** The *Escapism* model is clearly a part of the public's thinking about the causes of FASD, and communicators should repeatedly cue this model to reinforce the public's understanding of the importance of social factors like poverty and trauma as contributors to FASD. Activating this model can help widen the lens and making the role of context clear. This will help keep the public's thinking focused on social inequity and systemic discrimination rather than individual will and choice. Crucially, this strategy will not only enable systemic thinking but also protect against the stigmatization of women who drink during pregnancy.
- **Build on the *Addiction = No Choice* model to increase public support for services.** The public understands that addiction suspends personal control and that people dealing with addiction issues require services and supports. If addiction can be clearly positioned as a cause of FASD, and the need for support in addressing addiction made explicit, public support for FASD prevention measures should increase.
- **Use the *Fate* cultural model to pivot to richer explanations of differential effects.** The public knows that not all pregnancies in which the woman consumed alcohol inevitably lead to FASD, and therefore they understand implicitly that other factors are involved; they simply do not know what those factors could be. The public is, therefore, open to thinking about these factors, and communicators can use this opportunity to provide better information.
- **Avoid cuing *Individualism*, *Rational Actor*, and *Woman as Vessel* models, as these ways of thinking lead people to narrow views of effective solutions.** Whenever people think about a woman's choices as the sole determinant of FASD, or of choice as a completely rational phenomenon, or of a pregnant woman as a vessel, they default to solutions like evoking social stigma as a way to influence decisions, or paternalistic ways of restricting women's choices. In addition, cuing these models perpetuates the stigma that prevents many women from seeking assistance with their challenges and seeking diagnoses for children who may have FASD.

### **4. Recommendation: Counter fatalism with detailed descriptions of effective solutions.**

Helping the public overcome their fatalism is one of the key challenges that emerges from this work; the task of helping the public see that improvement is possible is more urgent than the task of making the public see FASD as a problem. Therefore, in addition to framing communications with values, communicators should reinforce the idea that positive change *is* possible by explaining the details of how

programs and policies lead to better outcomes. In general, effective solutions messages must have the following three characteristics:

- *The solution must fit the scope of the problem.* In other words, do not let the sense of the problem outweigh the proposed solutions. A problem that seems inadequately addressed by a proposed solution will cue fatalistic thinking.
- *The solution must provide a sense of efficacy.* Demonstrate that a larger issue can be fixed and show how public systems are empowered to fix these issues.
- *The solution must be presented with sufficient explanation.* Show exactly how the solution was achieved and *how* it positively affects outcomes.

For example, communicators must explain in detail how programs and policies can help people with FASD lead full lives. The public finds it difficult to think about programs that can help people with FASD have better outcomes and enhanced wellbeing, because they think that *Forever Damaged Minds* cannot be responsive to interventions. Therefore, the public needs explanations—not just lists or descriptions—of ways that supportive services and smart policies, including better diagnoses and funding for research, can be effective in improving outcomes for those affected by FASD. These explanations can provide an antidote to the *Forever Damaged Minds* model.

For example, communicators should highlight solutions<sup>11</sup> like the following:

*People with FASD may have an “invisible disability” that can include difficulties with memory and cognition, organization, and sensory overload. But the brain is always growing and changing, and innovative programs can help people with FASD manage their challenges with excellent results. For example, when young children with FASD are coached in cognitive skills like self-regulation and memory, and trained in coping with a variety of sensory experiences, their behaviour can improve tremendously over time. When these services are provided routinely and children and their families are given support and encouragement by therapists and behaviour specialists, children with FASD can learn to adapt to classroom environments and participate in a range of activities. Programs like these work for children with FASD, and it’s important that all children in Manitoba be able to access the support they need.*

## **5. Recommendation: Explain how trauma experienced by Indigenous communities contributes to FASD.**

Use the recognition that Indigenous communities face particular challenges to explain how the history of trauma in these communities is linked to FASD and can begin to be addressed with the right solutions. The public does not fully understand how factors in Manitoba’s history have led to the grinding poverty and poor health outcomes experienced by Indigenous communities; they primarily understand these concepts through the *Normalization* model. However, the public does recognize the existence of these

problems. Communicators need to explain these factors in greater detail, link them to FASD explicitly, and—importantly—show how the solutions they advocate begin to address these problems.

## **6. Recommendation: Explain how not addressing FASD on a large scale stunts society's growth.**

Emphasize the full scope of the costs of FASD, including those borne by individuals with FASD, their family members and caregivers, and, importantly, society overall. People are aware that there are costs, but they need help seeing the full range of people and institutions affected. Making this information clear should increase support for public solutions. But this information should always be accompanied by solutions explanations and examples so as not to inadvertently cue fatalism or activate thinking about people with FASD as burdening society. Pair cost information with solutions examples for optimally effective messages.

By adopting these strategies—and perhaps more importantly, using the research presented here to more strategically anticipate public thinking—communicators can begin to change the conversation on FASD in Manitoba.

## Appendix: Research Methods

### Expert Interviews

To explore experts' knowledge about the core principles of FASD, FrameWorks conducted 12 one-on-one, one-hour phone interviews with scientists, researchers, policy specialists, and advocates with expertise on FASD. Interviews were conducted from May to June of 2016 and, with participants' permission, were recorded and transcribed for analysis. FrameWorks compiled the list of interviewees, who reflected a diversity of perspectives and areas of expertise, in collaboration with Healthy Child Manitoba.

Expert interviews consisted of a series of probing questions designed to capture expert understandings about what FASD is, why it happens, what its effects are, and what should be done about it. In each conversation, the researcher launched a series of prompts and hypothetical scenarios designed to challenge experts to explain their research, experience, and perspectives; break down complicated relationships; and simplify complex concepts. Interviews were semi-structured in the sense that, in addition to pre-set questions, researchers repeatedly asked for elaboration and clarification and encouraged experts to expand upon concepts they identified as particularly important.

Analysis employed a basic grounded theory approach.<sup>12</sup> Researchers pulled common themes from each interview and categorized them. They also incorporated negative cases into the overall findings within each category. This procedure resulted in a refined set of themes, which researchers also supplemented with a review of materials from relevant literature. FrameWorks revised a draft of the expert story in response to a feedback session conducted with experts in September 2016.

### Cultural Models Interviews

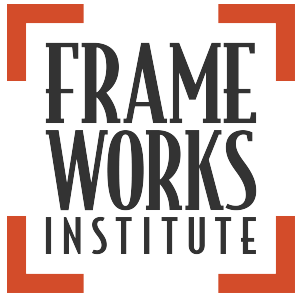
To understand the public's thinking, FrameWorks conducted 20 in-depth interviews with Manitobans from September to October 2016. Half of the interviews were conducted in-person in Winnipeg, while half were conducted via videoconference on Skype, in order to draw participants from across the province, including rural areas. Cultural models interviews—one-on-one, semi-structured interviews lasting approximately two hours—allow researchers to capture the broad sets of assumptions, or “cultural models,” which participants use to make sense of a concept or topic area. These interviews are designed to elicit ways of thinking and talking about issues—in this case, issues related to FASD. Interviews covered thinking about pregnancy generally, and substance use generally, before turning to FASD. They touched on prevalence, causes, and effects; responsibility for the problem; and solutions to it. The goal of these interviews was to examine the cultural models that participants use to make sense of these issues, so researchers gave them the freedom to follow topics in the directions they deemed relevant. Researchers approached each interview with a set of topics to cover but left the order in which these topics were

addressed largely to participants. All interviews were recorded and transcribed with participants' written consent.

Including a wide range of people allowed researchers to identify cultural models that represent shared patterns of thinking across Manitoba. Participants were recruited by a professional marketing firm and were selected to represent variation along the domains of ethnicity, gender, age, residential location, educational background (as a proxy for socioeconomic status), political views (as self-reported during the screening process), religious involvement, and family situation (married, single, with children, without children, age of children). The sample included 11 women and nine men. Of the 20 participants, 13 self-identified as "white" or "Caucasian," five as "Indigenous" or "Métis," one as "Black," and one as "Hispanic." Nine participants described their political views as "progressive conservative," eight as "liberal," and three as "Green Party." The mean age of the sample was 40 years old, with an age range of 20 to 62. Education was used as a proxy for socioeconomic status; five participants had finished high school, five had completed some college, six had graduated from college, and four had graduate degrees. Eight were married, and nine were parents with at least one child.

To analyze the interviews, researchers used analytical techniques from cognitive and linguistic anthropology to examine how participants understood issues related to FASD.<sup>13</sup> First, researchers identified common ways of talking across the sample to reveal assumptions, relationships, logical steps, and connections that were commonly made, but taken for granted, throughout an individual's talk and across the set of interviews. In short, the analysis involved patterns discerned from both what was said (how things were related, explained, and understood) and what was not said (assumptions and implied relationships). In many cases, analysis revealed conflicting models that people brought to bear on the same issue. In such cases, one of the conflicting ways of understanding was typically found to be dominant over the other, in the sense that it more consistently and deeply shaped participants' thinking.

Analysis centred on ways of understanding that were shared across participants. Cultural models research is designed to identify common ways of thinking that can be identified across a sample. It is not designed to identify differences in the understandings of various demographic, ideological, or regional groups (which would be an inappropriate use of this method and its sampling frame).



## About the FrameWorks Institute

The FrameWorks Institute is a think tank that advances the nonprofit sector's communications capacity by framing the public discourse about social problems. Its work is based on Strategic Frame Analysis®, a multi-method, multidisciplinary approach to empirical research. FrameWorks designs, conducts, publishes, explains and applies communications research to prepare nonprofit organizations to expand their constituency base, build public will, and further public understanding of specific social issues—the environment, government, race, children's issues and health care, among others. Its work is unique in its breadth, ranging from qualitative, quantitative and experimental research to applied communications toolkits, eWorkshops, advertising campaigns, FrameChecks® and in-depth study engagements. In 2015, it was named one of nine organizations worldwide to receive the MacArthur Foundation's Award for Creative & Effective Institutions. Learn more at [www.frameworksinstitute.org](http://www.frameworksinstitute.org).

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## Endnotes

- <sup>1</sup> On cultural models, see Quinn, N., & Holland, D. (1987). Culture and cognition. In D. Holland & N. Quinn (Eds.), *Cultural models in language and thought* (pp. 3–40). Cambridge, United Kingdom: Cambridge University Press.
- <sup>2</sup> See, for examples of recent research, Lindland, E., Fond, M., Haydon, A., & Kendall-Taylor, N. (2015). *Gauging aging: Mapping the gaps between expert and public understandings of aging in America*. Washington, DC: FrameWorks Institute; Lindland, E., Fond, M., Haydon, A., & Kendall-Taylor, N. (2015). “Nature doesn’t pay my bills:” *Mapping the gaps between expert and public understandings of urban nature and health*. Washington, DC: FrameWorks Institute; Lindland, E. H. & Kendall-Taylor, N. (2011). *People, polar bears, and the potato salad: Mapping the gaps between expert and public understandings of environmental health*. Washington, DC: FrameWorks Institute.
- <sup>3</sup> All participant interview excerpts have been edited to remove any personally identifying information and improve readability. To conduct the analysis, researchers worked from verbatim transcripts of the interviews.
- <sup>4</sup> See, for an example of research that discusses the concept of “incubators,” Benoit, C., Magnus, S., Phillips, R., Marcellus, L., & Charbonneau, S. (2015). Complicating the dominant morality discourse: Mothers and fathers’ constructions of substance use during pregnancy and early parenthood. *International Journal for Equity in Health*, 14(1), 72. doi:10.1186/s12939-015-0206-7. See also, for an additional discussion of the “vessel” metaphor, Rabuzzi, K. A. (1994). *Mother with child: Transformations through childbirth*. Bloomington: Indiana University Press. Discourse that compares women to “vessels,” “containers,” “incubators,” “hosts,” etc. is pervasive.
- <sup>5</sup> FrameWorks has observed a similar pattern of thinking in the U.S. public; see Volmert, A., Fond, M., Haydon, A., O’Neil, M., & Gerstein Pineau, M. (2016). “It’s a rite of passage”: *Mapping the gaps between expert, practitioner, and public understandings of adolescent substance use*. Washington, DC: FrameWorks Institute.
- <sup>6</sup> Research by the FrameWorks Institute and others strongly suggests that the best route toward changing attitudes and moving support for particular policies lies in improving issue understanding via framing. A critical part of this process is the application of the values that are inherent in all frames. Research has shown that, absent a value at the top of a communication, people struggle to see the point of engaging with an issue in the first place. Values therefore can be seen as serving as fundamental organizing principles by which people evaluate social issues and reach decisions.
- <sup>7</sup> See Simon, A. (2011). *Can redirecting values increase support for addiction policies and related issues?* Washington, DC: FrameWorks Institute.
- <sup>8</sup> See, for example, O’Neil, M., Kendall-Taylor, N., & Bales, S. N. (Eds.) (2015). *Using frames to increase understanding and support for the social and behavioral sciences: A FrameWorks strategic messaging report*. Unpublished manuscript.
- <sup>9</sup> On thematic vs. episodic frames, see Iyengar, S. (1991). *Is anyone responsible? How television frames political issues*. Chicago, IL: University of Chicago Press.
- <sup>10</sup> As Healthy Child Manitoba’s initial analysis of Manitoban news sources found, many articles about FASD focus on individuals, and individual situations, pertinent to the local community.
- <sup>11</sup> The example cited here was inspired by work described in Petrenko, C. L. (2015). Positive behavioral interventions and family support for fetal alcohol spectrum disorders. *Current Developmental Disorders Reports*, 2(3), 199–209. doi:10.1007/s40474-015-0052-8
- <sup>12</sup> See Glaser, B. G., & Strauss, A. L. (1967). *The discovery of grounded theory: Strategies for qualitative research*. Chicago, IL: Aldine; Strauss, A. L., & Corbin, J. (1990). *Basics of qualitative research: Grounded theory procedures and techniques*. Newbury Park, CA: Sage.
- <sup>13</sup> See Quinn, N. (Ed.). (2005). *Finding culture in talk: A collection of methods*. New York, NY: Palgrave Macmillan.