



Scientists, Holy Terrors and Lax Parents

How the Alberta Media Tell Stories about Early
Child Development and Its Disruptors

A FRAMEWORKS RESEARCH REPORT

Moira O'Neil • December 2010

ECD REPORT 2 OF 4



About FrameWorks Institute:

The FrameWorks Institute is an independent nonprofit organization founded in 1999 to advance science-based communications research and practice. The Institute conducts original, multi-method research to identify the communications strategies that will advance public understanding of social problems and improve public support for remedial policies. The Institute's work also includes teaching the nonprofit sector how to apply these science-based communications strategies in their work for social change. The Institute publishes its research and recommendations, as well as toolkits and other products for the nonprofit sector, at www.frameworksinstitute.org.

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior permission of FrameWorks Institute.

Please follow standard APA rules for citation, with FrameWorks Institute as publisher. O'Neil, M. (2010). *Scientists, holy terrors and lax parents: How the Alberta media tells stories about early child development and its disruptors*. Washington, DC: FrameWorks Institute.

TABLE OF CONTENTS

INTRODUCTION.....	4
SUMMARY OF FINDINGS	5
METHODS.....	6
Media Data	6
Cultural Models Data	7
Method of Analysis.....	7
FINDINGS.....	7
How Development Happens	10
Explaining the Science of Early Child Development	10
Contexts and People of Importance.....	12
How Development Gets Disrupted	17
Children’s Mental Health Issues	18
Impacts of Addiction on Child and Family Health	24
How to Address Developmental Issues	30
Developmental Problems Can Only be Treated	30
Prevention is About Education.....	34
Strong Sense of Governmental Responsibility	35
Critical Absences in Media Coverage	37
COGNITIVE IMPLICATIONS	37
Filling in the “Black Box” of Early Child Development.....	38
Exacerbating the Family Bubble.....	38
Activating Models of Mental Illness.....	39
Cueing Willpower Models of Addiction	39
Substantiating Interdependence and Governmental Responsibility	40
CONCLUSION	40
APPENDIX A: CULTURAL MODELS OF EARLY CHILD DEVELOPMENT SUMMARY OF FINDINGS	41
APPENDIX B: CULTURAL MODELS OF CHILD MENTAL HEALTH SUMMARY OF FINDINGS	43
APPENDIX C: CULTURAL MODELS OF ADDICTION SUMMARY OF FINDINGS	45
APPENDIX D: METHODS OF ANALYSIS	49
APPENDIX E: THEORETICAL BACKGROUND	50

INTRODUCTION

The research presented here was conducted by the FrameWorks Institute for the Alberta Family Wellness Initiative supported by the Norlien Foundation. The report examines the explicit and implicit messages — or “media frames” — embedded in the ways that early child development, child mental health and addiction are consistently presented to the public in Albertan newspapers and national news broadcasts. The report also employs FrameWorks’ previous cultural models research to analyze how Albertans are likely to perceive and conceptualize issues of early child development, child mental health and addiction when viewed through this media lens.¹ This media analysis is a foundational component of the larger FrameWorks investigation aimed at developing communications strategies that advance a more constructive public conversation about these issues in Alberta. The full scope of the larger study includes a wide array of qualitative and quantitative methods associated with Strategic Frame Analysis™ (SFA)² which are deployed to glean specific findings necessary to reframing.

Media analyses are an important part of the SFA approach in that they allow us to map a key dimension of what FrameWorks calls the “swamp of public discourse.” More simply put, a media analysis aims to understand the highly standardized patterns in the presentation of information on any given issue — the common streams of opinions, arguments and rhetoric that are consistently used to communicate about any given issue. Since media remains the primary source of information about public policy for average Albertans, and a key — but not exclusive — source of the cultural models used to understand information,³ media analyses are an important empirical measurement of the frames that shape public thinking about an issue. By understanding the subtle patterns in the ways the media presents issues — the media frames — media content analyses help explain both why people have stable and predictable ways of interpreting information and why messages have patterned effects on thinking.

FrameWorks conceptualizes these frames as the link between the public discourses that incessantly swirl around us as members of society, and the internal, cultural and cognitive patterns of making sense of information that we have developed over time through shared experiences. Common media frames lead to common interpretations both because of their standardized content and because repeated exposure to these frames activates and engrains a set of interpretations that over time become highly familiar, heavily practiced and easy to use in “thinking” information on an issue.

Media content analysis is a fairly broad methodological tool that can be used to evaluate the impact of media coverage in a variety of settings and on any number of issues. In this report, we apply this method to: (1) delineate the dominant frames used in media coverage of early child development, child mental health and addiction; and (2) examine how those frames shape, facilitate, constrain or otherwise affect public thinking about the causes of, and potential solutions that address these issues. Unlike more traditional approaches to media analyses, FrameWorks adds a cognitive layer to this analysis, using cognitive theory to examine the likely impacts of the dominant frames deployed in media on a public that receives a constant “drip drip” of these messages.⁴ As such, this report both underscores the agenda-setting aspects of the media coverage and captures the cultural impacts of the frames embedded within

it. In this way, we are able not only to describe habits of mind, based on our cultural models interviews, but also to begin to understand how those habits are constantly fed and with what consequence for public thinking.

SUMMARY OF FINDINGS

This report analyzes media coverage of early child development, child mental health and addiction in Alberta, Canada as they pertain to child and family health. As such, the articles sampled for the analysis are a dominant source of information and, more importantly, of narratives for the Albertan public regarding how development occurs, how it can be disrupted and what should be done to address developmental problems.

In general, the media narrative regarding how development occurs was productive. Important aspects of the core story of early child development received considerable media attention — including processes of brain development, executive function skills and positive conceptions of child mental health. Media attention to the research on how development occurs should inspire optimism among experts in developmental fields who are attempting to translate the science of these issues and widen Albertan understanding of these topics. Furthermore, the coverage of childcare demonstrates that Alberta media appropriately consider the contexts in which development takes place. Unlike in the U.S., childcare was not simply framed as babysitting in Alberta, but as an important period of development and as a key opportunity for creating positive developmental outcomes and trajectories. The “mum knows best” frame, however, was dominant and powerful both explicitly and more implicitly in these articles. Therefore, despite more robust discussions of the science of early child development relative to coverage in the United States, and the inclusion of the broader contexts in which development occurs, mothers were consistently portrayed as the responsible party for children’s developmental outcomes.

Media coverage proved more problematic in discussions of disruptions to development, such as child mental health and addiction issues. The stories that addressed these issues were populated with horrific anecdotes of out-of-control and violent children with mental health problems, or depraved parents who inflicted unspeakable harm on their children because of their addictions. In the coverage of addiction in particular, there was a noticeable lack of science and of the biological and social causes of addiction. Interventions that focused on addressing developmental problems were also conspicuously absent in the Albertan news media. The dominant focus was on intensive treatments, such as institutionalization or drug therapies, as solutions to children’s mental health and addiction issues. Preventative interventions for mental health and addiction issues were largely missing from this coverage.

The elements of the media script applied to early child development, child mental health and addiction — as well as those left out of this coverage — will affect public thinking in predictable and patterned ways. More specifically, based on theory from cognitive anthropology and our past research on how Albertans understand these issues, we argue that patterns of media inclusion and omission will

confirm and reinforce the following cultural models that Albertans employ to think about early child development, child mental health and addiction:

- (1) conceptions of mental health issues as fated and intractable,
- (2) assumptions about the singularity of parental responsibility for developmental outcomes, and
- (3) perceptions of addiction as a problem of willpower.

The reinforcement of these dominant cultural models will prove highly unproductive in translating developmental science and in facilitating the application of this science to public policy.

At the same time, the media coverage contains patterns that should function to invigorate and strengthen several promising cultural models that our research has shown Albertans have access to and can employ in thinking about these issues. These patterns include:

- (a) consistent and well-framed science reporting on early child development that fills in the black box of development, and
- (b) reinforcement of the notion that developmental issues are legitimate public responsibilities.

In the conclusion of the report, we discuss the implications of these findings for scientists, policy makers and advocates concerned about early child development, children's mental health and addiction.

METHODS

This media study and its sample selection and analytical approach are guided by the following broad research question: **What happens when dominant media frames related to early child development, child mental health and addiction come into contact with the cultural models the public uses to think about these issues?**

Media Data

FrameWorks reviewed 221 articles collected from to January 15, 2009, to January 15, 2010. The sample was drawn from the following newspapers: *The Globe and Mail*, *Red Deer Express*, *National Post*, *The Edmonton Sun*, *Edmonton Journal*, *The Daily Herald-Tribune*, *Cochrane Times*, *Carstairs Courier*, *Canmore Leader*, *The Calgary Sun*, *Calgary Herald*, *Airdrie Echo*, and *Banff Crag & Canyon*. The sample also included national newscasts from CTV Television. Articles related to early child development were identified by searching the LexisNexis database for the following terms: "early child development," "early brain development," "pre-school and development," "pre-kindergarten and

development” and “early learning.” Because of the paucity of articles captured using the search terms “early child development” and “early brain development,” the contexts in which development takes place were used to identify other pertinent pieces of media and provide a larger sample of relevant coverage on the topic of development. Articles related to child mental health were identified using the following search terms: “child/children and mental health,” “child/children and mental illness,” “child/children behavioral problem” and “child/children and mental well-being.” These were the search terms used in our analysis of U.S. media coverage of child mental health. We utilized them here in order to have some basis of comparison with the U.S. media.⁵ Again, because of the limited amount of coverage of these issues, all of the terms related to child mental health were also searched using the words “infant(s)” and “toddler(s).” Articles related to addiction were identified using the following search terms: “addiction and family health” and “addiction and child health.” In order to assess general media frames of addiction related to child and family health, we did not include search terms for specific kinds of addictions (e.g., alcohol, tobacco, gambling).

Cultural Models Data

The cultural models findings referred to in this document are based on a total of 40 in-depth interviews with civically engaged Albertans in Edmonton and Calgary on the topics of early child development, child mental health and addiction. The interviews were conducted by three FrameWorks Institute researchers from December 2009 through February 2010. Informants were recruited through a professional marketing firm to represent variation along the domains of ethnicity, gender, age, residential location (i.e., both in Calgary and in rural areas several hours drive from the metropolitan area), educational background and political ideology (as self-reported during the screening process). For a summary of the findings from these interviews, see Appendices A, B and C.

Method of Analysis

The broad research question identified above structures two more-specific research goals: (1) examine how topics related to early child development, child mental health and addiction are treated in the media, and (2) explore the likely implications of these patterns of coverage on public thinking. In order to address these goals, the analysis was divided into three stages: (1) quantitative analysis of the content of media materials, (2) qualitative analysis of the patterns of media coverage on early child development, child mental health and addiction and (3) cognitive analysis comparing the patterns of media coverage with cultural models data to assess the likely impact of these stories on the public’s thinking. Each type of analysis is explained in detail in Appendix D. See Appendix E for the theoretical background that informs this analysis.

FINDINGS

The media narratives identified in this analysis can be divided into three major stories: how development

happens, how development gets disrupted through mental health problems and addiction issues, and how to address developmental problems. Table 1 lists the sub-themes within each of these three categories and the percentage of the total sample that covers those themes.⁶ The majority of articles in the sample covered themes that were, at a more general level, related to developmental problems, including mental health issues and addiction.

Table 1: Themes in Media Coverage		
<i>Theme</i>	<i>Number of theme mentions in stories</i>	<i>Percent of stories with theme mentions</i>
<i>How Development Occurs</i>		
<i>Preschool/Childcare</i>	41	19%
<i>Science of ECD (including brain development, executive function, epigenetics)</i>	33	15%
<i>Promotion of Mental Health</i>	9	4%
<i>Child Resiliency</i>	7	3%
<i>Fetal Development</i>	3	1%
<i>How Development gets Disrupted</i>		
<i>Addiction</i>	73	33%
<i>Mental Illness/Mental Health Problems</i>	67	30%
<i>Abuse or Neglect</i>	48	22%
<i>Violence by Children</i>	45	20%
<i>How to Address Developmental Problems</i>		
<i>Treatment (Mental Health and Addiction)</i>	54	24%
<i>Drug Therapies</i>	25	11%
<i>Lack of Access to Treatment</i>	17	8%
<i>Early Detection/Screening</i>	10	5%
<i>Preventative Measures</i>	4	2%

The media coverage on these three issues was overwhelmingly episodic, meaning that development and developmental problems were primarily framed as discrete, isolated and individualistic events removed from more systemic explanations of cause, effect and solution.⁷ This trend occurred largely because of the privileging of individual stories of addiction or of a specific child's struggle with mental health issues. Furthermore, the coverage of addiction was more episodic in nature than the other issue areas (see Table 5). On the other hand, between a fourth and a third of the overall coverage was thematic to some degree or focused primarily on the more systemic aspects of development (i.e., public or policy issues), rather than on individual problems. The thematic coverage was largely made up of stories that reported the latest research about provincial or national rates of child mental health problems.

Table 2: Storytelling Style		
	<i>Number of stories</i>	<i>Percent of stories</i>
<i>Episodic</i>	96	43%
<i>Episodic with Thematic</i>	48	22%
<i>Thematic</i>	59	27%
<i>Thematic with Episodic</i>	18	8%
Total	221	

As Table 3 demonstrates, researchers and scientists were prominent messengers in these articles. This is surprising, given the fact that previous FrameWorks research on U.S. media coverage of child mental health has found research scientists in less than 8 percent of the stories. There are several factors that may explain this difference between U.S. and Canadian coverage, including more resources devoted to science coverage in the Canadian press and better pathways between the Canadian universities and research centers and the media.⁸ Media attention to the research on these issues presents an important opportunity for experts in early child development, children’s mental health issues and addiction to continue to shape Albertan discourse about these topics. It is important to note that parents are the other primary messengers on these issues.

Table 3: Messengers		
<i>Messengers</i>	<i>Number</i>	<i>Percent</i>
Research Scientists	56	25%
Parents	45	20%
Psychologists/Counselors	35	16%
Government Officials	23	10%
Teachers/School Administrators	23	10%
Law Enforcement	21	10%
Children	14	6%

In the sections that follow, we analyze the specific narratives the media uses to present the three major stories: how development occurs, how development gets disrupted and how to address developmental problems. In so doing, we focus on those aspects of media coverage that are more or less likely to promote policy thinking about early child development, child mental health and addiction.

How Development Happens

The Alberta media reviewed for this analysis consistently provided information about new research regarding early child development and the contexts within which early child development takes place. We analyze these narratives in the following sub-sections.

Explaining the Science of Early Child Development

There was significant coverage of the science of early child development.⁹ This coverage of the science included several of the key scientific principles of early child development identified by experts interviewed by the FrameWorks Institute.¹⁰ Articles stressed the importance of early brain development, described how brains are built through interaction with caregivers, and emphasized the impact of brain development on later cognitive skills. The following articles exemplify the inclusion of science messages in the reporting on early child development.

The first three years, she adds, are a critical time in a child's brain development. If you can introduce children to books, you'll introduce them to the art of language, and they'll latch onto it, first to the sounds, the rhythms, then the recognition of pictures, letters, patterns, sentences. And before you know it, they're reading. "Introducing books at an early age wires their little brains for future learning," Villeneuve says. "They'll be better learners, in all subjects, not just languages, but science, math and working out solutions to problems." It also gives them an ability to focus, and the readiness to grasp concepts more easily. "All of these things have a very tight correlation" ("Reading helps young minds blossom: Program 'wires brains' for future learning," *The Calgary Herald*, by Eva Ferguson, City & Region; Pg. B1, September 18, 2009).

Dimitri Christakis, a pediatrician and children's media expert, agrees. His recent research found that playing with simple toys such as building blocks can have a marked effect on a baby's brain development. Dr. Christakis compared two sets of parents and 18-month-old babies, one given blocks and tips on how to play with them, and one given nothing. Six months later, the group using the blocks had better language development than those who did not. "While we have no evidence that TV is beneficial, we have evidence that other things are helpful," says Dr. Christakis, director of the Center for Child Health, Behavior and Development at Seattle Children's Hospital and professor of pediatrics at the University of Washington ("Infant TV-viewing no help nor harm: Study," *The Globe and Mail*, by Tralee Pearce, Globe Life; Pg. L1, March 3, 2009).

Research on infant attachment and bonding finds it critical to proper child development, maintaining that bonding helps build important neural pathways in the brain. It also gives infants a sense of security and trust ("Hug it out, everyone: A new study is challenging the notion that infants of working moms aren't getting their requisite snuggle time," *The Globe and Mail*, by Sarah Boesveld, Globe Life; Pg. L3, July 20, 2009).

It is important to note that these articles focused on how brain development impacted IQ scores and

school achievement. That is, when answering the question of *what* develops, most articles analyzed the relationship between early developmental experiences and intellectual development. Intellectual and even cognitive development were only a small part of the developmental story as identified in our expert interviews and, therefore, while promising, the media coverage of the science appears incomplete and partial in this regard. Although limited in frequency within the larger sample, some articles discussed the importance of social and emotional development.

“We know that when children have suitable living arrangements and come to school fed, they are ready to learn and able to reach their full potential,” says Edmonton Public Schools’ City Centre Education Project principal Nancy Petersen. “We also know that nurturing the cognitive, social and emotional development of children and youth is equally as important and appreciate E4C’s ongoing efforts in this area” (“Enriching lives, strengthening community: E4C organization helps families in need,” *Edmonton Sun*, EPSB, News; Pg. F10, January 12, 2010).

There was also some reporting on the development of children’s executive function skills. In the following articles, the journalist provided a metaphor to describe how executive function skills work. In these examples, the journalists were actually addressing the mechanisms of development and attempting to translate the causal aspects of developmental science for the Alberta public. Again, while infrequent, these attempts represent promising although underdeveloped media features. By contrast, these more causal discussions were entirely absent from the U.S. media on child mental health.¹¹

Executive functions include the ability to focus and avoid distractions, to subdue inappropriate impulses and to mentally manipulate the information needed to solve a problem or complete a task. Together, they have been described as the CEO of the brain, responsible for taking the steps and marshalling the resources needed to reach a goal. Some studies have found they are a better indicator of how young children will fare in school than IQ (“See Jane run (for at least 30 minutes)/see Jane play violin (preferably in a youth orchestra)/see Jane’s grades soar,” *The Globe and Mail*, by Anne McLroy, Science; Pg. F1, November 7, 2009).

Alberta media also included some discussion of a positive conception of children’s mental health. In these discussions, “good” mental health was not described as a given or a default mental state, but as something that is achieved through positive developmental experiences. Once again, while these were relatively rare features of the coverage, they nonetheless represent important steps towards translating and incorporating developmental science into public understanding in Alberta.

Cathie Pelly, a parenting expert with Parents and Children Together in Calgary, said she doesn’t think having one parent at home necessarily guarantees a nurturing upbringing. “I think the important thing is attachment. Every child needs to know that they’re cared for, they’re loved and they have to have a sense of security,” she said. “So if we’ve got them in a daycare and but there’s no connection, then that’s a problem. But it’s also if they’re at home and there’s no real connection and there’s resentment, then that’s a problem. There is no one way to do

it. There's loads of different ways to get to the end result, which is a happy, healthy child" (Alberta minister apologizes to those offended by remarks on child-rearing, CBC NEWS, June 18, 2009).

She says parents are relieved that the competition level is decreased, and that they don't have to desperately scan the house for something interesting to present. Instead, the children are encouraged to share their experiences related to an item or event. "Kids try to outdo each other in show and tell, so we have sharing circle instead," she says. "A child may bring in something, or talk about something as simple as going to Grandpa's house. Then we ask if there are any questions or comments from the other kids." What happens then, according to Gateman, is almost magical. "It's not about the object. It's the experience you have with the object. The child becomes proud and that breeds confidence," she says. "Then we find the most introverted kids will put up their hand and have something to add. We may even delve deeper and make the subject a part of the curriculum" ("Sharing circles curb bragging: Children encouraged to talk about experiences," *The Calgary Herald*, by Donna Gray, Neighbours; Pg. N13, March 5, 2009).

As evidence mounts that eating as a family can protect children from all sorts of harm, experts say the bonding and connectedness that comes with regular family meals may positively influence the brain development of kids. Studies have found that by adolescence, the more often a family eats together the less likely children are to smoke, use alcohol and drugs, suffer from an eating disorder or consider suicide. Family meals have also been linked to higher self-esteem and better performance at school. There isn't a cause-and-effect relationship. Still, the correlations are strong enough for researchers to say regular family meals offer a protective effect. Now, they want to find out why ("Chewing over the benefits of family meals: children who eat with their parents have more self-esteem and, some scientists say, better brain development," *The Globe and Mail*, by Anne McIlroy, Science; Pg. A1, September 12, 2009).

As the above excerpts demonstrate, the Alberta media not only dealt with scientific concepts of development, but also the contexts and people who are important in developmental processes. However, these discussion, as we detail in the next subsection, reveal more problematic aspects of media coverage on early child development.

Contexts and People of Importance

As Table 1 in the previous section demonstrates, 19 percent of the sample mentioned issues related to daycare and preschool. Furthermore, daycare and preschool were presented as important contexts of development. That is, in the Alberta media, daycare and preschools were described as more than providing babysitting for parents who work, but as developmental opportunities in which early learning and the development of skills take place. This was especially important when journalists turned their attention to the benefits of early education programs for children living in poverty or for those children

requiring more specialized services.

Too many Calgary children from low-income families are falling behind academically despite poverty advocates' initially successful intervention, says the program's proponents. Just 25% of youngsters who enrolled in the Calgary Urban Project Society's (CUPS) pre-school program maintained significant gains in language skills a year after they left it, says a University of Calgary study. The pressures of being brought up in destitute households more prone to violence, addiction, stress and neglect make it more likely such children require intervention and an extension of it, said Karen Benzies, a U of C nursing professor. "Once those intensive supports are removed, those children don't sustain their gains," said Benzies. "We know when the children leave the program, they are better off for it." ("Poverty affects children's grades," *Calgary Sun*, by Bill Kaufmann, NEWS; Pg. 8, March 11, 2009).

This school year, Edmonton Catholic Schools embarked on an entirely new area in our world of pre-Kindergarten entitled: Preschool Outreach. The program is an attempt to provide wrap-around services to go where 2 to 4 year old children are naturally in their community, rather than have the children take buses to segregated early learning programs. These wrap-around services are educationally based, and include multi-disciplinary services such as speech-language pathology, occupational therapy, physical therapy, adapted physical education, behavior therapy, psychology and family school liaison workers who work with children in an inclusive, classroom setting ("Pre-school outreach programs help children succeed," *Edmonton Journal*, Special Section; Pg. T16, August 9, 2009).

At least one article covered how quality daycare provides resources and support for parents to develop their child-rearing skills.

Her aunt, a retired elementary school teacher, advised MacNeil the best thing she could do was spend 10 to 15 minutes every day reading with her little boy. The Early Learning preschool program at the Centre For Family Literacy provided her with other skills. So far, so good. "Brian loves someone reading to him and can't wait to learn how to read himself," MacNeil says. It's interesting, Lemieux notes, that a lot of people read because they have to get through school. "They have no love for it, they struggle with it, and when they finish school and don't have to practise their reading, what skills they have, disappear. You have to use reading skills all the time or you lose them" ("Literacy journey begins at birth; Canadians in denial about high numbers of adults unable to read," *Edmonton Journal*, by Chris Zdeb, Pg. A2, September 23, 2009).

The above article represented early child educators as professionals with expertise from which parents can benefit. In fact, daycare providers and early child educators were consistently described as more than glorified babysitters. A few stories directly addressed the educational requirements for these care providers, standards of professionalization including the need for wages that are commensurate with

providers training and experience, as well as specific curriculum development for young children.

There was a time, as recently as the 1970s, when nursery school teachers had to possess only one qualification. They had to be at least 16 years of age. Early childhood education has changed considerably since then. Not only has society shunned the infantile word “nursery” and adopted the more sophisticated term “preschool”, teachers are now required to take post-secondary education (“Teacher credentials have seen dramatic changes: Early childhood development an education in itself,” *The Calgary Herald*, by Cindy Stephen, Neighbours; Pg. N16, February 19, 2009).

The Grande Prairie Friendship Centre’s Aboriginal Head Start Program has received accreditation from the Alberta Association for the Accreditation of Early Learning and Care Services. This makes the program the first licensed child-care program with a Head Start Program (HSP) in the province. Lee Ann Murphy, program co-ordinator, said this means the centre can show evidence it is operating with a high level of excellence. “It’s very nice,” said Murphy. “With the accreditation, all my staff who have level one to three, receive the wage enhancement which is very nice” (“‘Best care possible’: HEAD START: Grande Prairie program gets accreditation,” *The Daily Herald-Tribune*, by Crystal Rhyno, News; Pg. 5, April 9, 2009).

Finally, several pieces in the sample argued that provincial governments were responsible for ensuring that quality daycare was available and that the care was affordable through government subsidies. In fact, several journalists commented on the negative impacts of the increased privatization of daycare services throughout Canada.

More than 9,400 new child-care spaces were created in Alberta in the past 12 months, bringing the province more than halfway to its three-year goal of 14,000 new spaces, the government said this week. “What we’re hearing from operators around the province is that the pressures have decreased somewhat,” said Traudi Kelm, president of the Day Care Society of Alberta. “We have to attribute that to the creation of almost 10,000 new spaces, which is wonderful for our families to be able to access licensed care.” Last May, as many parents around the province struggled to find day care, day homes or after-school care centres with space for their children, the province unveiled its three-year plan to improve the number of quality child-care spaces (“New spaces a boost for child-care system,” *Edmonton Journal*, by Sarah O’Donnell, CITYPLUS/ALBERTA; Pg. B4, May 14, 2009).

For years, the YMCA wanted to open an out-of-school care centre in the Rundle Park neighbourhood. The need was there. The children were there. But the non-profit organization could not afford the startup costs for a child-care program for school-aged children before and after class. The same story played out across the city. “We couldn’t open centres in high-needs areas because we couldn’t recoup the costs,” said Annalise Yudza, manager of the YMCA’s child-care services. That started to change last fall when the YMCA tapped into \$242 million

set aside by the province to spur the creation of 14,000 child-care spaces in three years. In May, Alberta's Children and Youth Services department announced that in the first year of its plan, it added 9,400 new spaces in day cares, after-school care programs, preschools and group homes ("Seed money for care centres 'a gift': Provincial funding helps to get out-of-school programs up and running for children," *Edmonton Journal*, by Sarah O'Donnell, NEWS; Pg. A1, July 13, 2009).

The ideas that daycare and preschool are contexts in which development occurs, that providers need specialized training in order to acquire specific types of expertise that can benefit children and their parents, and that public financing of early child care is a key determinant of impact are positive aspects of the Alberta media coverage. This would suggest that the public discourse in Alberta is likely to reflect an appreciation for the contexts of development beyond the home.

Despite the focus on multiple contexts in which development takes place and the implicit assumption within these articles that Canadian or provincial governments are responsible for developmental outcomes, there was nevertheless a strong presumption and assertion that mothers are the best if not exclusive caretakers of their children, that they can and should provide such care and that they bear the brunt of responsibility for outcomes. Childcare was frequently framed as a necessary but inevitably second-best option for child-rearing. "Mum knows best" was a persistent theme in the media narratives about early child development. Previous FrameWorks research has shown that Albertans can easily think about child development as the sole responsibility of parents, which occludes the role of public policies in addressing development.¹² The "mum knows best" media narrative will likely cue these available individualist explanations of developmental outcomes. Several articles covered minister Iris Evans' public statements that women working outside of the home were the root of mental health and addiction problems in children.

Evans triggered a flurry of protest and praise on Wednesday following her speech to the Economic Club of Canada, where she referenced the choices her sons and their partners have made when it comes to raising their children. "They've understood perfectly well that when you're raising children, you don't both go off to work and leave them for somebody else to raise," Evans said Wednesday. She apologized afterwards if people misinterpreted her remarks as critical of people who pay for child care and followed up with a written statement on Thursday saying she did not intend to suggest there is only one way to raise a child. Those remarks, along with comments linking mental illness and education, have prompted hundreds to write into online forums and engage in fierce debates over the pros and cons about the delicate balance parents strike between work and home ("Evans seeks to calm critics after igniting parenting choices debate," *The Calgary Herald*, by Sarah O'Donnell, NEWS; Pg. A4, June 20, 2009).

Even though the article acknowledged the protest around such narratives, the basis of such protests was not explained, leaving the idea that mothers are culpable for negative developmental outcomes uncontested by science or a counter-narrative. The presumption that children are more successful when

cared for by their mothers was also communicated in other subtle ways. For example, the following article reported on a study that found that infants in daycare get just as much “cuddle time” as those who stay at home with their mothers. Cuddling with infants was reported as being a critical interaction that promoted children’s development. Despite the report’s focus on daycare settings, the article began with the following anecdote.

Finch Giannetta is a squirmy, vivacious 10-month old. His mother, Kate, is constantly wrapping him in tight little hugs — if only to save him from falling on his diaper-padded bum or bonking his faux hawk-coiffed head. She also holds him tenderly, most often when she’s breastfeeding — one of the only times he’s calm and quiet. “Right now, cuddle time is 12 hours a day,” says the Toronto stay-at-home mom. She learned the importance of physical bonding in prenatal classes before her five-year-old daughter Emilia was born, she says. “That’s a definite reason why I wanted to stay home, because they would have more of me.” To her surprise, an Australian study has found the babies of working mothers are getting the same amount of cuddle time as infants of stay-at-home mothers — an average of 138 minutes a day. Also equal was the amount of time babies were talked to, read to and sung to (“Hug it out, everyone: A new study is challenging the notion that infants of working moms aren’t getting their requisite snuggle time,” *The Globe and Mail*, by Sarah Boesveld, *Globe Life*; Pg. L3, July 20, 2009).

While the story was intended to convey the comparability of care that children receive by their mothers or in daycare settings, the message of the story was overwhelmed by the initial focus on the mother and child bond. The following article advocated for the expansion of early child care services, but nevertheless described children as suffering from the demands placed on dual working-parents.

Still, the debate about whether our children are suffering the consequences of this dual working-parent world is legitimate. Are they safe? Emotionally secure? Intellectually thriving? We need to keep finding new ways to make sure they have the attention, stimulation and emotional security they need to grow into healthy and productive adults and not just hark back to the old ways (“Childcare is key. Good parents are, too,” *The Globe and Mail*, by Judith Timson, *Globe Life*; Pg. L1, June 22, 2009).

In a similar vein, several articles also covered the “mummy wars,” or the supposed conflicts between women who stay at home with children and those who work. These stories focused on the impact mothers’ “choices” on their children and explained mothers’ decisions as motivated by financial reasons. The underlying assumption evident in and reinforced by this coverage is that children’s development would be better supported by mothers who would (and according to the underlying assumption, should) stay at home if it were not for their greed. By framing this issue as a lifestyle choice, it obscured the structural conditions that require two incomes for families. Perhaps more importantly for this analysis, the underlying assumption was that children inevitably suffer or are disadvantaged when they are cared for in contexts outside their homes. For example:

The tussle between moms who stay at home to care for their children and moms who head to the office has historically divided women: Stay-at-home moms resented working moms for shipping the children off to daycare in pursuit of the almighty dollar and professional satisfaction. Working moms resented stay-at-home moms for wasting their potential and perpetuating the housewife stereotype. But in recent years, Canadian mothers say, the conversation about child care choices has become more conciliatory in tone. As the work force has changed, moms are more polite and respectful of the decisions they make for themselves and the ones life makes for them. Mothers who spend their days in cubicle land are friends with moms who spend them on the playground — and they know full well they may eventually switch places (“Mommy wars: For years, it simmered quietly under the surface — until fresh fuel reignited the age-old us-versus-them debate: What’s in the best interest of the children?”, *The Globe and Mail*, by Sarah Boesveld, GLOBE LIFE; Pg. L1, June 22, 2009).

Media narratives about how children develop were in general very productive in Alberta. There was some significant coverage of the importance of brain development as it relates to developmental outcomes. Development was not framed solely in terms of intellectual development and school performance, but included emotional and social measures, albeit in limited amounts. There was also a sensitivity to the contexts in which development occurs. However, and despite this more scientifically-consonant coverage, mothers were overwhelmingly framed as the most effective caregivers, placing responsibility for appropriate child-rearing within the home. Again, this occludes for the audience the role that larger communities and institutions play in developmental issues, even in affecting the mother’s ability to “choose.”

How Development Gets Disrupted

Despite the use of search terms designed to capture positive conceptions of child development and child mental health, most of the coverage sampled emphasized children’s developmental *problems*. Children’s mental health problems and issues related to addiction frequently appeared as the ways in which children’s development could be derailed or disrupted. In this section, we detail how the media characterized mental health and addiction problems and the causes of these issues. We also discuss the ways that the Alberta media frames effective solutions and, finally, how responsibility for those solutions is portrayed. As discussed below, while most of the coverage is unproductive in its focus on negative examples of development derailed and dramatic mental health and addiction issues, there are some more-promising aspects of the coverage that experts and advocates might work to expand and invigorate in the media.

Children’s Mental Health Issues

Mental health *issues* were generally translated as mental health *problems* and characterized as disrupting development in children. While none of the articles offered comparative data with earlier time periods, these articles conveyed a strong sense that children’s mental health issues are a growing problem in

Canada and that these increasing rates have been going unnoticed by educators, policy makers and others concerned with issues of children's health.

About 6,000 youth in B.C. are on antipsychotic medications and prescription rates have been soaring in the past five years, according to the study. Between 2002 and 2006, prescriptions of atypical or second-generation antipsychotics for B.C. youth rose by about 22 per cent, from one in 200 youth to one in 154 ("Children on antipsychotic drugs more prone to diabetes: Canadian study," *Vancouver Sun*, by Kelly Sinoski, November, 11 2009).

A new study that indicates 15 per cent of preschoolers have atypically high depression and anxiety is a wake-up call to teachers and parents, two psychologists said Friday. The study, published in the September issue of the *Journal of Child Psychology and Psychiatry*, was based on at-home interviews, over six years, with a representative sample of 1,759 mothers of Quebec-born children ("Quebec preschoolers suffer from depression: Study finds 15% anxious, nervous, worried, fearful," *Edmonton Journal*, by Irwin Block, NEWS; Pg. A8, August 29, 2009).

But she never imagined a baby or toddler could be depressed. According to new research, it's not only possible, it's more prevalent than most believe. A Quebec study followed more than 1,700 children from five months to five years and documented behaviour changes. Of that group, 264 children, or 15 percent, had high levels of depression and anxiety. The researchers identified two factors that separated the depressed children from the others. One, a difficult temperament shown as early as five months old, and, researchers found, about five percent of the depressed and anxious children had depressed and anxious mothers ("Childhood Depression," CTV NEWS, August 28, 2009).

As is demonstrated in the above examples, rates of mental illness were reported using several measures, including rates of drug prescriptions, behavioral problems and prevalence of specific symptoms. These rates were presented as "wake-up calls" and illustrated the media's attempt to shine a light on an issue that, according to the authors, most people do not see as a prevalent problem.

Journalists also frequently relied on vivid depictions of children suffering from mental health issues. In this way, media painted a dramatic, vivid and sensationalized picture of who the mentally ill or developmentally disabled child is and how he or she behaves. These accounts were both extreme and centered narrowly on behavior as the outcome and symptom of problems. Table 1 indicates that 20 percent of the stories mentioned children's violent behavior, from physically attacking parents and peers to homicide and suicide. The stories of children with mental health issues tended to focus on extremely disruptive and violent children, as the following quotes illustrate.

They are our lost children. Not cute, cuddly babies with sad eyes, but hard-to-handle, at-risk teenagers, the kids too mentally ill, too self-destructive, too neurologically compromised to live

in regular foster care or group homes. For these teens, Bosco Homes provided a last chance. A chance to recover from addictions. A chance to get treatment for depression, schizophrenia or bipolar disorder. A chance to get therapy and training to cope with fetal alcohol syndrome and other brain damage. A chance to recover from the psychological trauma of physical or sexual abuse (“Where do damaged kids go when their last chance is gone?” *Edmonton Journal*, by Paula Simons, CITYPLUS; Pg. B1, September 12, 2009).

A young woman convicted in the golf course sex-slaying of 13-year-old Nina Courtepatte got into drugs, prostitution and a vampire cult after being badly abused as a child. That’s what emerged in court yesterday at a youth court sentencing for the 20-year-old, nicknamed Buffy. According to a pre-sentence report and psychiatric assessment prepared on the city woman, who cannot be identified because she was 16 at the time of Courtepatte’s April 3, 2005, killing, Buffy grew up in a broken home. “(She) is the product of severe neglect, as well as physical, sexual and emotional abuse,” says the pre-sentence report, documenting reports of her being denied food, beaten and made to lick urine off of a carpet (“Girl who knifed Nina was into drugs, vampires,” *Edmonton Sun*, by Tony Blais, NEWS; Pg. 13, May 13, 2009).

Dawn Shippien doesn’t deny that her boy can be disruptive in his Grade 2 class. She admits Dylan Gale acts out by making strange noises and can react violently if he feels trapped. The eight-year-old has obsessive-compulsive disorder and oppositional defiant disorder and is waiting for an assessment for autism. At the suggestion of his school, Ms. Shippien agreed that her son could occasionally be put in a time-out room. But the mother in Windsor, about 65 kilometres northwest of Halifax, didn’t know what school officials had in mind (“Mother furious after school confines son: Troubled eight-year-old’s ‘time-out’ room was a storage closet,” *The Globe and Mail*, by Oliver Moore, National News; Pg. A8, March 6, 2009).

There was a very high-profile American case where a 10-year-old boy took his mother’s handgun . . . went out to his father’s car and shot him dead (“More couples abusing kids through ‘parental alienation,’” CTV Television, March 27, 2009).

Children suffering from mental health issues were, quite literally in some cases, portrayed as monsters wreaking havoc on the lives of their caretakers and those closest to them.

Children diagnosed with mental illnesses or other kinds of mental health problems were also represented as posing serious danger to members of their community and to themselves. Media coverage of child mental health also focused on youth suicides and attempted suicides. For example, the following excerpt reported on high rates of suicide in a native community:

In Nunavut, where Mr. Harper will spend five days, the number of suicides among boys aged 15 to 19 is 40 times higher than in the rest of Canada. Although the rate of suicides for that age group decreased in the past five years, the suicide rate more than doubled for 10- to 14-year-old

boys over that same period (“Life on the mean streets of Iqaluit: A photo of two 10-year-old boys sleeping outside in Nunavut has sparked debate about the region’s social problems,” *The Globe and Mail*, by Anna Mehler Paperny and Sara Minogue, National News; Pg. A8, August 15, 2009).

It is astounding to note that none of the stories included in this sample questioned the conflation of violence and mental illness by including statistics or context about how common it is for mentally ill or disabled children to engage in violent acts. Rather than giving a realistic account of the lives of the majority of children with mental health issues, these stories focused on extreme cases in order to underscore their point as cautionary tales, warning the Albertan public of what could happen if these children are left untreated and ignored. In fact, the conclusion of several of these kinds of stories was to ask the public to imagine the kinds of dangers these children might pose when they reached adulthood.

Mental illness is just that — an illness. For some young sufferers, going without proper diagnosis and treatment might “merely” mean months of quiet personal misery. In other cases, it can amount to a death sentence’ whether we’re talking about suicide, drug overdose, or an act of violence that kills or maims another. Treating children with mental illness while they’re young can eliminate years of unnecessary suffering. Waiting until they’re adults, with even more serious and intractable problems, helps no one (“\$50 million for kids’ mental health care in limbo: Promise to fund services put on back burner after superboard established,” *Edmonton Journal*, by Paula Simons, Cityplus; Pg. B, October 8, 2009).

Doctors say the findings are troubling on several counts. Low self-esteem increases the risk of anxiety, sadness, loneliness, nervousness and depression, and makes children more vulnerable to drug and alcohol abuse and “self-destructive” behaviour, including suicidal thinking, when they are older (“Child obesity promotes low self-esteem,” *The Calgary Herald*, by Sharon Kirkey, NEWS; Pg. A13, June 18, 2009).

The rates of mental health problems in children, coupled with individual stories of violent or potentially violent actions by children suffering from these conditions, appear to be aimed at raising awareness about children’s mental health issues. Yet, these stories have both positive and problematic implications. On the one hand, these stories make this issue visible and explain that children do indeed experience mental health problems. On the other hand, sensationalized stories of untreated mental health issues in children often constrain the conversation about what kinds of interventions are possible and effective, as discussed in greater detail in later sections of this report. Furthermore, these stories make it difficult to conceptualize positive states of mental *health* and oversimplify issues of mental illness variability in terms of chronicity and severity.

In addition to defining or characterizing and providing conceptualizations of mental health issues in children, some stories specifically discussed the *causes* of mental health issues in children.

Table 4: Causes of Mental Health Problems/Mental Illness		
	<i>Number of stories</i>	<i>Percent of stories about mental health (n=67) with mention</i>
<i>Parenting Styles</i>	21	31%
<i>Abuse/Neglect</i>	13	19%
<i>Genetic/Epigenetic</i>	12	18%
<i>Maternal/Paternal Depression</i>	6	9%
<i>Social Stressors</i>	6	9%
<i>Television</i>	2	3%
<i>Trauma (non abuse)</i>	1	1%

Similar to the media portrayals of how children develop, there was a robust discussion of the science of child mental health issues, including several articles explaining epigenetics. These stories dealt primarily with describing the impacts of childhood abuse on children’s mental health.

Beaten or sexually abused children are more likely to show accelerated aging of cells later in life, a condition linked to higher rates of cancer and heart disease, according to a study released on Friday. Investigators found that the natural process by which protective “caps” on the end of chromosomes, called telomeres, are worn away as humans age was accelerated among adults who had suffered such trauma in childhood. Earlier studies had shown that psychological stress elevates risk for a wide range of diseases and mental conditions (“Abuse may shorten cell lifeline,” *Edmonton Journal*, BODY & HEALTH; Pg. A, November 21, 2009).

Abuse is believed to be prevalent with as many as 10 to 15 per cent of children physically or sexually abused, says Meaney. “It’s tragic,” he says. The new findings point to how insidious the impact can be. They also provide clues for better understanding the neurological impacts and devising treatments to reverse the damage, says Meaney. Meaney and his colleagues have long been intrigued with resiliency, and how genes and environmental factors interact. They specialize in “epigenetics” which explores how the genes we inherit from our parents are altered and turned on and off by exposures and experiences through life (“Abuse alters children’s genes: Study: Changes leave them unable to cope later in life,” *The Calgary Herald*, by Margaret Munro, NEWS; Pg. A4, February 23, 2009).

While these stories mention environmental causes of children’s mental health issues in passing, reporters and messengers provided narrow definitions and concepts of a child’s *environment* for the media-attentive public. The following two excerpts demonstrate this constrained definition of *environment* in the Alberta media. Environments were either limited to exposure to environmental toxins or to the child’s immediate family. Defining environments as such left out discussions of other key contextual

factors such as resources, systems and community supports.

He says the new study tries to tease out how one of life's most profound experiences — the quality of parental care and family life — can “literally affect the genome and its operation.” It grew out of the McGill group's research which showed parental care in rats impacts not only behaviour but also the genes of their offspring. Baby rats that were licked more — the rodent equivalent of hugs and good care — grew up to be more assertive and confident than unlicked pups. The researchers showed that neglect altered an important stress regulation gene in the rat brain, a change that lasted into adulthood (“Slim chances: Eating disorder third most common chronic illness in teen girls,” *The Daily Herald-Tribune*, by Marilyn Linton, LIFESTYLE; Health; Pg. 25, February 6, 2009).

The difficulty is translating the method into subjects that are living, he said. “Obviously, if there were some kind of marker that you could check in individuals to see if they are more at risk [for suicide], it might aid identification. It might also be used as a potential marker to follow people.” Dr. Strauss said such a test would allow doctors to see if epigenetic changes that occurred as a result of early trauma had “switched back,” at which point drugs or other therapy could be reduced in frequency or intensity. Dr. Szyf said the optimistic message from the study is that changes in the function of genes transformed by environmental factors are potentially reversible. He noted it's well known that toxic chemicals like lead, mercury and PCBs can alter the function of a person's genes and result in disease, including some cancers. “But it seems that social exposures are as toxic and can cause exactly the same kind of changes,” Dr. Szyf said. ‘And we should be aware of the impact a bad social environment can have on our health’ (“Genetic risk for suicide linked to child abuse,” *The Globe and Mail*, by Sheryl Ubelacker, *Globe Life*; Pg. L4, February 24, 2009).

In the second article, the scientist referenced “social environments” but the reporter did not follow up with information about what those might be. This is a missed opportunity for the introduction of extra-familial contexts as key factors shaping child mental health and developmental processes and outcomes. This is likely due to the fact that this is a story about new research that requires scientists to broaden the lens themselves, providing ample example of factors outside the “family bubble.”

Although discussion of epigenetics could lead to a more robust discussion of the social determinants of health, there was only one story that connected children's mental health issues to economic stressors affecting their environments.

As the economy stagnates, the number of children and adolescents suffering mental-health problems is soaring, and no place knows it better than Windsor. New data out of Windsor, an auto town hit early and hard by the recession, show that demand for mental-health services jumped 50 per cent last year. There is also anecdotal evidence that this increase has continued unabated as the local economy sputters — a portent of things to come across the country

(“Recession taking toll on the young: As parents lose jobs, demand soars for mental-health services for children in hard-hit Windsor,” *The Globe and Mail*, by André Picard, National News; Pg. A4, April 13, 2009).

This was the only story that attempted to place the reported increase of children’s mental health issues in a social, political or economic context. And while the science-based stories about children’s mental health leave room for a discussion of environmental factors, there was no attempt in the media to broadly define environments. This represents fertile ground for expansion in the scientists’ explanatory frameworks, as journalists appear receptive to the science story but lack the expertise to connect it to this “big picture” view.

The most frequently cited cause of children’s mental health issues was some kind of action or behavior *of the parent*. While parents were not directly mentioned in the science-based stories of abuse and neglect, other stories directly discussed abusive and neglectful actions of parents. In addition, as will be discussed in the next section, “monstrous” parenting was an even more prevalent theme in articles that dealt with addiction directly.

The blame for childhood obesity lies squarely on the shoulders of parents, who must wake up and realize the depth of harm they are causing their children when they allow them to eat poorly and gain excessive weight. The damage is both physical and psychological, according to a new Statistics Canada study that is one of few to measure the mental health consequences of childhood obesity. It found obesity is not a symptom of low self-esteem, but rather the cause. Depression in overweight children begins as young as 10, with obese children nearly twice as likely to report feelings of low self-worth than their counterparts who are at a normal, age-appropriate weight. It is tragic. Feelings of self loathing worsen during the adolescent years if nothing is done about it. Doctors have already identified a disturbing rise of physical consequences — Type 2 diabetes, high cholesterol, high blood pressure and fatty liver disease — in obese children (“Parents to blame for fat kids,” *The Calgary Herald*, Editorial Page; Pg. A16, September 18, 2009).

We also face a formidable social challenge — one with no easy answers. A significant minority of children fail to thrive in school. These are generally not the children of anxious parents who buy Baby Einstein videos. They tend to be children who come from chaotic, poor, single-parent homes with uneducated mothers, and no books. They need special help. But what? (“Mental-health advocates hail \$5-million Thomson donation: Gift will fund new CAMH facility to help youth who suffer from addictions and mental illnesses,” *The Globe and Mail*, by Jill Colvin, Pg. A8, June 29, 2009).

Parents were not only blamed for neglecting their children, but child mental health issues were also connected to “over-parenting” and other kinds of deficient parenting.

As to what lies behind childhood anxiety, Montreal psychologist Abe Worenklein noted many preschoolers are “over-programmed.” “They’re being put under a tremendous amount of pressure to achieve certain milestones at earlier and earlier ages.” Busy parents also are spending less time with their children and there is more family conflict, Worenklein said (“Quebec preschoolers suffer from depression: Study finds 15% anxious, nervous, worried, fearful,” *Edmonton Journal*, by Irwin Block, NEWS; Pg. A8, August 29, 2009).

Soft parenting has created a generation of spoiled brats, according to Maggie Mamen, author of *The Pampered Child Syndrome: How to Recognize It, How to Manage It, and How to Avoid It*. Holy terrors and their lax parents are disturbing the peace in airports and restaurants, grocery stores and schools, she says. The Ottawa-based psychologist treats children diagnosed with depression, anxiety, attention-deficit disorder and behavioural problems. In many cases, Dr. Mamen says, her patients are not suffering from actual mental disorders — they’re showing the effects of spineless parenting. “There are parents who will not say no to their child because they truly believe this is bad for their child to hear” (“Bratty backlash,” *The Globe and Mail*, by Adriana Barton, Globe Life; Pg. L1, November 30, 2009).

Child mental health issues were presented as serious problems in need of public attention. The narrative chosen to bring attention to these issues, however, often resulted in sensationalized stories about the lives of children with mental health problems. Compared to the U.S. media, scientists and researchers were important messengers in many Alberta stories, with more information available about the science of child mental health. However, the science story was incomplete in that the discussion of how environmental factors shape mental health outcomes was narrowly defined. In fact, the most prevalent causal story about child mental health in the Alberta media was one in which poor parenting was identified as the primary source of children’s mental troubles. Therefore, while child mental health was described as a problem that should concern all Albertans because of the dangerous actions of mentally ill children, the causes of this problem were narrowly confined to parenting. As will be discussed in a later section, the structure of this story impacted the types of solutions proposed to address mental health issues.

Impacts of Addiction on Child and Family Health

In the media materials sampled for this analysis, addiction was clearly represented as disrupting early child development. However, the newspaper articles and broadcast news stories that dealt with addiction were different from those dealing with child mental health and early child development. Tables 5 and 6 provide general information about the stories that were captured using addiction as one of the search terms. Two important characteristics stand out. First, the percentage of stories that were episodic in nature is much higher compared to the sample as a whole (See table 2). This suggests that the issue of addiction is significantly more individualized in its narrative structure than issues of early child

development or child mental health. Second, researchers and scientists did not serve as messengers as often as they did in coverage of child mental health and early child development. **As a result, none of the articles included in the analysis deal directly with the science of addiction.** This indicates that Albertans have little practice in thinking about addiction as a science issue — a major finding, given the larger project’s task of translating and communicating this science for the public. Furthermore, articles very rarely discussed the causes of addiction but rather zoomed in on tragic consequences of addiction on children’s development and family life more generally.

Table 5: Storytelling Style of Addiction Stories

	<i>Number of stories</i>	<i>Percent of stories</i>
<i>Episodic</i>	53	73%
<i>Episodic with Thematic</i>	11	11%
<i>Thematic</i>	7	5%
<i>Thematic with Episodic</i>	9	7%
Total	73	100%

Table 6: Messengers in Addiction Stories (n=73)

<i>Messengers</i>	<i>Number</i>	<i>Percent of stories with mention</i>
Law Enforcement	18	25%
Parents	12	16%
Psychologists/Counselors	14	19%
Government Officials	9	12%
Research Scientists	6	8%
Children	5	7%

The most prevalent media frame applied to addiction concerned how parents’ addictions impact young children. These stories focused on parents who inflicted extreme harm on their children as a result of their own addictions. While the articles that focused on child mental health often portrayed “monster children,” the addiction articles painted vivid images of “monster parents.”

Searing pain radiating from Alana’s ankle was the least of her worries. The 15-year-old hobbled to high school with torn ankle ligaments, but the swelling was just one more agony to endure. Alana has been fending for herself since the age of 10. Neglected by divorced, alcoholic parents who regularly disappeared without warning, Alana taught herself to do laundry and got a job at 14. A trip to the doctor isn’t exactly a top priority when you’re juggling homework and working to buy your own food (“Alex bus brings medical care to teens: Health on wheels,” *The Calgary*

Herald, by Sherri Zickefoose, City & Region; Pg. B, December 29, 2009).

At the age of 19, Jennifer moved in with the man who would eventually father her two children and soon found herself pregnant. About two months after giving birth to her first daughter, she became pregnant again. Battling an addiction to meth at the time, she was able to quit while pregnant. The couple moved to a town in the B.C. Interior days before their second daughter was born. Soon after, the abuse began. Suddenly, Jennifer wasn't allowed to phone her family nor leave the house. If she was two minutes late home from work, her boyfriend would yell and throw objects at her. He hit her with books. The abuse worsened after the couple moved back to Calgary and into transitional housing. When the little girls did not do as they were told, he locked them in their room or held them down and hit them with his belt, Jennifer said. The eldest, Nicola, began to hide her younger sister under the bed to protect her. "I was naive. I thought it would get better," Jennifer said. Eventually, the girls' father was forced to leave the housing complex for violating its drug and alcohol policy. When the three were on their own, though, the girls began to act out, Jennifer said. Tantrums, whining and crying became part of the daily routine. And then Nicola, at the age of five, said she wanted to kill herself ("Art therapy helps wipe away abusive past: Coping skills help family" *The Calgary Herald*, by Gwendolyn Richards, News; Pg. A1, November 22, 2009).

What has been learned is that millions of children, many of them born to drug- and alcohol-dependent parents, have been subjected to unimaginable deprivation. They were left in cribs for days with dirty diapers burning their buttocks and legs. Some were hit repeatedly, or they were scalded or starved. Others simply had no one to love and hold them when they were frightened. Many were sexually exploited from their earliest days — some even in infancy. If they survived, they grew up on the streets with no adult guidance and care. At night, they slept in bathtubs to avoid bullets sprayed by drive-by shootings. If this description sounds exaggerated, talk to social workers or police officers who work every day in the slums of large cities ("Protect our kids to avoid violence: A weekly look at Christian matters," *Calgary Sun*, by Dr. James Dobson, Lifestyle; Pg. 32, May 31, 2009).

The articles FrameWorks captured using the search term "addiction" almost universally yielded articles about drug and alcohol; there was very little coverage of other kinds of addiction. However, the limited articles that pertained to sex addictions detailed stories of men who victimized young children because of an addiction to pornography or pedophilia.

Provincial court Judge Al Nemirsky said aggravating factors were that Nickel — an Edmonton married father of two and a former junior high science and sex education teacher at St. Marguerite Catholic School — sexually abused two minors while in a position of trust. "He has violated the sexual integrity of child victims," said Nemirsky. The judge also spoke of the victim-impact statements filed by the then-14-year-old student and her parents. "It is clear ... they have each suffered and continue to suffer a great deal of emotional and psychological

trauma as a result of Mr. Nickel’s abuse,” said Nemirsky. The disgraced teacher, who suffers from an addiction to child porn related to teen girls, sat throughout the sentencing and showed no emotion as he was led away (“Jail for Mr. Sicko teacher: Teacher had sex with student, 14,” *Edmonton Sun*, by Tony Blais, NEWS; Pg. 7, November 11, 2009).

Dr. Ross Brown appeared to have it all — a distinguished medical career, a Hall of Fame distinction with the Winnipeg Blue Bombers, a loving family and the respect of numerous community leaders. But beneath the bright exterior lurked something much darker. The 72-year-old doctor had been fighting an addiction to illicit pornography for several years before his involvement in an international criminal case that ended this week with him being hauled off to jail. Dr. Jeffrey Waldman, a psychiatrist at Health Sciences Centre in Winnipeg, met with Brown on multiple occasions and concluded he suffers from “paraphilia.” “Paraphilias are recurrent, intense sexually arousing fantasies, sexual urges or behaviours that can involve non-human objects that occur over a period of at least six months,” Waldman wrote in his report. In this case, sexual images of children were the “non-human objects,” (“Porn addict saw kids as ‘non-human objects,’ ” *Edmonton Journal*, by Mike McIntyre, NEWS; Pg. A4, September 5, 2009 Saturday).

While the sex addiction stories involved a different kind of relationship between the addict and the child, the impact of these stories was similar to those of “monster parents” in that they provided graphic accounts of what addicts will do to children because of their addiction. Because children were represented as innocent victims, these stories further dehumanized the behavior of the addicted individual and reinforced assumptions of addiction as defined by extreme and shocking behaviors.

In these stories, addictions were portrayed as severely impeding a person’s ability to parent, as journalists focused on how addicts severely abuse or neglect their children. Furthermore, several stories centered on addiction issues in aboriginal communities, which effectively racialized the issue of addiction in the Alberta media.

In a 2005 policy paper, the Caring Society noted that aboriginal children are twice as likely to experience neglect as non-aboriginal kids because of poverty and addiction. They need more services but receive less. It appears we’d rather pay much more to jail aboriginal kids later than help them now (“Feds neglecting First Nations children,” *Calgary Sun*, By Mindelle Jacobs, Editorial/Opinion; Pg. 15, November 17, 2009).

In the majority of the stories, the primary narrative appeared to consist of horrifying and detailed stories of drug- and/or alcohol-addicted parenting. Although often left for the audience to discern, some stories highlighted the impact of parental addiction on children’s physical and mental health. The following two excerpts provided some information about the impacts of parental addiction on children’s health and brain development.

Street life and its pitfalls, including drug addictions and unhealthy routines, can have a drastically negative effect on a baby's health, said Catherine Moravac, the research coordinator in the obstetrics and gynecology department at St. Michael's Hospital. "A lot of street-involved women who are not getting good nutrition and struggling with poverty and housing issues tend to have more complications in pregnancy," Ms. Moravac said. "They tend to deliver babies prematurely and sometimes really under weight," ("St. Michael's reaches out to street mothers: My baby and me: 'Health passport,' integrated care produce results," *National Post*, by Matthew Coutts; Pg. A10, November 23, 2009).

What does it do to a child to experience intense pain, fear and deprivation at a very early age? The answers are beginning to come in. Many of today's abused kids can kill and destroy without pangs of conscience because they are literally brain damaged. They don't feel what you and I feel. They can't empathize with helpless victims the way they should. I am not excusing their violent behaviour, of course, and society can't afford to tolerate it. But this explains some of the mayhem occurring day after day in inner cities ("Protect our kids to avoid violence: A weekly look at Christian matters," *The Calgary Sun*, by Dr. James Dobson, Lifestyle; Pg. 32, May 31, 2009).

Most often, however, the media materials described how parental addiction creates "vulnerable children," without a clear explanation of how abuse and neglect related to addiction actually impact children's developmental outcomes.

The teams will focus on the most vulnerable children by looking for known risk factors — including a lack of adult supervision, negative peer influences, alcohol and drug abuse, or a lack of attachment to the community ("Teams target kids at risk of being caught up in crime: Pilot project in city schools gets \$1.47M," *The Calgary Herald*, by Colette Derworiz, CITY & REGION; Pg. B4, September 16, 2009).

Two kinds of stories were used to portray the developmental outcomes of children raised by parents suffering from addictions: individual triumph or individual failure over adversity. First, the media focused on young people who overcame impossible odds to become productive and successful members of society. Along with Alana, the young woman covered in the story above who was able to survive despite long absences by her parents, these articles covered other young people who were able to persevere through their parents' drug and/or alcohol abuse. A second narrative trope showed how children who were in some way victimized by someone with addictions would go on to become addicted themselves.

Yes, Theo's addiction is important to talk about, but he said himself, his addiction is directly related to the abuse. He drank because of the abuse. Sadly, child sexual abuse is the root cause of so many other social problems that we see in our communities. Currently, public conversations about this issue are usually limited in audience, simplistic in subject, and often stigmatizing

“Don’t let Fleury be the only one talking about abuse,” *The Calgary Herald*, by Danielle Aubry; Pg. A11, October 18, 2009).

Children’s addictions received less attention than did parental addiction. However, there was some coverage of drug and alcohol addictions as well as behavioral or process addictions, such as Internet addictions, in children. Media frames about addiction and children focused on older children with mental health problems who had become addicted to drugs and alcohol. In these kinds of stories, addictions were framed as a kind of marker for the child’s fall from “normality.” Along with violence, addiction among children with mental health problems was a way in which journalists could stress the severity of a family’s problems and offer up cautionary tales about mental health issues left untreated.

At 10, Nicole was a straight-A, soccer-playing student prone to dark thoughts and hoarding candy in her room. By her teens, she was binge-drinking and spending hundreds of dollars a week on food and booze, as her desperate parents put locks on the fridge and watched their family fall apart. Now 20, Nicole has been sober since January, and she’s also taking medication for bipolar disorder. She was diagnosed through the Inner City Youth Mental Health program, which links psychiatrists from St. Paul’s Hospital with youth at Covenant House, the downtown shelter where she lives (“Pilot project offers shelter from the chaos within: Downtown refuge for homeless teams up with hospital’s psychiatrists to diagnose and treat mental illness,” *The Globe and Mail*, by Wendy Stueck; Pg. S1, May 19, 2009).

Media stories about addiction as it pertains to child and family health framed it primarily as a moral issue, rather than as a brain-based disorder. Addiction in this context either signaled a parent’s extreme depravity or a child living outside of normative society. The media coverage of addiction sensationalized certain kinds of impacts of addiction and provided graphic details about the abuse that can accompany addiction, but it did not report on the causes of addiction. While addictions were often cited as causes of children’s mental health issues, *how* addiction impacts mental health was largely absent from these stories. Furthermore, the kinds of addictions discussed in the media were limited to drugs and alcohol, gambling, and a limited amount of coverage of sex addiction (typically talked about in conjunction with child pornography cases). The absence of causal stories about addiction based on the latest science is discussed in more detail in the following section.

Media coverage of addiction proved the most problematic of the topic areas examined in this analysis. Stories of the immoral actions of addicts received more attention than did explanations of the mechanisms that cause addictions. The media simply alerted the public’s attention to the problem of addiction and its impacts on families, rather than examining the nature of the problem and its potential solutions. While this shallowness could prove an arena of opportunity going forward, such a pivot will first require overcoming the identification of addiction as a moral failure rather than a brain-based disease.

How to Address Developmental Issues

The media materials sampled for this analysis not only covered children's mental health issues and problems related to addiction, but also focused on specific kinds of interventions to these issues. As the following sections will demonstrate, the range of possible or effective interventions was limited.

Developmental Problems Can Only be Treated

In terms of mental health, the overwhelming focus in the media was on providing treatment for those already suffering from or soon to be identified with mental health problems.

A year ago last August, the Alberta government rolled out a long-awaited, long-overdue plan to improve mental health care services for children and youth. The \$50-million plan set benchmarks for how long it should take for children to receive mental-health services in the province. The goal was for those in crisis to receive care within 24 hours, those with less urgent needs to get seen within two weeks, and those with scheduled visits to receive care within 30 days. At the time, according to provincial figures, the average wait time for children's mental health services in Alberta was about 11 weeks — almost three months (“\$50 million for kids' mental health care in limbo: Promise to fund services put on back burner after superboard established,” *Edmonton Journal*, by Paula Simons, CITYPLUS; Paula Simons; Pg. B1, October 8, 2009).

Treating mental-health problems in children entering school may help prevent victimization from bullying, say researchers who tracked 400 Canadian children. In the May/June issue of the journal *Child Development*, researchers said they found children who entered first grade with signs of depression and anxiety or excessive aggression were at risk of being chronically victimized by their classmates by third grade. “Children's early mental-health problems can set the stage for abuse by their peers,” said psychology Prof. Bonnie Leadbeater of the University of Victoria, who led the study (“Depressed, anxious 1st graders at risk of being bullied later: Study,” CBC NEWS, May 15, 2009).

Toronto-based child psychologist Jancy King warns that overweight children suffering from low-self esteem run the risk of developing future problems, such as eating disorders, people-pleasing tendencies and unhealthy sexual behaviour as adults, to name a few. “Kids will learn very, very quickly that they're not meeting the criteria,” she says. “And once you run into low self esteem it's pretty much for life until you get some treatment” (“Overweight kids suffer anxiety as young as 6,” *The Globe and Mail*, by Jennifer Yang, Globe Life, Pg. L1, July 16, 2009).

Similar to the stories of extremely disruptive children with mental health issues, journalists stressed the importance of treatment by emphasizing what could happen if children's mental health issues were left ignored. Increased aggression, eating disorders and even sexual promiscuity were all mentioned as

potential outcomes of children's mental illness.

There was a strong emphasis on institutionalization and drug therapies as important parts of an effective mental health care system for children. Because children with mental health problems were frequently represented as extremely socially disruptive, a common policy proposal promoted in the media was increasing institutionalization of these children. These children were represented both explicitly or implicitly as a threat to public safety, their parents were unable to provide appropriate and safe care and so the only remedy was to increase spaces in institutions.

A 12-year-old boy slams his open hands on the bare walls of the locked, empty room. His thin, white face appears in the window, and a muffled yell comes through the door. Carolyn Wilhelm moves around the corner out of sight, hoping the newcomer will eventually calm down enough to talk. He's been confined in the room for an hour and a half. "Every time we go in there, he tells us to fuck off and says he wants to stab us. So we say, 'OK, I guess you're not ready,'" Wilhelm explains. "The beauty of this building is being able to separate kids." Staff at the Yellowhead Youth Centre agreed to give a tour of their facility after two 14-year olds from a similar institution, Bosco Homes, were charged in connection with the killings of Susan Trudel and her landlord, Barry Boenke, in Strathcona County ("Locks and gates won't cure troubled kids: Youth workers: Personal responsibility takes the place of punishment at Yellowhead facility," *Edmonton Journal*, by Elise Stolte, NEWS; Pg. A1, June 22, 2009).

I first met Alexandra two months ago at the suggestion of her family — more particularly at the request of her father, Cameron Smith, a former colleague who argues passionately that vulnerable people like Alexandra need round-the-clock supervision and care, not just for their own good but for the good of the rest of us. Society plainly disagrees. We've let the mentally ill out of their institutions, because it's seen as the humane thing to do, or because it saves money, or because it scores a political point. But a family's perspective when one among them is mentally ill is different: Their compassion for these lost souls — or failing that, their responsibility to foresee the worst — is obligatory, whether they like it or not ("A Room With No View," *The Globe and Mail*, by John Allemang, FOCUS; Pg. F1, July 11, 2009).

Along with institutionalization, drug therapies were a frequently cited method to treat disruptive children.

The McGill scientists, whose paper is published in this week's issue of the journal *Nature Neuroscience*, say that identifying epigenetic changes in abuse victims could one day pave the way for drugs that would reverse the damage. To do that, said co-author Moshe Szyf, researchers would have to find similar epigenetic markings in the DNA of a person's blood, since brain tissue can only be analyzed after death. "The implications at this stage are you want to identify these people and then probably offer them some sort of intervention," said Dr. Szyf, an epigeneticist in McGill's department of pharmacology and therapeutics. The goal, he said,

would be to find drugs that could reverse the epigenetic changes (“Genetic risk for suicide linked to child abuse,” *The Globe and Mail*, Sheryl Ubelacker, *Globe Life*; Pg. L4, February 24, 2009).

In many cases, she said, mental-health issues are biological, although environment has an impact as well. Although she said she isn’t an advocate of mental-health medications, Davidson added they are needed in some cases. “I would see kids come in that had really significant issues going on in their lives,” she said. “When I’ve sat down with a nine-year-old little boy who’s in tears saying ‘I can’t help it, I can’t stop myself from doing it,’ that’s devastating. “In a situation like that, you have to look at the risks of not helping that child.” The study was funded by the Child and Family Research Institute, the Canadian Diabetes Association and an unrestricted research grant from AstraZeneca Canada (“Children on antipsychotic drugs prone to diabetes: Canadian study urges more monitoring of youngsters,” *Edmonton Journal*, by Kelly Sinoski, *Body & Health*; Pg. A15, November 13, 2009).

In the above stories, although environmental determinants of children’s mental health issues were discussed, identifying drugs to reverse epigenetic changes or to relieve suffering were the only solutions offered by journalists, despite a more well-rounded and multi-modal perspective in the science community.¹³ Addressing the environmental conditions that contribute to the child’s condition in the first place was not an option mentioned in the articles included in the analysis. Again, this may be due to the relative lack of science available to journalists covering this topic or because of their own preconceived notion of what parts of this science should be covered.

The use of more intensive treatments, such as pharmaceuticals and in-patient treatment, was further magnified by another common media narrative about children’s mental health and addiction. These stories featured desperate parents seeking effective treatments for their children, but who were unable to secure the kinds of intensive treatment required to help them. In fact, Table 1 shows that lack of access to care was a common theme in the articles sampled in this analysis.

The mother of a nine-year-old boy who burned down a former McDonald’s restaurant on Canada Day says she tried for months to get help for her son, but none came until he torched a building. “I wrote a letter to the minister of Children’s Services (Janis Tarchuk) in the middle of June and asked for some assistance,” said the woman. “They contacted us and basically the woman was just very governmental. Very bureaucratic. Her book said she had to tell me I wasn’t fulfilling my parental responsibilities.” On Canada Day, her son and an 11-year-old boy were responsible for the fire that caused \$800,000 damage. The boys are both too young to be charged. The nine-year-old’s mother said she wanted to speak out after her husband heard a radio show Friday afternoon that featured callers lambasting them for poor parenting (“Mom fears son, 9, who set fire to restaurant: Blames ‘bad crowd’ for boy’s behaviour,” *Edmonton Journal*, by Laura Drake, *CITYPLUS*; Pg. B3, July 9, 2009).

I am the mother of a 17-year-old daughter who is mentally disabled. My daughter has the cognitive ability of a two-to three-year-old child. When my daughter was 11, she started into puberty, and became physically aggressive almost overnight. We struggled for four years before placing our daughter in a group home. This past June, our daughter was evicted from her group home because of her aggressive behaviour. Because there were no better options, we decided to bring her home. One of the requirements of our daughter staying in her group home until June 30, was a referral to Children's Mental Health, which we did. Our daughter's file was looked at, passed onto a clinic at the Glenrose Hospital who said they couldn't help, and then returned to the Children's Mental Health ("Parents of mentally disabled find services sorely lacking," *Edmonton Journal*, by Deb Halldorson, Letters; Pg. A17, October 2, 2009).

While I acknowledge that "we don't kill our kids because we have an issue of support," the cumulative impact of years of constantly pleading, explaining, begging, phoning, waiting, getting your hopes up and having them dashed can drive parents to do things they would "normally" never consider. Having raised a son with fetal alcohol spectrum disorder (FASD) from age three days who became a crack addict in his teens, I have felt enormous frustration and anger as a father only can feel, trying desperately to get help for his son. I can only speak from my experience and my wife's as we encountered the system. Looking for help for a child with mental health and drug issues was an endless cycle of phoning, leaving messages, finding your contact has moved, quit, been reorganized or is on leave. After you find someone, you tell the whole story over again. Occasionally, and to be fair, there were a few people and programs that were helpful ("A parent's view," *Edmonton Journal*, by Gene Roach, Letters; Pg. A13, October 11, 2009).

A few articles focused on the co-morbidity of mental health issues and addiction, and explained the difficulties of securing mental health treatment for children with addictions:

Many bounce back and forth from one specialist to another, or are excluded from mental-health care because of their addictions. But research shows that mental illness and substance abuse often go hand-in-hand, with one triggering the other ("Mental-health advocates hail \$5-million Thomson donation: Gift will fund new CAMH facility to help youth who suffer from addictions and mental illnesses," *The Globe and Mail*, by Jill Colvin; Pg. A8, June 29, 2009).

She said her son was a normal nine-year-old boy until February when he "got hooked up with a really bad crowd and started doing marijuana and drinking and smoking." His behaviour worsened. He started running away from home and school. By May, he would be gone for entire nights. "So we started calling Children's Services and Children's Mental Health and asking for assistance, just saying, 'Can you help us out any way?'" she said. The only answers the mother received provided no help and left her feeling like she was being judged as a bad parent. She and her husband took advantage of one of the only options available to them: They applied at the beginning of June under the Protection of Children Abusing Drugs Act for an order that put their son in a safe house from June 1 to 5. The order is designed to help children

under 18 whose use of alcohol or drugs is likely to cause significant psychological or physical harm to themselves or others. It didn't help. The parents had to get another order two weeks later ("Mom fears son, 9, who set fire to restaurant: Blames 'bad crowd' for boy's behaviour," *Edmonton Journal*, by Laura Drake, CITYPLUS; Pg. B3, July 9, 2009).

While it is important to recognize that some children need intensive therapies and to bring awareness to families' struggles to secure those services, these articles left the problem of children's mental health issues in Alberta largely decontextualized. There was very little information offered about the average severity of children's mental health issues, the most common forms of treatment for mental health issues and the relative efficacy of treatments. While the experts interviewed by FrameWorks stressed the variability in intensity and duration of children's mental health problems,¹⁴ these articles left readers with the sense that children's mental health and addiction issues are universally severe, potentially dangerous and in need of only the most intensive therapies.

Prevention is About Education

Unlike U.S. media coverage of children's mental health issues, in which issues of prevention are largely absent from the coverage,¹⁵ there was discussion, although limited, in Alberta. While discussed, preventative strategies were primarily limited to educational programs that were presented as attempts to raise awareness among children and their caregivers about mental health issues.

"It's an incredible way to reach kids," says Michael Cheng, a child and family psychiatrist at the Children's Hospital of Eastern Ontario. "They can educate and inform themselves about mental-health issues. They're also comfortable online — there's no stigma there." The catch, Dr. Cheng says, is that "it's still the Wild West," so young people need guidance to distinguish the good information from the bad. "We used to street-proof kids. Now, we have to Web-proof them." ("We used to street-proof kids. Now, we need to Web-proof them," *The Globe and Mail*, by André Picard, Focus; Pg. F8, November 14, 2009).

In these stories about prevention, child mental health issues were always assumed to be illnesses or problems rather than an opportunity to promote mental health in children. The emphasis on prevention as education was especially true among the articles that addressed preventing children's addictions.

Now, just as it embraced global best practices when creating its innovative new series of in-class drug abuse education programs, the Council on Drug Abuse has turned to the best available monitoring and surveying techniques to judge how effective those programs actually are. Within the next four years, CODA expects to be able to draw an accurate picture of how widespread substance use of all kinds is in grades 7, 8 and 9 in Ontario, how substance abuse grows as children move through those three crucial years, how effective its in-class program is when it comes to changing attitudes toward drugs and, most important, if those programs do, indeed, act as a deterrent ("Jail for Mr. Sicko teacher: Teacher had sex with student, 14," *Edmonton Sun*, by Tony Blais, NEWS; Pg. 7, November 11, 2009).

Rebels player Brett Ferguson said he chose to go on the trip because he felt it would be a very interesting experience and as role models in the community, it better prepares him to talk to teens about the dangers of drugs. He said he's visited local schools in the past to do anti-drug presentations, but after visiting East Hastings he'll have much more to offer in terms of painting a realistic picture. "I'll be able to use my experience, share it with them and hopefully get through to them," he said. Cam Moon, director of radio broadcast for the Red Deer Rebels, said the purpose of the trip is for players to see first hand the drug trade at its worst ("Rebels visit drug-infested East Hastings," *Red Deer Express*, by Mark Weber and Erin Fawcett, NEWS; Pg. 3, October 14, 2009 Wednesday).

AADAC, now a part of Alberta Health Services, advises parents to discuss important issues openly and honestly with kids. "Absolutely communication is important," said Marilyn Thurston, director of youth services with Alberta Health Services Addiction and Mental Health. "Parents should have good, open communication with their kids." Teens should be educated on drugs and it should be done by their parents, said James Bateman, a psychologist who focuses on youth and addiction. "I wouldn't send my kid across the street without teaching him how to cross it, just like I wouldn't send my kid into the world without them knowing the dangers of drugs," Bateman said. Harach is using her findings for further research to see how the quality of relationship between mothers and adolescents can protect them from peer influence on drug use ("If mother uses drugs, open dialogue helps keep teens clean," *Edmonton Journal*, Linda Hoang, BODY & HEALTH; Pg. A14, June 13, 2009 Saturday).

If children are simply given information about appropriate treatment-seeking behaviors or the potential dangers of addictive substances, these stories argued, then they will make the right choices to protect themselves and be healthy. That is, in these prevention stories, addiction and mental health issues were implicitly framed as a matter of choice and as an issue of the strength of the child's and caregivers' willpower.

Strong Sense of Governmental Responsibility

The majority of this analysis has focused on problematic coverage of early child development, child mental health and addiction in Alberta. One very promising aspect of this media coverage, however, is its presentation of a strong sense of governmental responsibility for providing services and treatment for families with mental health or addiction issues.

The emphasis on public solutions was dominant despite causal stories that attributed responsibility for these types of developmental issues to parents and children, a lack of discussion of the social determinants contributing to mental health and addiction issues, and narrative structures that centered on individual children or families. While one would expect responsibility for solutions to be placed primarily on parents, government was frequently described as the more appropriate source of effective treatments.

When his mother had no success finding a place for him to stay, I called Mental Health Services, the crisis line, Youth Emergency Shelter, AADAC, Catholic Social Services, Salvation Army, a couple residential agencies, and other agencies long since forgotten. No one could help me. The system is hopelessly under-resourced for mental health problems, leaving staff frustrated as they struggle with demands they cannot meet, knowing the family on the phone or the individual in front of them needs help now, and will not get it. The government must reassess its funding for mental health programs (“A parent’s view,” *Edmonton Journal*, by Gene Roach, Letters; Pg. A13, October 11, 2009).

Ms. Martin noted that while demand for services is spiking, funding for mental-health agencies has remained stagnant. In fact, a recent report from the Auditor-General of Ontario lamented the lack of funding increases, saying that children’s mental-health agencies have had “considerable difficulty maintaining their core services and to do so have often had to ‘rob Peter to pay Paul.’” Another report, prepared by former provincial Conservative and Liberal cabinet ministers Roy McMurtry and Alvin Curling, recommended an additional \$200-million investment in children’s mental health — a 40-per-cent increase over current funding — over the next three years (“Recession taking toll on the young: As parents lose jobs, demand soars for mental-health services for children in hard-hit Windsor,” *The Globe and Mail*, by André Picard, National News; Pg. A4, April 13, 2009).

The first few weeks of preschool open up a world of experiences for a child. It can also reveal hidden cognitive, behavioural and social issues that may need close attention. From the age of four, any educational, health or development issues become a shared responsibility with the Alberta ministries of Education, Family Services, and Health. If there is a concern before or after a child hits preschool, there is help available. “Children can start getting special education funding through Alberta Education at the age of two years, six months,” says Roxanne Bond, preschool coordinator at the Child Development Centre in Calgary (“Parents urged to be proactive for special education youngsters: Resources are available across Alberta,” *The Calgary Herald*, by Donna Gray, NEIGHBOURS; Pg. N18, February 19, 2009 Thursday).

The stories that featured desperate parents seeking treatment for their children often also emphasized the failure of government to provide sufficient services for children and families with mental health and addiction issues. Despite this focus on government inadequacies, most of the articles presented a strong argument for public solutions to these problems, which is a critical part of a productive public policy narrative.

Critical Absences in Media Coverage

In the above section, we identified the dominant media scripts regarding how children develop, how development gets disrupted and how to address developmental problems. It is also critical to analyze what’s missing from coverage of early child development, child mental health and addiction issues.

As discussed in the theoretical background (see Appendix E), the “holes” in media coverage provide opportunities for readers to fill in information by applying those cultural models that they have the most practice using to process information on these new and less familiar issues. Therefore, in a counterintuitive way, absences in media coverage can actually help to reinforce dominant models just as much as the elements that do appear in the media script.

Perhaps the most noticeable omission in the coverage was the absence of stories about the causes and the science of addiction. Remark that stories related to early child development and child mental health delved into the science of these topics and much of the coverage aligned with the core story of early child development and child mental health. By contrast, the media rarely answered the question of why people become addicted and how addiction is related to the intersection of biological factors and social determinants. The media coverage of addiction was overpopulated with stories about the horrors that addicted parents inflict on their children. That is, addiction was defined largely in moral terms; explanations of how people become addicted and the impact on child and family health were lacking. Furthermore, media coverage of addiction was almost exclusively about substance abuse, with process addictions left largely unaddressed in this coverage¹⁶.

Relatedly, media did not cover the social determinants of early child development, child mental health and addiction. While media coverage of topics such as epigenetics provided opportunities to show how social environments impact health outcomes, these connections were not made and discussions of how social structures and institutions can shape developmental outcomes were missing.

Finally, the solutions proposed in the media were narrowly focused on treatment for those already suffering from mental health and/or addiction issues or prevention through education. Health promotion was largely omitted, as were other ways of addressing children’s development through primary prevention. For example, programs or policies aimed at promoting children’s mental health were largely ignored. Similarly, preventative measures that were aimed at changing the environments that lead to greater vulnerability to mental health or addiction received no media attention. The media also focused on the existence of programs to address developmental problems, but discussion of programmatic quality and the efficacy of such intervention was entirely absent from the coverage.

COGNITIVE IMPLICATIONS

The media frames identified above are not isolated stories without consequence; rather, they interact with the cultural models that Albertans employ to think about these issues. In so doing, these media frames reinforce and contest the public’s cultural models or, in some cases, leave key parts of the story unaddressed. The news coverage that conforms to dominant patterns of thinking is likely to strengthen those cultural models that people already use to think about these issues. On the other hand, stories that contest current understandings and provide new ways of thinking about the issue can be hypothesized to, over time, begin to change public understanding. Gaps in coverage, meanwhile, leave

space for the public to fill in missing information with those patterns of understanding that they have the most practice in applying. In the following section, we look at specific ways that patterns of media presentation and public understanding interact on the issues of early child development, child mental health and addiction. We discuss the implications of these interactions to evaluate the likely effects of exposure to current stories in Alberta news.

Filling in the “Black Box” of Early Child Development

FrameWorks’ previous research on cultural models of development demonstrated that Albertans have a thin sense of *how* children develop. These understandings fostered conceptualizations of children as passive absorbers of events happening in their environment. This understanding is quite different from the complex interactional processes described by experts of early child development.¹⁷ From this media analysis, it appears that the Albertan news media can play a positive role in helping the public fill in what FrameWorks often describes as the “black box” of development. The robust reporting on the science of early child development and the media’s focus on brain development and interaction with caregivers is likely to aid the public in gaining a more nuanced understanding of the mechanisms and processes involved in early child development.

Exacerbating the Family Bubble

In our research on early child development and child mental health, FrameWorks found that Albertans focus on communities as the contexts that shape development, whereas the focus of Americans was more myopically trained on individual families and homes.¹⁸ This did not mean that Albertans do not fall into the cognitive trap of the “family bubble,” or the idea that the home is the only context of importance for child development, but that they have other, more collective and systemic ways of thinking that they could access to make sense of issues of causation and responsibility.¹⁹ The Albertan media coverage regarding contexts in which development occurs was diverse in that there was significant attention given to early learning environments outside the home. However, both implicitly and explicitly, the message that “mum knows best” was a dominant trope. Furthermore, in the addiction and mental health stories, responsibility for children’s developmental outcomes was placed squarely on the shoulders of parents. Therefore, while the immediate family is one of many contexts of development that Albertans recognize as important, this parental focus and way of understanding issues of child development, child mental health and addiction is likely to be continually triggered and magnified by the media coverage of these topics.

Activating Models of Mental Illness

FrameWorks’ research has demonstrated a strong public tendency to see any issue of a child’s mental state as being about *mental illness*. Moreover, once this translation is made, people assume that mental issues are caused by chemicals, that those chemicals are the result of genes or a person’s genetic makeup, and that genes are set in stone. When this model of mental illness is activated, the public tends

to think that there is little that can be done to affect the course of the condition once it has developed.

This cultural model of mental illness is likely to be activated by several aspects of the media coverage. First, the anecdotal examples of extreme and violent behavior in the media “fit” with the public’s cultural model of mental illness and are thus likely to activate this existing pattern of understanding. The result is that, over time, the mental illness model will become even more highly and firmly attached to thinking about *all* issues related to the mental states of children, as readers become accustomed to applying a cultural model of mental illness to think about *all* issues of mental health.

Albertans’ cultural model of mental illness also includes the understanding that mental illness has to be controlled but that it cannot be fixed. Because mental illness is often conceptualized as without a cure, treatment systems and drug therapies, rather than prevention or promotion services, are the only imaginable solutions. This fatalism and a narrow focus on treatment were also prevalent features of the media coverage of child mental health. Given this framing, it is likely that people would support continued funding for the management of the mentally ill, since that management results in keeping them from endangering anyone, but will fail to understand that addressing exposure to stress and adversity prevent mental health problems in the first place. In this way, the media coverage and the public’s prevailing models align and powerfully co-construct the idea that mental illness in children is not preventable or treatable.

Cueing Willpower Models of Addiction

Previous FrameWorks research on Albertans’ cultural models of addiction demonstrated that the public employs diverse models to define addiction, to identify its causes and to think about effective interventions.²⁰ We found that how people define addiction and think about potential causes directly impacts how they attribute responsibility for addressing addictions and how they reason about the kinds of interventions that might be effective. The employment of models was highly contextual in this previous research, meaning that the individuals we spoke to often vacillated between several conflicting models, depending on the information they were presented and the questions they were asked.

The media coverage of addiction analyzed here did not define what constitutes addictive behavior and did not explain the biological or social mechanisms by which people become addicted. However, the media was brimming with stories of addicted parents inflicting unspeakable harm on their children. That is, in the articles reviewed, journalists focused on the impacts of addiction on innocent children without contextualizing or explaining the parents’ experiences. What remains clearly etched in the minds of news-attentive Albertans appears therefore to be a picture of immoral and selfish parents who cannot control themselves and whose selfishness is enacted at the expense of their children. This creates powerful images of what addiction is and structures a perspective on this issue that is highly dissonant with the science on this subject.

The lack of coverage of the causal mechanisms of addiction combined with the moralist tone in which

the issue is framed serve to encourage Albertans to draw from their existing cultural models to explain why people become addicted. In this way, it is likely that people will draw on models that cast addiction primarily as an issue of willpower and character. According to these models, people become addicted because they do not possess the internal strength to control their behaviors. In media stories about addicted parents, the addicts featured cannot stop their behavior even for the sake of their own children — which is seen as the ultimate failure of willpower.

Substantiating Interdependence and Governmental Responsibility

FrameWorks' body of research on early child development, child mental health and addiction has demonstrated that individualism can structure Albertans' thinking about these topics. However, our research also found that Albertans, especially when compared to their American counterparts, defined successful development with reference to individuals who participate and contribute to a foundationally interdependent society.²¹ Although in some cases a more recessive or latent model, Albertans were able to link responsibility for development to contexts larger than individual families. Furthermore, Albertans reasoned that the government should take responsibility for addressing developmental issues related to child mental health and addiction.²²

The media coverage, especially when focused on the provision of services for mentally ill children or addictive behaviors as they impact family health, was largely consistent with Albertans' sense of the role of the government in addressing these issues. While in some places the media relied on causal stories in which individuals— especially parents — were held responsible for negative developmental outcomes, intervening in such problems was clearly framed as being under the purview of the larger community and provincial governments. This suggests that Albertans are well-positioned to see the benefits of policy solutions to developmental problems, rather than being limited in their thinking about effective solutions to those that focus solely on changing individual behavior.

CONCLUSION

Scientists, policy makers and advocates can glean several lessons from the state of Alberta's media coverage of child development, child mental health and addiction; these lessons can be used practically to begin constructing more productive ways to communicate with the public about these issues. First, experts in these areas should be commended on the highly productive aspects of the coverage and should continue getting these frames into the public discourse. The state of science coverage in general is strong and relatively comprehensive when compared to coverage in the U.S. Child development and child mental health experts have a presence in the media coverage on these topics, and the science of early child development and child mental health is filtering into the Albertan media. Second, there is a strong assumption within the media coverage that the government has a significant role to play in addressing development and developmental problems. That is, media messengers on these topics are communicating the policy implications on these issues and attributing to government a strong role in improving child well-being.

There are also subtle ways in which experts and advocates could positively shift the media discourse on these topics. In all three areas covered in this report — early child development, child mental health and addiction — there was a strong presumption in the media that parents, and especially mothers, are ultimately responsible for children’s outcomes. This idea was most strongly relayed in the media that covered addiction issues. The articles on addiction did not contain the same attention to science, to ideas of causation, or to public responsibility for solutions. Rather, most of these stories were populated by addicted parents and their abused children, which limited a broader understanding of the underlying causes of addiction and its impacts on family well-being. This pattern suggests that addiction experts and advocates need to make a more concerted effort to bring a core scientific story of addiction into the popular media and draw explicit connections between development and addiction. More than any other issue area covered in this analysis, the addiction coverage was more likely to begin with a horrific anecdote about the out-of-control behavior of an addict — a practice that communications research strongly suggests is counterproductive to public engagement.²³ To the degree possible, experts need to encourage the journalists they work with to tell more systemic stories about addiction and to use their own quotes as the foundation for more science explanation. Without this, even the most effectively framed scientific story will be overwhelmed by the stereotypes that currently shape media stories about addicts.

Parental responsibility for children’s developmental outcomes is both implicitly and explicitly conveyed by the media. It is easily invoked in the media narratives chosen and can easily activate this model of responsibility for child rearing in the Albertan public. Experts and advocates need to be aware of inadvertently invoking the family bubble and to overcome this tendency by consistently shifting the focus to the environments in which development occurs. Furthermore, the definition of environments needs to be expanded to not only encompass environmental toxins or home environments, but the social conditions under which child development occurs.

APPENDIX A: CULTURAL MODELS OF EARLY CHILD DEVELOPMENT SUMMARY OF FINDINGS

1. A comparative analysis of American and Albertan interview data suggests clear similarities in the ways members of these groups think about early child development. Both Americans and Albertans take the process of child development for granted and have thin understandings of *how* children develop. When groups are able to think about some kind of process of development, they assume that children are “little sponges” that are “filled” by, and passively absorb, things immediately around them. Comparative analysis also showed that both groups employed a deterministic assumption that when a child’s development is derailed, the damage done is permanent and irreversible. Americans and Albertans also both orient to the topic of “early” child development by assuming the discussion is about adolescents and “age-up” the conversation.

- Finally, FrameWorks' research shows that both groups employ an implicit understanding that stress, even when severe, is a compulsory and beneficial aspect of development — in short, that “stress does the body good.” These similar modes of understanding suggest opportunities to “borrow” and empirically test in Alberta many of the communications recommendations developed for use in the U.S.
2. Research also revealed a set of key differences in the ways Americans and Albertans approach the concept of early child development. Albertans, unlike Americans, focused on *skills and abilities* as *what* is developed during early childhood. Furthermore, whereas Americans assume the goal of development to be the production of financially successful and independent individuals, Albertans perceive this goal through the lens of *interdependence* —that the result of successful development is an individual who participates and contributes to a foundationally interdependent society. Albertans also focus on communities as the contexts that shape development, whereas the focus of Americans is more myopically trained on individual families and homes. In addition, Albertans, unlike their American counterparts, connect early experiences with later outcomes and consequently view early learning as *real learning*. Finally, while for Americans development is about *protecting* the child *from* environments, Albertans conceive of a *relationship* between individuals and environments in which successful development hinges on the *interactions* between children and their surroundings. Several of these cross-cultural variations point to promising features of the Albertan cultural/cognitive landscape and represent promising levers for strategic communications on this issue. These assumptions should be activated, as they improve the public's ability to understand and grasp the policy implications of the scientific research.
 3. Analysis revealed that there are gaps between how scientists and Albertans understand the process of development. Scientists recount a nuanced understanding of the continued plasticity of brain systems balanced with the notion of critical developmental periods, while Albertans assume, deterministically, that “damage done is damage done.” Research revealed that another key gap exists in the area of factors of importance, with Albertans focusing shallowly on access to “programs” and scientists appreciating the complex interaction between genes and environments as these affect or mediate programmatic *quality*.

APPENDIX B: CULTURAL MODELS OF CHILD MENTAL HEALTH SUMMARY OF FINDINGS

U.S.-Alberta Similarities

- » Both Americans and Albertans assumed unequivocally that discussions of “mental health” are about mental health *problems*. In this way, conceptions of positive states of mental *health* and the *promotion* of these states were largely absent from the discussion.
- » Comparative analysis also showed that both groups approach the issue of child mental health with little understanding of the processes that shape these states. When talking about mental illness, both groups of informants had an easy time pinpointing causal factors such as genes and trauma. However, when discussing states of mental health and mental health problems, discussion of causal factors and understandings of *how* any identified factors shape mental states was almost entirely absent.
- » Research also suggested that Americans and Albertans view mental health as a state over which affected individuals are responsible for “changing their attitude” or “bucking up and being happy.”
- » Relatedly, both groups perceived mental *health* to be about emotions and mental *illness* to be about “chemicals, genes and that medical stuff.” Even more strongly than in the American sample, Albertans were firm in their belief that mental *health* and mental *illness* are separate phenomena that are caused by unique factors, experienced differently, and correspond to discrete perceptions of treatment.
- » Americans and Albertans also had a tendency to “age-up” discussions of child mental health — implicitly focusing conversations, explanations and examples on pre-adolescents.
- » Research suggested that both groups exhibit a tension between implicit understandings that children *can and do* experience mental health because they are “little adults” and that children *can't possibly* experience these mental states because of their lack of emotional development. Both groups of informants, however, believed unequivocally that young children *could* have mental *illness* — again substantiating the finding that different sets of underlying understandings structure thinking on these two topics.
- » The similar models of understanding child mental health issues imply that many of the frame elements that FrameWorks is currently developing to employ in U.S. communications on child mental health will be of use to advocates and scientists in communicating about child mental health with the Albertan general public. Future communications research will need to more explicitly test the ready applicability of these frame elements in Alberta.

Alberta Distinctiveness

Despite many similarities, research also suggested a set of key differences between the way Americans and Albertans approach the concept of child mental health.

- » Albertan conceptualizations of responsibility did not begin and end with *individuals*, as did American understandings. For Albertans, individuals were surely responsible for their mental states, but there was a strong and simultaneous assumption that the provincial government bears responsibility to provide services and programs to help individuals “suffering from mental health.”
- » Along similar lines, Albertans *did* implicate parents in the equation of responsibility for child mental health, but this understanding did not have the dead-end, tunnel-vision and conversation-trapping quality that it did for informants in the States. Albertans were able to see past parents and identify other causal and treatment factors, like “society and communities.”
- » Finally, Albertans exhibited a top-of-mind understanding of “functioning” in thinking and talking about child mental health. While present in the American sample, thinking about mental health as the ability to function was highly recessive and did not have the conceptual power or pervasiveness that it did for Albertans.
- » Several of these cross-cultural variations point to promising features of the Albertan cultural/cognitive landscape and represent promising tools for strategic communications. These assumptions should be activated as they improve the public’s ability to understand and grasp the policy implications of the scientific research.

The Science Gap

In the report’s second comparative task, we compared the expert story of child mental health with the ways that Albertans understand the issue. This comparative analysis revealed the gaps between the two groups and provides vital information in translating the science of child mental health for the Albertan public.

- » Scientists understand that mental health is shaped by a confluence of factors from environments, genes and biology. This is juxtaposed with a public understanding of mental health as equated with a person’s feelings and emotions.
- » In our research, scientists did not draw a line between mental health and illness. Instead, they explained that mental health exists on a continuum, characterized at one end by lack of functioning and, at the other, by high functioning. By contrast, the lay understanding of these concepts was dualistically opposed.

- » Experts and Albertans also differed in conceptions of treatments, with scientists advocating contextual community-based, condition-specific treatment with an emphasis on promotion and prevention. Albertans, on the other hand, advocated treatments narrowly corresponding to the category under discussion — for mental health, counseling and heightened personal control; for mental illness, drugs to rebalance “out of whack” chemicals.
- » Another glaring gap was evident when scientists spoke of mental health as a *positive* state and Albertans assumed it to be something that *needed treatment*.
- » Albertans, unlike scientists, also questioned, at points, the existence of *early child mental health*, waffling back and forth about whether a young child could really experience these states.
- » Finally, there was a gap between these two groups in the perceived importance of genes and biology in shaping mental health. Albertans largely attributed states of mental health to control over and expression of emotions, while scientists placed a strong emphasis on the contributions of genes *and* biology, not only in states of mental illness, but equally in states of mental health.

APPENDIX C: CULTURAL MODELS OF ADDICTION SUMMARY OF FINDINGS

Expert Interviews

- » Experts focused persistently on the fact that addiction is a brain-based phenomenon and that neurobiological systems are central in understanding how addiction works and why it occurs. They emphasized how addiction can be more functionally defined as an impairment of rational decision-making. This emphasis on definitions, along with the specific definitions emphasized, suggested that experts assume the public largely thinks of addiction as a moral rather than a biological issue and that a fair share of the expert discourse is based on this assumed pattern of public perception.
- » The expert discourse also stressed a common etiological explanation — that addiction arises because of a complex confluence of genetic and environmental factors. This interaction was described as complex and giving rise, because of variation in both variables in the equation, to incredible differences between individuals in susceptibility and resilience to addiction.
- » The expert discourse also focused heavily on *intervention*. There was a common view that quality matters — in short, that not all interventions are created equal and that the work of addiction specialists is to replace ineffective interventions with those that are evidenced-based. The expert discourse also focused on the timing of interventions — that they should occur early for maximal benefits. Experts also emphasized that intervention needs to be sustained over time and incorporate multiple modalities of treatment.

- » Despite these points of consensus, analysis revealed a key tension within this field — a debate about the appropriateness of a more inclusive concept of addiction. On one side of this debate was an argument for a category of addiction that would include both substance and behavioral addictions. Others in the field, however, were weary of lumping these addictions into one concept. These latter experts believed that there were considerable differences in process and etiology between “types” of addiction and, therefore, advocated a more strictly delineated taxonomy of addiction.

Cultural Models Interviews

- » Cultural models interviews revealed that Albertans apply a set of two dominant assumptions in thinking about **what addiction is**:
 - ◆ *Addiction is a dependence on a foreign chemical — narrowly drugs or alcohol; and*
 - ◆ *Addiction is an internal “need” response — a process of insatiable and irrational need that takes place within the individual.*
- » A second set of cultural models was used in thinking about the **causes of addiction**. These models form a complex set of both general and more specific assumptions that are brought to bear in understanding causation. The general assumptions in this set included:
 - ◆ *Addiction results from derailed development.* A host of childhood experiences were viewed as potential causes for addiction, including trauma, exposure to addictive behaviors and inadequate parenting.
 - ◆ *There are proximate triggers of addiction, such as access or escapism.* The most likely scenario for the development of an addiction was when an individual who has experienced derailed development later experiences the proximate triggers.
 - ◆ *There is a perceived continuum of control.* At one end of the continuum, an individual has complete control over their behaviors and actions, while at the other there is a complete absence of control. Addiction was caused when an individual reached a *tipping point* on this continuum.
 - ◆ *Some things are just too addictive.* A common and specific set of drugs — crack, heroin and methamphetamines — were perceived as so powerful that, once taken, they quickly result in chemical dependencies that are difficult if not impossible to break.
 - ◆ *Damage done is damage done, or addiction is incurable.*
 - ◆ *The power of will explains individual differences or who will become addicted and who will not.*
- » Research suggested that there were **relationships between the cultural models used to think about what addiction is and its causes**. When Albertans use certain definitional models they

also use certain causal models. This is to say that there are patterned associations between models from these domains such that when a model from one set is used, a corresponding model from the other set is also employed. Furthermore, research suggests that this co-recruitment occurs in highly patterned ways. In this way we found, for example, that when individuals thought about addiction as an internal process, they assumed it to be caused by derailed development and tended not to employ other available causal models.

- » One of the most important findings from this research is that **the cultural models employed to reason about the causes of addiction structured perceptions of effective and appropriate treatments**. In this way, certain treatment modalities, interventions and policies become easier or harder to think based on the specific model(s) of causation employed.
 - ◆ When Albertans employed a *derailed development* causal model, they reasoned that addiction can be prevented by focusing on childhood and development; that the root causes of addiction must be addressed; that community and society play a role; and that intervention involves the government.
 - ◆ When employing a *proximate triggers* model of causation, Albertans concluded that addressing the environments surrounding individuals is an essential component of intervention.
 - ◆ When informants approached the issue of causation through the *continuum of control* model, they reached conclusions that gradual weaning and early treatment were effective and necessary components of intervention.
 - ◆ The use of the *damage done* assumption structured opinions that treatment may assuage symptoms but that underlying causes are beyond repair and that long-term and ongoing treatment are necessary to manage addiction symptoms.
 - ◆ Finally, when employing a *willpower* assumption in understanding issues of causation, Albertans concluded that intervention is fundamentally about an individual cultivating the desire and discipline to change their behaviors.
 - » Research also suggested that understandings of causation shape two very different perspectives of the **responsibility for addiction**: *Addicts are not to blame* and *Addicts are to blame*. Research suggested that informants' vacillation between these two views of responsibility was linked to the specific model(s) of causation they employed. When they used one set of causation models — *derailed development*, *proximate triggers*, *continuum of control* and *damage done* — they reasoned that individuals are *not* responsible for their addictions. However, when informants used the *some things are just too addictive* causal model they reached conclusions that individuals *are* responsible for their behaviors.
- Mapping the Gaps**

The research identified the following gaps between the ways that Albertans and experts understand the issue of addiction:

- » *Definitional Focus* — Experts view addiction as a brain- and biologically-based concept, while Albertans frequently assume the issue is about the properties of external chemicals.
- » *Causational Process* — While experts have an understanding of addiction causation and susceptibility that is based in the science of the gene-environment interaction, Albertans lack an understanding of this dynamic interactional process and have their own, decidedly more discrete, ideas of causation.
- » *How Development Happens* — Experts expressed complex and rich understandings of developmental processes and how such processes influence addiction. Albertans, while clearly implicating the process of development as a key factor in explaining addiction causation, lack an understanding of how development actually “works.”
- » *Where the Processes Occur* — Experts focused on the brain as the location where addiction happens. Albertans, on the other hand, had a vague and imprecise sense of where addiction occurs — defaulting to general explanations of experiences somehow getting “embedded” into individuals.
- » *Responsibility* — Whereas experts clearly place the onus of responsibility on neurological and bio-developmental *processes*, Albertans have mixed opinions about responsibility — in many places blaming the addict and his or her lack of willpower.
- » *Potential for Change and Intervention Approach* — Experts have clear ideas and place a strong emphasis on the fact that addiction *can* be addressed and that there are evidence-based programs that have been shown effective in this regard. Albertans, on the other hand, frequently conclude that addiction is an affliction about which nothing ultimately can be done. When informants did see intervention as possible, they focused on treatment and on increasing the *quantity* of intervention, with no recognition of the importance of programmatic quality.

Communications Implications

- » There are many implicit understandings that limit public thinking and narrow perceptions of certain solutions and programs around addiction. However, there are also assumptions that hold promise in creating broader understandings of the issue and may therefore be helpful in translating the science of addiction. Such promising associations include the connections that Albertans make between early child development and addiction, or the implicit relationships they draw between community, society and government, and solutions to addiction issues.
- » The *connections* that Albertans draw between more specific aspects of the issue are of paramount importance in designing more effective communications on addiction. Activating clusters that contain assumptions that run against and obscure the science or that are unproductive in thinking about public policy and programmatic solutions is a very real danger in messaging

about addiction. The connections and the complexity of the relationships between assumptions point to the need for communicators to be aware and deliberate in how they navigate this swamp of public perception.

- » More specifically, the connections between definitional and causal understandings and, in turn, the power of causal assumptions to shape thinking about solutions and responsibility highlight the pressing need for messages to activate internal process-based definitional understandings and avoid cuing co-existing assumptions that focus on the properties of a narrow range of external substances.

APPENDIX D: METHODS OF ANALYSIS

Content Analysis

We coded the entire sample of 221 quantitatively in order to assess the content of media coverage around early child development, child mental health and addiction. In this part of the analysis, we coded each story for whether the storytelling style was primarily episodic or thematic coverage, or a combination of the two. As expounded by Shanto Iyengar, a leading scholar on framing in the media, episodic frames maintain a focus on individuals and single events.²⁴ This type of coverage keeps the issue in the private realm, highlighting efforts to improve the character or effort of the person experiencing the problem. Thematic frames, by contrast, focus on issues and trends over time. They do this by examining what, at a community or systems level, led to the problem being described, and then identifying solutions and reforms in public policy arenas.

We were also interested in describing the general content of the media we sampled. Therefore, we coded each piece of media for the frequency of topics and the frequency of solutions included. We enumerated important frame elements in the stories, including the tone of the coverage as well as the dominant messengers or spokespeople included in the media. Finally, we coded each piece for the media source (television or newspapers) and for the section of the newspaper in which the article appeared (e.g., op-ed). In general, the quantitative part of the analysis allows for an understanding of *what* is in the media.

Qualitative or Thematic Analysis

While the quantitative analysis describes the content of the media as it relates to early child development, in the qualitative analysis we analyze *how* the media tells stories about early child development, child mental health and addiction. That is, in this part of the analysis we analyze the dominant media script or narrative arc. This qualitative part of the media analysis is less about cataloguing what is explicitly said than it is about identifying the implicit understandings that the coverage conveys. Our coding strategies of the media texts included the types of topics that were covered in the texts, how topics were defined as

“problems” deserving of public attention, how the texts attributed responsibility for these problems, the causal stories conveyed, and the potential solutions proposed. Furthermore, in this qualitative analysis we also note significant absences in the coverage (i.e., an issue or theme that is important to experts and advocates we interviewed and received no media attention).

Cognitive Analysis

Finally, we compared findings from the media analysis with results from the cultural models interviews to determine how media frames are likely to cue up certain cultural models, how media frames may support existing models, how they conflict with existing cultural models, and how cultural models are likely to be applied to fill or provide information for the public when media accounts are incomplete, lack information, or do not provide adequate evidence for causes or solutions. In this way, the media analysis enables FrameWorks to identify the likely cognitive impacts and to use these implications in formulating strategic communications recommendations for experts and advocates who communicate about early child development, child mental health and addiction.

APPENDIX E: THEORETICAL BACKGROUND

Scholarly work on mass communication generally begins with the premise that modern mass media affect the way that people understand the world they live in. Media framing effects are defined as the ways in which “events and issues are packaged and presented by journalists” that “fundamentally affect how readers and viewers understand those events and issues.”²⁵ However, the strength of those effects and the exact mechanisms by which the media influence the public’s attitudes, opinions and processes of making meaning have been subject to much scholarly debate since the turn of the last century.²⁶

Recent work on the public’s reception of media messages has rejected the determinism that characterized early studies of mass communication. That is, media scholars now recognize that the effect of media frames in determining public thinking about social issues is not unidirectional. Rather, the relationship between the media and the public is now theorized as dialectical, dynamic and socially situated. On the one hand, scholars show that the media actively creates the frames that people use to interpret and engage in public events. That is, frames have an important role in the construction of reality.²⁷ On the other hand, scholars recognize that the public draws on preexisting cultural models and past experiences to actively engage with and make sense of media messages. According to sociologists Gamson and Modigliani, “Media discourse is part of the process by which individuals construct meaning, and public opinion is part of the process by which journalists ... develop and crystallize meaning in public discourse.”²⁸

Understanding this co-construction, the literature on media framing has empirically documented the links between news frames and patterns in the public’s thinking on specific issues. In addition, scholarship has identified the mechanisms by which media affect public perception of social issues.

Media frames have been shown to influence *what* enters the mind of audiences who have been exposed to that frame.²⁹ Studies have documented how certain frames increase the likelihood that audiences will draw out predictable implications from a story,³⁰ fill in missing information, and make assumptions about what has occurred based on cues in the media frame.³¹ In this analysis, we focus on both what is a standard part of the CMH script as well as what is missing in media narratives regarding children's mental health and how the viewing public implicitly fills in this missing information.

Media frames operate to increase, deepen and enhance or, conversely, suppress and diverge from default thought patterns generated by the story. When media frames are congruent with the public's cultural models, they generally reinforce default patterns of thinking on the issue, although studies have shown that the public tends to accord different weights or priorities to aspects of an issue than do journalists.³² When media frames are inconsistent with or contradict the public's understanding of that issue, scholars have found that viewers often pay more attention to the frame so that they can either incorporate it into their existing understandings or reject it entirely. For example, studies have shown that when people are exposed to cues in political messages that are inconsistent with their stereotypes about a racial or ethnic group, they engage in *conscious* rather than automatic processing of the racial content of the message.³³ Price et al. describe the enhancing and suppressing capacities of media frames as a kind of "hydraulic pattern, with thoughts of one kind, stimulated by the frame, driving out other possible responses" (p. 501).

Finally, media frames also have evaluative implications among the audience, specifically audiences' perception of what *causes* the social issue being covered and what *should be done to address the problem*. Iyengar's classic study of episodic versus thematic framing demonstrated a powerful link between media frames and an audience's subsequent evaluation of an issue. He found that when subjects were exposed to episodic frames regarding poverty, or frames that represented poverty as a discrete, isolated and individualistic event, they were more likely to make personal rather than systemic attributions.³⁴ In Gilliam and Iyengar's study described above, participants who were exposed to suspects who were identifiably African-American were more likely to support punitive approaches to crime reduction. In sum, media frames not only impact how people think about an issue at the moment they read or watch the news, but these frames have measurable impacts on their subsequent evaluations and decision-making processes about an issue.

ENDNOTES

- ¹ Kendall-Taylor, N. (2010). *Experiences get carried forward: How Albertans think about early child development*. Washington, DC: FrameWorks Institute. Kendall-Taylor, N. (2010). “Kids must have mental health ... but they can't, can they?": *How Albertans think about child mental health*. Washington, D.C.: FrameWorks Institute. Kendall-Taylor, N. (2010). *Rounding up the associations: How perceptions of addiction are recruited*. Washington, DC: FrameWorks Institute.
- ² Strategic Frame Analysis™ includes a variety of methods such as: cultural models interviews, focus groups, media content analysis, cognitive media content analysis, Simplifying Models development and empirical testing of frame effects using experimental surveys.
- ³ Quinn, N., & Holland, D. (1987). Culture and cognition. In Holland, D. & Quinn, N. (Eds.), *Cultural models in language and thought* (pp. 3-40). Cambridge, MA: Cambridge University Press.
- ⁴ See: Gerbner, G., & Gross, L. (1976). Living with television: The violence profile. *Journal of Communication*, 26(2), 172-199.
- ⁵ O'Neil, M., Mikulak, A., Morgan, P., & Kendall-Taylor, N. (2009). *Competing frames of mental health and mental illness: Media frames and the public understandings of child mental health as part of Strategic Frame Analysis*.™ Washington, DC: FrameWorks Institute.
- ⁶ The coding approach allowed single stories to be coded for multiple themes, resulting in total theme count that exceeds the total sample size.
- ⁷ Iyengar, S. (1991). *Is anyone responsible?: How television frames political issues*. Chicago, IL: University of Chicago Press.
- ⁸ Conversation with study circle participant, February 2010.
- ⁹ While this media analysis is not a direct comparison with our analysis of coverage of child mental health and illness in U.S. media, that initial report informed the current study. At points throughout this analysis, important divergences with U.S. coverage are indicated and the likely implications of those differences are noted.
- ¹⁰ Kendall-Taylor, N. (2010). *Experiences get carried forward: How Albertans think about early child development*. Washington, DC: FrameWorks Institute.
- ¹¹ O'Neil, M., Mikulak, A., Morgan, P., & Kendall-Taylor, N. (2009). *Competing frames of mental health and mental illness: Media frames and the public understandings of child mental health as part of Strategic Frame Analysis*.™ Washington DC: FrameWorks Institute
- ¹² O'Neil, M. (2010). *Between cowboys and barn raisers: The challenges of explaining child mental health and development in Alberta*. Washington, DC: FrameWorks Institute.
- ¹³ Kendall-Taylor, N., & McCollum, C. (2009). *Determinism leavened by will power: The challenge of closing the gaps between the public and expert explanations of gene-environment interaction*. Washington, DC: FrameWorks Institute. Kendall-Taylor, N., & Mikulak, A. (2009). *Child mental health: A review of the scientific discourse*. Washington, DC: FrameWorks Institute.
- ¹⁴ Kendall-Taylor, N. (2010). “Kids must have mental health ... but they can't, can they?": *How Albertans think about child mental health*. Washington, DC: FrameWorks Institute.

- ¹⁵ O’Neil, M., Mikulak, A., Morgan, P., & Kendall-Taylor, N. (2009). *Competing frames of mental health and mental illness: Media frames and the public understandings of child mental health as part of Strategic Frame Analysis*.™ Washington, DC: FrameWorks Institute.
- ¹⁶ Kendall-Taylor, N. (2010). *Rounding up the associations: How perceptions of addiction are recruited*. Washington, DC: FrameWorks Institute.
- ¹⁷ Kendall-Taylor, N. (2010). *Experiences get carried forward: How Albertans think about early child development*. Washington, DC: FrameWorks Institute.
- ¹⁸ Kendall-Taylor, N. (2010). *Experiences get carried forward: How Albertans think about early child development*. Washington, DC: FrameWorks Institute.
- ¹⁹ O’Neil, M. (2010). *Between cowboys and barn raisers: The challenges of explaining child mental health and development in Alberta*. Washington, DC: FrameWorks Institute.
- ²⁰ Kendall-Taylor, N. (2010). *Rounding up the associations: How perceptions of addiction are recruited*. Washington, DC: FrameWorks Institute.
- ²¹ Kendall-Taylor, N. (2010). *Experiences get carried forward: How Albertans think about early child development*. Washington, DC: FrameWorks Institute. Kendall-Taylor, N. (2010). *Rounding up the associations: How perceptions of addiction are recruited*. Washington, DC: FrameWorks Institute.
- ²² Kendall-Taylor, N. (2010). *Experiences get carried forward: How Albertans think about early child development*. Washington, DC: FrameWorks Institute.
- ²³ Gilliam, F. (2006). *Vivid examples: What they mean and why you should be careful using them*. Washington, DC: FrameWorks Institute.
- ²⁴ Iyengar, S. (1994). *Is anyone responsible?: How television frames political issues*. Chicago, IL: University of Chicago Press.
- ²⁵ Price, V., Tewksbury, D., & Powers, E. (1997). Switching trains of thought: The impact of news frames on readers’ cognitive responses. *Communication Research*, 24(5), 481-506.
- ²⁶ Scheufele, D.A. (1999). Framing as a theory of media effects. *The Journal of Communication*, 49(1), 103-122.
- ²⁷ McQuail, D. (1994). *Mass communication theory: An introduction* (3rd ed.). London, England: Sage Publications and Tuchman, G. (1978). *Making news: A study in the construction of reality*. New York, NY: Free Press.
- ²⁸ Gamson, W.A., & Modigliani, A. (1989). Media discourse and public opinion on nuclear power: A constructionist approach. *American Journal of Sociology*, 95(1), 1-37.
- ²⁹ Price, V., Tewksbury, D., & Powers, E. (1997). Switching trains of thought: The impact of news frames on readers’ cognitive responses. *Communication Research*, 24(5), 481-506. Valkenburg, P.M., Semetko, H.A., & De Vreese, C.H. (1999). The effects of news frames on readers’ thoughts and recall. *Communication Research*, 26(5), 550-569.
- ³⁰ Price, V., Tewksbury, D., & Powers, E. (1997). Switching trains of thought: The impact of news frames on readers’ cognitive responses. *Communication Research*, 24(5), 481-506.
- ³¹ Gilliam, F.D., Jr., & Iyengar, S. (2000). Prime suspects: The influence of local television news on the viewing

public. *American Journal of Political Science*, 44(3), 560-573. Gilliam and Iyengar, for example, demonstrated that local news coverage of crime followed a standard script. Namely, that crime stories are typically about violent crime, feature a particular “type” of suspect, and that crime news often entails racialized imagery. In a series of experiments, they found that even when subjects were exposed to crime stories that did not feature a particular suspect, participants falsely recalled having seen a suspect and a large majority identified the non-existent suspect as African-American. This work and other similar studies have documented that viewing audiences fill information into news stories that follow standard and ubiquitous media scripts.

³² Neuman, W.R., Just, M.R., & Crigler, A.N. (1992). *Common knowledge: News and the construction of political meaning*. Chicago, IL: University of Chicago Press.

³³ Mendelberg, T. (2001). *The race card: Campaign strategy, implicit messages, and the norm of equality*. Princeton, NJ: Princeton University Press. Valentino, N.A., Hutchings, V.L., & White, I.K. (2002). Cues that matter: How political ads prime racial attitudes during campaigns. *American Political Science Review*, 96(01), 75-90.

³⁴ Iyengar, S. (1991). *Is anyone responsible?: How television frames political issues*. Chicago, IL: University of Chicago Press.

