FRAMEWORKS INSTITUTE®

"Kids Must Have Mental Health ... But They Can't, Can They?"

How Albertans Think About Child Mental Health

A FRAMEWORKS RESEARCH REPORT

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CMH REPORT 1 OF 2

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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.

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INTRODUCTION

The research presented here was prepared for the Alberta Family Wellness Initiative supported by Norlien Foundation. The goal of the project is to facilitate the design and advancement of more effective ways of communicating about early child development and child mental health in Alberta. This particular report lays the groundwork for much of that research by examining Albertans' initial and implicit understandings of the topic of child mental health.

The FrameWorks Institute recognizes that patterns of understanding are heavily influenced by culture and are therefore likely to vary between cultural groups. Culture, after all, is an important part of how we make sense of, and make decisions in, our shared social worlds. For this reason, this report examines the culturally specific patterns of understanding employed by Albertans. These patterns are analyzed by employing an initial data set gathered in mid-2009 in the United States on the issue of child mental health, and comparing these data with those FrameWorks has more recently gathered in Alberta. In this comparative analysis, FrameWorks set out both to confirm similarities in the culturally patterned understandings employed by Americans and Albertans in understanding child mental health, and to enumerate the specific parts of the cognitive terrain where there are key differences in the implicit ways that members of these groups understand child mental health.

Despite cultural similarities between the United States and Alberta, the cultural patterns of understanding that individuals within these groups share and employ in processing information are likely to vary in subtle but important ways. Differences between these patterned ways of making sense of information shape the effect of messages and are therefore highly relevant to consider in communications. The purpose of this report is to present two comparisons on the topic of child mental health that are especially germane for thinking about how to frame this issue.

This report's first comparative task is to compare how Americans and Albertans think about child mental health. The primary reason for undertaking this comparison is that FrameWorks' initial research on the issue of child mental health was conducted in the United States. In order to use and draw inferences from this larger initial U.S. sample, it is necessary to chart the differences between how Americans and Albertans think about the issue of child mental health. A cross-cultural comparison demonstrates which findings from our initial U.S. body of research hold in Alberta and warrant further testing in this context, and which findings and recommendations would be ineffective in Alberta. In this way, comparing U.S. and Alberta patterns of thought about child mental health was conducted in order to avoid a naïve cross-cultural application of communication recommendations that ignores culturally relative ways of processing information. Armed with the knowledge of how Albertans reason about child mental health and how these patterns of reasoning differ from those employed by Americans, messages about child mental health can be framed to have optimal and intended effects in the Albertan context.

A second comparative task in this report is to hold up the ways that Albertans think about child mental

health to the key messages and themes of the science on this issue — what we call the "science story" of child mental health. Therefore, FrameWorks' research on both the expert discourse on and Albertans' understanding of child mental health are compared to identify the specific places where gaps exist between these two understandings — a process that FrameWorks calls "mapping the gaps." With improved knowledge of these gaps and the specific understandings that they divide, we move toward the second stage of Strategic Frame Analysis™: identifying communications strategies that close these gaps, increase the public's access to scientific information, and activate more productive ways for the public to think and process information on child mental health.

In sum, the work of this report is comparative in nature — both between American and Albertan cultural patterns of reasoning, and also between ordinary Albertans and those who conduct scientific research on child mental health. This report is meant to serve as a foundation for subsequent research that will develop and test specific strategies to translate and reframe the scientific concepts of child mental health in Alberta. The full scope of this project includes an array of methods associated with the Strategic Frame Analysis™ approach: cultural models interviews, peer discourse sessions, media content analysis, cognitive media content analysis, Simplifying Models development and empirical testing of frames using experimental surveys.[1]

The remainder of this report is organized as follows: we (1) present a summary of key findings; (2) review the research methods used to produce the findings; (3) present findings from both comparative tasks and (4) conclude with a set of recommendations designed to improve communications practice around this issue, including the key takeaways that will inform the next phase of our research.

SUMMARY OF FINDINGS

U.S.-Alberta Similarities

» Both Americans and Albertans assume 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 are 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 viewed 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 have 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.

METHODS

A. Cultural Models Interviews

The cultural models findings presented below are based on 20 in-depth interviews conducted in Calgary by two FrameWorks researchers in December 2009 and January 2010. These interviews were compared to: (1) a set of 20 interviews with the same demographic of Americans;[2] and (2) expert interviews conducted with scientists as well as other sources of expert information.[3]

Cultural models interviews require gathering what one researcher has referred to as a "big scoop of language."[4] Thus, a large enough amount of talk, taken from each of our informants, allows us to capture the broad sets of assumptions that informants use to make sense and meaning of information. These sets of common assumptions and understandings are referred to as "cultural models." Recruiting a wide range of people and capturing a large amount of data from each informant ensures that the cultural models we identify represent shared patterns of thinking about a given topic. And, although we are not concerned with the particular nuances in the cultural models across different groups at this level of the analysis, we recognize and do take up this interest in subsequent parts of the larger research project.

Subjects

Informants were recruited by a professional marketing firm through a screening process developed and employed in past FrameWorks research. Informants were selected to represent variation along the domains of ethnicity, gender, age, residential location (i.e., both in Calgary and in rural areas well outside of the city), educational background and political ideology (as self-reported during the screening process). Previous FrameWorks research, as well as the cultural models literature more generally, have found education to be an important source of variation in the way people talk and think about social issues such as education and child development. For this reason, we were particularly sensitive to capturing variation in educational attainment in our sample.

We were careful to recruit a sample of civically engaged, news-attentive persons. We did so because cultural models interviews rely on the ability to see patterns of thinking — the expression of cultural models through talk — and it is therefore important to recruit informants whom we have reason to believe actually *do* talk about these issues. Furthermore, assuring that participants access news media in some way allows us to comment in another part of our research on how patterns of media coverage relate to patterns of understanding that people draw on to make sense of this information. Moreover, to ensure that participants were likely to have ready opinions about these issues without having to be overly primed, the screening procedure was designed to select informants who reported a strong interest in news and current events, and maintain an active involvement in their communities through their participation in a wide range of community and civic engagements.

Efforts were made to recruit a broad range of informants. However, the sample is not meant to be representative and the demographic categories that we use to identify the quotes of interviewees in the text below should not be mistaken as categorical reflections of the viewpoints of any particular groups.

Interviews

Informants participated in one-on-one, semi-structured "cultural models interviews" lasting 1½ to 2½ hours. Consistent with interview methods employed in psychological anthropology, cultural models interviews are designed to elicit ways of *thinking* and *talking* about issues — in this case, ideas of good versus poor mental health, adult and child mental health, mental illness, and treatment.

The interviews were designed to begin broadly and in as open-ended a way as possible to uncover the organizational mental models that *informants* used to understand mental health — an inherently broad concept. Informants were first asked to respond to a general issue ("What do you think about mental health?") and were probed throughout the interview to explain their responses ("You said X, why do you think X is this way?", or "You said X, tell me a little bit more about what you meant when you said X," or "You were just talking about X, but before you were talking about Y, do you think X is connected to Y?"). This pattern of probing leads to long conversations that stray (as is the intention of the interview) from the original question. The purpose is to see what connections the informant draws from the original topic. Informants were then asked about various valences or instantiations of the issue ("What do you think about good versus poor mental health?") and were probed for explanations of these differences (You said that X is different than Y in this way, why do you think this is?"). The pattern of questioning begins very generally and moves gradually to differentiations and more specific topics.

Near the end of the interview, to avoid biasing subsequent data through the priming effects of these questions, informants were asked a series of more specific questions about child mental health.

As we were interested in understanding whether Albertans understand mental health *in general* using different cultural models than those applied in making sense of *child* mental health, it was necessary to begin with questions about "mental health" that were designed to be as open-ended as possible and to then "back into" questions about the more specific, and possibly biasing, subjects like child mental health. This approach also allowed us to understand the *general* models that Albertans use to understand mental health without respect to the age of individuals affected, rather than priming discussions by beginning with questions about a specific age group. Put another way, the open-ended nature of the guide allowed informants to identify and introduce the information and entailments that *they* implicitly connected to the subject of mental health, rather than gathering information about the connections that we *suspected* they would make, and thereby biasing results. However, as previous FrameWorks research has suggested, children are not a population that people implicitly connect to conversations about mental health.[5] Thus, it was necessary, after going through the more open-ended questions, to probe more specifically for the assumptions that individuals bring to mental health and illness in children.

Another question of interest was whether individuals would implicitly default to discussions of mental illness when we brought up "mental health" more generally. Therefore, mental illness was another topic covered later in the interview to avoid possible priming effects early in the interview. In other words, if specific questions about mental illness preceded general questions about mental health, the interview tool would have lost its ability answer the question of whether or not individuals connect mental illness to the general topic of mental health, or whether these topics are cognitively distinct in the minds of Albertans.

We conclude by reminding readers that the strength of the cultural models interview method and the data it produces rest in this method's power to reveal *general patterns* of thinking (cultural models) that Albertans commonly, repeatedly and implicitly employ in talking and thinking. In short, these interviews allow us to see the general patterns that implicitly structure the way Albertans think about a topic. Based on the use of these patterns by this wide range of informants, we say these implicit patterns of assumptions and understandings constitute *Albertan cultural models*.

All interviews were recorded and transcribed for analysis. Quotes are provided in the report to illustrate major points, but identifying information has been excluded to ensure informant anonymity.

Analysis

Analytical techniques employed in cognitive and linguistic anthropology were adapted here to examine how informants understand concepts of mental health in general and child mental health and treatment more specifically. Elements of social discourse analysis were applied to identify larger, shared cultural models. First, patterns of *discourses*, or common, standardized ways of talking, were identified across the sample. These discourses were analyzed to reveal tacit organizational assumptions, relationships, logical steps and connections that were commonly made but taken for granted throughout an individual's transcript and across the sample. In short, our analysis looked at patterns both in what *was* said (how things were related, explained and understood) as well as what was *not* said (assumptions).[6]

B. Establishing the Science Story

To synthesize the key themes of the science story of child mental health, FrameWorks relied primarily on two methods: one-on-one *expert interviews* with scientists specializing in this area of research and *participant observation and elicitations* at professional meetings and conferences.[7]

Expert interviews

FrameWorks first located appropriate experts who could articulate the latest scientific research on child mental health by identifying the authors of the most widely sited and influential pieces of scholarship in this area. These scientists were interviewed and then helped FrameWorks to identify additional experts in the field whom they believed would be able to provide additional insights. Thus a form of snowball

sampling was used to identify expert informants. We cross-referenced the lists provided to us by these "key" scientific informants, and, based on the overlap (i.e., names that appeared on each list), selected a number of experts to interview. One-on-one interviews were then conducted with these experts via telephone. The interviews lasted between one and 1½ hours and, with the participants' permission, were recorded and transcribed for review and analysis.[8]

Elicitation sessions and participant observation at professional meetings

FrameWorks also attended professional meetings, where experts met to discuss and present their research. At these meetings, FrameWorks researchers employed two methods to gather data for constructing the science story. First, FrameWorks has had the opportunity to conduct sessions designed specifically to elicit the most important and agreed-upon elements of the science in this area. Organized around a set of guiding questions, FrameWorks researchers moderated discussions in which scientists offer and agree on elements that should be included in the story. FrameWorks then analyzed these data and synthesized key points and common themes. More subtly, during these meetings, FrameWorks researchers conducted participant observation.[9] Participant observation notes were compared among FrameWorks' researchers, and common elements and themes were incorporated into the story.

The core story is presented in detail in the appendix, but the following were key components:

» ***The existence of child mental health***

  – Even in very young kids

  – Variability (types, duration, severity)

» ***Causes***

  – Interaction of genetic predispositions and environmental conditions

  – Relationships and experiences over time

  – Disproportionate outcomes caused by disproportional exposure to risk factors

» ***Prevention, treatment and promotion***

  – Early identification

  – Prevention requires a focus on the brain

  – Many evidenced-based treatments but not widely accessible

  – Treatment of child different from adult mental health

  – Need to integrate treatment into more traditional health services

– Need to focus on promotion policies

» ***Community and contexts of support***

– Policies that focus at community level as the source of the supports for families and children — the places where interactions and experiences take place

– An ecological approach — the child and family embedded in a culture and ecology that affects and is affected by individual mental health

FINDINGS

Comparison #1: American and Albertan Cultural Models

In the following comparison we first outline the patterns of reasoning that both Americans and Albertans apply in thinking about child mental health and discuss the implications of these similarities. This is followed by an analysis of the differences in the ways that individuals from these groups think and talk about child mental health and a discussion of the implications of these findings.

A. U.S.-Alberta Similarities

1. Mental "health" is a negative state

Like their American counterparts, Albertans approached the subject of mental health with the assumption that mental *health* is a negative state. In short, Albertan informants assumed that discussions of mental *health* were really about mental health *problems*.

Interviewer: I want you to tell me what you think about mental health.

Informant: Well, look at homelessness, and so forth. In a lot of cases these people that are homeless, have an underlying health difficulty that probably falls under the "mental health" guideline, and as I understand, "mental health" is what's wrong with the person.

Urban Woman, 45

Interviewer: So what about kids and mental health. Do children have mental health?

Informant: Well I think that there's a really good chance that a lot of that's where it starts, during abusive situations or some form of neglect. That's where the cycle can start.

Rural Woman, 48

I'm a sum of my experiences, so I would have to say that I have a very good understanding of mental health. Having had, in my family, mental health issues. It has a huge stigma on it. And it's very unfortunate, because even nowadays, even the little distance we've come in trying to eliminate the stigma, or at least reduce the stigma, we still have a long ways to go.

Urban Woman, 46

2. Missing process

FrameWorks' research in the U.S. has revealed that Americans generally lack an understanding of *how* mental health happens. There is a dominant assumption, also applied in other areas of thinking about child development, that mental health is about outcomes — namely that mental health is about how a person *feels* and *behaves*. The implicit attention to outcomes has been shown to obscure and blind Americans to the processes (and consequently the importance of these processes) that shape, determine and affect outcomes.

Research confirmed that Albertans also lack top-of-mind attention to the processes that shape mental health. More specific probing revealed that, in addition to not inherently paying attention to process, when probed to do so, Albertan informants had a decidedly fuzzy and incomplete understanding of what shapes mental health outcomes. When pushed to talk about why people have mental health, the only explanations that Albertans were able to generate were that mental health derives from emotions or that it is passively absorbed through "osmosis" from the people who surround an individual.

The organic or biological component for me is more tangible because it can be corrected and it has to *do* with *something*. As opposed to, the other is more of a psychological, psychosocial … um … uh … coping type thing that through osmosis happens. It's a buildup. Mind you it may not manifest itself until somebody is 16, you know?

Urban Woman, 51

Interviewer: So now, let's talk about "mental health" in young kids. Do you think a child can have good or bad mental health?

Informant: Yes. Absolutely.

Interviewer: Why?

Informant: Well, through osmosis from the parents. You know, um … it's what they mimic. Kids learn from practice, right?

Urban Woman, 50

Interviewer: Do you think a person with mental health problems can get help?

Informant: Some, not all. I would say there's a form of help for probably about 85% of them. They may not be functionable to the normal level, but there is a form of help where they can survive and get through the day, and be productive in society, and so forth. 15% of them, no. There's just no help.

Interviewer: What makes them different?

Informant: Well, to be very truthful, I don't know, I just don't understand *how* it works! I don't! But I have seen it.

Urban Man, 60

3. Personal control

Results of the American research revealed an underlying assumption about *personal control* that was powerful in shaping how informants processed and responded to information on child mental health. American informants assumed that people have control over their emotions and, based on the assumed connection between emotions and mental health, their mental health. American informants also applied this understanding in thinking about treatment for mental health problems by reasoning that it is a person's responsibility to take control of the situation and, if they are not able to control their emotions, seek help from family or friends.[10]

Like Americans, Albertans employed the assumption that individuals are responsible for controlling their emotions, and seeking out assistance with their mental health problems. Albertan informants talked at length about how *controlling* and *taking responsibility* were keys to dealing with mental health problems.

Interviewer: So what is the link between those experiences and those signs of poor mental health?

Informant: Faith.

Interviewer: Tell me what you mean.

Informant: Faith in yourself to try different things. Faith in yourself. If you don't have faith in yourself … then you will never take that extra step and you will never try different things.

Rural Woman, 45

You have the option of taking this street or [that] street to your place of work, but you always do this one, back and forth, back and forth, back and forth, this is a pattern. And you may be missing some real beautiful gardens and flowers over there or something else that stimulates your creativity over here but you're really committed to this pattern and how are you going to get out of that pattern or even recognize that you're in one? So, it's like what do you … do to break that pattern? And so I see that, in relation to mental health issues. You've got to recognize, and you need enough self-worth and commitment and courage to face the original, whatever that was there … I think that you have the ability to steer away from things like depression. Having the ability and the skills to be *aware* and *deal*,

you know, it's being cognitive of these things. I think the key is being aware.

Rural Woman, 48

4. Mental health is distinct from mental illness.

Interview data showed that both Americans and Albertans assume that mental health and mental illness are distinct and discrete concepts — that they are caused by different factors and therefore that they correspond to different treatments. Whereas mental health is assumed, by both Americans and Albertans, to be in the realm of emotions and curable through greater responsibility over improving one's "mindset," implicit assumptions structured an understanding that mental illness is caused by genes and the chemicals they create. Furthermore, like Americans, Albertans operated under the assumption that while the symptoms of mental illness could be assuaged and "managed," there was no way of curing this state. In this way, mental health is understood by both American and Albertans as being shaped by the experiences that lead to emotions and is therefore under a person's control to improve. Mental illness, on the other hand, is perceived to be caused by genes or injury, and is therefore seen as being out of a person's control and largely incurable.

Interviewer: We've been talking about mental health. So what about mental illness?

Informant: That's different. It's biological, organic. We're talking serotonin levels, you're talking bipolar, you're talking schizophrenia, you're talking multiple personality disorders, you're not talking depression, or stress. I think there's a real separation.

Urban Woman, 51

Interviewer: What about "mental illness"? Is that different than what we've been talking about?

Informant: Oh yeah! Because you have to look at mental illness from a physical standpoint. It's not a mental thing. It's a physical thing that's gone wrong, and that's, I mean, no one chooses their child to have schizophrenia, or bipolar disease, or *clinical* depression.

Rural Woman, 55

I wanted to make sure that we were talking about health versus illness because illness seems to be in a different realm in terms of some of the chemical causes or that kind of thing, just sort of the medical stuff.

Rural Woman, 48

We can cure a mental health issue by removing the child from the home, or retraining the parents to

have better habits, but we can't do the same thing with mental illness. We may be able to *treat* it with pills but …

Urban Man, 45

More specifically, Albertan interviews revealed the underlying assumption that mental health is the result of positive emotions and striving for self-confidence and personal control. In short, mental health is an individual's *will* to have and move towards *positive* emotions.

"Mental illness" is something that you may get from a birth defect, or a gene situation, or an injury; you banged your head, and you never recovered from it. As opposed to "mental health" — mental health would bring us back to happiness, depression, sadness, and that would be more the environmental factors, be it pollution, be it what you look at out of your front window every day. If you see the world as a bad place, your mental health, your outlook would be likely to be quite poor. If you look out your window, and you see it as a beautiful place, and your neighbors are nice, and so forth, your outlook would be a lot more positive. And illness is more of a disease. Mental health more of how you see the world around you, and your life specifically around you, as opposed to actually having a disease, or an affliction of some kind.

Urban Man, 45

It's funny, but I think a lot of it [mental health] comes down to self-confidence. A person who has some confidence can deal — can trust themselves to be able to deal with anything that comes along. To know when they need assistance. To know when they can handle it themselves.

Rural Woman, 55

The first thing that pops into my mind is confidence and self-esteem.

Rural Woman, 48

Some people are lucky enough that they can eat whatever they want and they still stay skinny. Some people have to make choices every day and make sure that they keep themselves healthy by exercising, eating healthy, I don't know. It's the same — I think it's [mental health] the same way.

Urban Man, 27

Meanwhile, Albertan informants, like their American counterparts, assumed that mental illness was "physical" — that it was in a person's genes, and therefore, as one informant said, "it's something you can't do anything about."

So, if somebody has the genes for bipolar, and you know, they would still be bipolar at the end of the day. So, to a certain extent, that would be what defined them.

Urban Woman, 51

There's gonna be two factors there, too. One is the gene that you're born with that may already be damaged, or missing, to the environmental health, pollution, drug or alcohol considerations, and other things that may mutate your genes during your lifetime. I don't know that we can do much about the gene that we're born with, although I do know that they manipulate, and can do some pretty remarkable things before a baby is born today, but once I think that baby is born, he's got the genes that he's got, and there's not too much we can do about it. He's gonna have them for his lifetime.

Urban Man, 45

Informant: Well, if you're talking a "physical" problem, then a chemical imbalance in the brain is there from birth.

Interviewer: That's the "mental illness"?

Informant: Yes.

Urban Woman, 51

I think, if a child has mental illness, I think that's already predisposed. Now my exposure to ADHD is minimal. But I would say, that seems like something that's definitely a chemical imbalance, so that would be an illness that needs to be treated. That seems to be something that would be looked at as mental illness and not poor mental health, 'cause I don't think that's environmental.

Urban Woman, 46

Interviewer: Okay, so what about mental illness?

Informant: All you can do with mental illness is be the best that you can be with that situation.

Rural Woman, 45

It's clearly defined [mental illness], this needs to be treated by medicine, then that's the intervention that needs to be there. If it's clearly some kind of chemical imbalance that cannot be treated any other kind of way, then I guess that's what you've got to choose.

Rural Woman, 48

Because informants also assumed that mental illness was caused by chemical imbalances resulting from genes, drugs that rebalance these chemicals were seen as the unique and appropriate answer to these conditions. Striking evidence of this assumption and further demonstration of the fact that Albertans assume a strict division between mental health and mental illness was the fact that drugs were never mentioned in interviews until the topic of mental *illness* had been broached. Put another way, "drugs" were never described as a way to improve mental health, but were discussed as "the only thing you can do" for mental illness. This shows clearly that different sets of assumptions were structuring thinking about these two mental states.

5. Can children have mental health?

When the interview moved from mental health in general to more specific questions around whether or not *children* could have mental health, both American and Albertan informants relied on two different fundamental cultural models about children in explaining their answers. They drew on one cultural model to support their conclusions that children *cannot* experience mental health, and another cultural model to explain why they felt children *could* experience mental health. Frequently, the same informant toggled over the course of an interview between answering the question in the affirmative and in the negative, employing one model to reason through an affirmative answer and another in explaining a negative answer.

This apparent inconsistency is evidence of the fact that there are multiple, in this case dissonant, cultural models that both Americans and Albertans use in thinking and reasoning about child mental health.[11]

A. Children cannot have mental health

FrameWorks' ongoing research has demonstrated that Americans' cultural model of child mental health is multifaceted and complex. On one hand, analysis of interview data has revealed an assumption that children cannot experience mental health. It is assumed that children's minds work differently from adults', and that, because of these differences, children do not have the emotional *capacity* to "really" experience either positive or negative mental health. Careful probing during these explanations pulled apart this assumption to see the specific ways in which informants saw the minds of children as different from those of adults.[12] Informants assumed that children, as compared to adults, have limited ability to experience emotions (to understand, communicate and remember them). This perceptual difference becomes more pronounced as informants compare younger and younger children to adults (e.g., the ability to understand experiences is even less developed in a 2-year-old than in a 5-year-old).

This same assumption was also apparent in the Alberta data.

Informant: Well, you have a different level of reasoning [in an older child]. Through living in the real world. It's that's a level of consciousness thing again [that young children don't have] …

Interviewer: So how would you say mental health is different for a 3-year-old than it is for a 10-year-old?

Informant: Reasoning, communication, understanding, certain things even in terms of "discipline" or "that is wrong, that is right." I mean, you can't punish a 3-year-old for something that they did a week ago. I don't mean "punish," I mean, "correct." But with a 9-year-old, I think that there's a better conversation about why it is the way it is, and there's an understanding, so I think, still, you're going back to that level of consciousness that develops over time. You can't sit and explain things [to a 3-year-old]. With a 9-year-old, they're more exposed, and interdependent on the environment that they have. The 3-year-old's environment is pretty isolated; the 9-year-old's has a lot of other external factors affecting their behavior.

Urban Woman, 51

Interviewer: What about really young kids? Say below the age of 3; do kids that young have mental health?

Informant: I don't associate poor mental health with somebody that young. In terms of an infant, somebody below 3, they're just too busy learning what's around them to really worry about what's in the brain, you know? They're not cognizant enough to be aware of it, you know?

Urban Man, 28

Interviewer: Does it matter what's going on [at an early age], or …

Informant: Well, some people say yes, I say no, but some people do say yes, that it does matter. I personally don't think it does.

Urban Man, 60

B. Children can have mental health: It's the same as adult mental health, only simpler

In addition to employing assumptions that children do not have the requisite emotional development to experience mental health, a different assumption led American and Albertan informants to the conclusion that children *can* experience both positive and negative mental health.

Analysis of Albertan interviews revealed the underlying and shared assumption that *children are little adults* and therefore, as one participant said, "things work the same." The assumption is essentially that emotions that shape mental health are a human universal regardless of age. Employing this assumption, informants explained that children can and do experience mental health, because they are essentially just like adults.

In addition to this assumption, informants drew on a shared understanding that children's worlds are simpler than those of adults. This was apparent in assertions that, while children can experience mental health, this mental health does not have the capacity to be as severe as adult mental health because children have not had as long to accumulate or "store up" enough positive or negative experiences to create extreme emotions. According to this assumption, the factors that influence individuals become more and more numerous and complicated as the individual grows older.

Informant: You take the person who's 20 or 30 years old or whatever, they've had a million more experiences in their life where maybe they just have that poor state of mental health or whatever that it's just *compounded*.

Interviewer: It's interesting, though, when I asked you between the 2- and 8-year-old [is mental health the same] you said "yes" right away. Then I asked you between 2 and 8 and an adult and it was more qualified, I guess.

Informant: Well I think it's just more of the same thing. That's kind of what I'm looking at it like.

Urban Man, 41

You know, the kid at 8 is exposed to a lot more, different ways of thinking, watching you know, kids in different environments opens their eyes to things.

Urban Woman, 51

6. Ageing-up mental health

Finally, when answering open-ended questions about "child" mental health, Albertan and American informants discussed situations and provided examples that referenced older children. In short, like Americans, when Albertans think and talk about "child" mental health, even "early child" mental health, the picture in their heads is a child in pre-adolescence.

Her dad passed away when she was 9 or 10, and so her mom was looking for another man, and so consistency went away, and she's got this core kind of instability.

Rural Man, age 34

Implications of these shared Cultural Models

1. Mental health as a negative state makes promotion hard to think. If individuals assume that discussions of mental *health are* "really" about mental health *problems*, messages about the importance of mental *health* and the *promotion* of this state are decidedly hard to think and therefore difficult to

communicate. The application of this perception in thinking about mental health is severely limiting — it narrows the scope of policies by putting some solutions and orientations out of the public's purview. This strongly suggests the need for a simplifying model that concretizes and clarifies the concept of mental health as a positive state that can be promoted by policies shaping the environments of young children.[13] FrameWorks is currently conducting research to develop and test such a model in the U.S. Based on similarities between Americans and Albertans in regard to this assumption, the emergent simplifying model, after adaptations based on other cultural differences and additional testing in Alberta, should have ready application in communicating the science of child mental health in Alberta.

2. Personal responsibility crowds out government and social responsibility. The assumption of personal responsibility has a narrowing effect — it boils complex interactions between individuals, contextual determinants, systems and physiologies down to either the presence or absence of individual motivation and internal fortitude. Furthermore, the fact that emotions lie in the domain of individual responsibility, choice and control means that treatment is essentially the responsibility of the affected individual. This conclusion makes many of the treatment models that scientists want to communicate, such as those that take a broad family or community approach, hard for Albertans to understand and support.

3. The definition of mental health as emotions narrows the definition of effective treatments. Assumptions of the cause (emotions) and the location (embedded deep in individuals) of mental health restrict the types of programs and policies that will be viewed as effective and relevant. The cultural model of mental health also makes individuals resistant to seeing the appropriateness of *any* type of medication for dealing with issues they define as within the realm of mental health. Appreciating this resistance requires an understanding of the fact that individuals assume that mental health problems are emotional, *not physical or physiological*. In this way, good or poor mental health is the result of a person's choices, responsibilities and outlooks. These assumptions structure an understanding of treatment in which any sort of drug or medication masks the issue and lets the affected individual "off the hook" from having to take responsibility for dealing with their emotions. In short, because of assumptions regarding responsibility, medication for what are seen as mental *health* issues is seen to perpetuate and endorse irresponsible behaviors. Any messages about medication combined with mental *health* will face considerable resistance from implicit understandings that Albertans bring to understanding mental health.

4. Implicit assumptions of emotional-basis at odds with brain-based understanding of mental health. Furthermore, assumptions that mental health is emotion-based present a challenge to communicating about the brain-based, physiological aspects of mental *health*. From the perspective that mental health is defined as positive emotions and the control of negative emotions, it is hard to think about mental health being based in the brain. Put another way, since mental health is embodied emotions and located in and controlled by individuals, thinking about this concept being in the brain is decidedly difficult.

5. Drugs are perceived as the only treatment for mental illness. Because of the assumptions that mental *illness* is caused by chemical imbalances in the brain (not emotions under an individual's control), informants were quick to explain that the *only* way to treat these problems is by rebalancing chemicals by adding other chemicals via medication. For this reason, informants explained that in cases of "legitimate" mental illness, drugs are not only acceptable, they are the only answer. Put another way, *the different assumption regarding the root cause of mental illness (chemicals) compared with mental health (emotions) corresponds to different ideas of what comprise appropriate and effective treatments.* The solutions Albertans can think about are therefore discrete, narrow and compartmentalized. Solutions that are perceived to apply to one domain do not apply to the other domain. In essence, discrete perceptions of causation bound and restrict the ability to think about and communicate solutions.

6. When genes are perceived as set in stone, this creates a deterministic perspective on solutions. The assumptions that mental illness is caused by chemical imbalances and that these imbalances are the product of genes is heavily fatalistic and will likely inhibit the public's ability to think about solutions to what are perceived as mental illness issues. If mental illness lives in the world of genes, which are perceived to be impermeable, the point of engaging in the issue becomes irrelevant. Solutions to problems that function at the genetic level are "hard to think" because of the powerful assumption that "genes are set in stone." When genes and their corresponding outcomes become impermeable, there is little chance of affecting these outcomes through treatment and policy solutions.

7. Assumptions about young children's limited capacity for emotions sets up the conclusion that they are incapable of mental health. When individuals employ the assumption that children don't understand, realize or remember emotions, communicating the importance and significance of child mental health becomes decidedly difficult. If a child can't experience emotions, and emotions are the root of mental health, then, according to informant assumptions, children simply do not experience mental health. Once people have employed available models to reach this conclusion, they are cognitively disadvantaged to hearing messages about the existence and importance of child mental health. It thus becomes challenging to communicate the message that such states are not only possible, but have significant impacts and warrant action. This is even more problematic in discussions of *early* child mental health, where the perceived capacity to have and experience emotions is seen as even less developed. In addition, if young children have limited ability to remember, their experiences have limited long-term impacts. This assumption, therefore, obscures messages about long-term impacts, or windows of developmental opportunity.

8. If children are just little adults, then treatment should be the same. When individuals assume that, because children are little adults, child mental health and adult mental health are fundamentally the same, they also draw conclusions that the ways of addressing mental health must also be the same. This line of thinking limits perceptions of appropriate tests and treatments to those that encourage children to take responsibility for dealing with negative emotions.

9. Ageing-up turns focus away from young children. The "ageing-up" assumption demonstrates

that communicators must recognize the fact that if messages do not specifically reference the ages about which they are talking, the public is likely to fill in this information by applying their assumptions about the age at which they believe children can experience mental health problems. This in turn will result in difficulties on the public's behalf in realizing the importance of policies addressing very young children.

B. Alberta Distinctiveness

While research suggested that Americans and Albertans share many of the same implicit understandings of child mental health, there were also a set of key differences between how these groups approached and made sense of this issue. These differences are discussed below.

1. An assumed role for government

While Albertans, like Americans, assumed that individuals are largely responsible for maintaining positive mental health, the cultural model of individual responsibility was not dominant to the same degree that it was in the American research. For Americans, personal responsibility crowded out all other considerations — individuals were responsible for controlling their emotions, regulating their mental health and for seeking help. Even when they sought outside help, they were responsible for its success or failure. In short, the mentalist model dominated American thinking and precluded other ways of looking at the issue of mental health and responsibility.

While Albertans also approached mental health problems from the perspective of controlling emotions and seeking services in the cases where such personal control was not possible, they also assumed a pivotal role for government. Albertans spoke frequently and at length about the government's responsibility in *providing* and making services *available* to the public.

Interviewer: Let's say that you know someone who has mental health issues and they're saying, "Where can I go? Who can help me?" What would be your answer?

Informant: I know for a fact in Calgary there's the Calgary Mental Health Association. There's the Calgary Association of Self Help. There's the United Way of Calgary. And in the church there's the Catholic Family Service. They all get government sponsorship. So they could go to any of those, and then I'm sure, as well they could, basically walk in the front door of a hospital and ask the question same you did. My guess is, those people have a list of organizations and government agencies to point them to.

Rural Man, 56

My approach would be that you would need to intervene on all levels, depending on the age of the kid. What their family needs is an assessment. Go to the parents, interview them, and the kids … we'd interview the school, whatever facets involved in that kid's life, and assess where's the strong points, where's the weak points?

Urban Woman, 39

2. It's not all about parents

In the American research, discussions of child mental health and illness were dominated by a strong sense of parental responsibility. When a child experienced mental health problems, the parents or the home were the most apparent causes. FrameWorks refers to this narrow assumption as the *family bubble* cultural model.[14]

Albertan interviews revealed a different way of thinking about the role of parents and the home. Albertans hold a much wider, ecological understanding of "environment," as composed of resources, communities and services — contexts into which families were embedded.

It's [who is involved in addressing a mental health issue] not the parents, because there's different things … If you have a community, that doesn't demand that for your kids — and if you have a government that doesn't help with that then …

Rural Woman, 45

We can't blame everything on every parent, because some parents do the best they can and they end up in these situations with children that are unresponsive and isolated. You just have to find a way to help the child. But, on the other side, being in a good community setting and getting involved in activities, new activities that they've never done before … activities involving different groups of people.

Urban Man, 41

3. Mental health is about functioning

For some of the American informants who recognized that children have mental health, the ability to *function* was a key element in identifying good versus poor mental health. When asked how they would tell whether a child had good or poor mental health, these informants explained that those who have poor mental health lack the abilities that comprise age-appropriate functioning, whereas those with good mental health are able to engage in and complete tasks that are typical for children at their age. In this way, informants held a developmentally appropriate understanding of child mental health — that child mental health is a different thing for children at different developmental stages because it is based upon functioning, which is also developmentally constructed.

Analysis of the Alberta interviews suggests that this relationship between functioning and mental health is not only present in how Albertans reason about child mental health, but that it is a *dominant* feature of how they think about this issue. In other words, this pattern of reasoning was employed by *all* informants in *multiple* parts of conversations.

A person with good mental health is able to function in a normal way. That means being able to have a job or run a household and to be able to get those basic things for ourselves, have positive relationships and that we can give something back and that we also get something to have some level of satisfaction with our lives.

Urban Man, 27

I think a person with good mental health, not only is able to carry out all the things that you need to be able to do to live in a society; hold a job, have friendships, relationships, financial, somewhat smart with your money, all those things but that a person with really good mental health can *function*. I think a person with poor mental health dreams about a future, but doesn't really have any way of making it happen.

Rural Woman, 55

I think their level of functioning is pretty key. Schizophrenia for example … that is a real scary thing in life that they generally don't function as well as others and ones that don't get any treatment completely don't function.

Urban Man, 41

Well, you need good mental health to be able to really be a well-rounded individual in our society, and function. If your mental health is poor, whether it be the fact that you can't communicate with people, you can't interact with people, you have horror going to the mall, and walking down the mall 'cause there's so many people …

Rural Man, 67

Implications of cross-cultural differences

1. Implicit role of government is promising. The assumption that government should and must play a role in addressing mental health issues presents a golden communications opportunity. Activating this model is highly promising in conveying the importance of public programs and policies in addressing mental health issues. Simultaneously, advocates and experts of child mental health must remain aware of the existence of the personal responsibility model and must actively avoid cuing this assumption.

2. Wider conception of environments is a communications opportunity. The lack of a narrow focus on parents in shaping mental health is one fewer obstacle faced in communicating the science of child mental health to Albertans. In addition, the presence of a resource-based conception of environments is a pattern of thinking that communications should take advantage of and make efforts to cue in messages to the public about the science of child mental health and its policy implications.

3. Connection between functioning and mental health is a key translational tool. The ability to see the functioning of a child as a sign of mental health is consonant with the expert understanding of child mental health. As such, this part of the Albertan cultural model of child mental health should be explicitly and deliberately activated in communication efforts. FrameWorks' research suggests that including the concept of *functioning* in descriptions of child mental health and the outcomes it affects is an effective means of shifting away from more unproductive patterns of thinking and engaging the public in a concept that is directly in line with the science on this issue.

Comparison #2: Mapping the Gaps

FrameWorks has worked with scientists on the National Scientific Council on the Developing Child and with a group of leading experts in a Society for Research in Child Development Summit on Child Mental Health to synthesize a set of principles and core themes of the science of child mental health that experts believe are critical to changing the public discourse and policy agenda around this issue. The components of the science story as captured by FrameWorks in these iterative sessions is provided in Appendix B. Our task in this part of the paper is to evaluate the extent to which the substance of this story is consonant with the existing understanding of child mental health expressed by Albertans in our interviews. That is, we want to "map the gaps" between the scientific understanding of child mental health and those employed by Albertan public.

Mapping the Gaps

While we focus below on the *gaps* between expert and Albertan understandings in order to identify areas that would benefit from simplifying models, research suggested that there are significant areas of *overlap* between the way these groups understand child mental health. These overlaps have strategic implications and represent communications tools—pointing to specific areas and understandings to emphasize in messaging. However, future framing research must verify the positive effects of these common understandings on communicating child mental health policies. Below is a list of these overlaps:

1. The concept of functioning. Both scientists and Albertans appreciate the importance of *functioning* as a way of conceptualizing child mental health. This is, therefore, a particularly strong and readily communicable part of the science story of child mental health and an aspect of the science message that should be built upon.

2. Contexts of importance. Both scientists and Albertans have consonant views of environments — perceiving environments as the contexts in which children have experiences, access to resources and opportunities to develop skills and abilities by engaging in programs.

Despite these important overlaps and the communication opportunities they afford, there were a number of gaps between the understandings of experts and Albertans on the issue of child mental health. These gaps impair a productive understanding and use of the science around an issue. An integral part of FrameWorks' Strategic Frame Analysis™ is to first generate this map and then design simplifying models that bridge these gaps by cultivating clarifying metaphors that concretize key scientific concepts. Designing simplifying models relies on knowing the *locations* and *characteristics* of expert-lay gaps in understanding — it requires a detailed, in-depth understanding of the map. Below is a list and discussion of the gaps that emerged from holding the expert core story of child mental health up to the cultural models that Albertans employ to reason about this issue.

1. Causes. There were conspicuous gaps between the ways that scientists and Albertans conceptualized mental health and mental illness. Experts explained that a wide variety of factors and considerations function as possible causes of children's mental health problems and that a wide variety of treatments hold promise. Experts focused on the interaction between genes and environments as the determinants of both mental health and illness. The Albertan public, on the other hand, holds much narrower conceptions of both concepts. Albertans assume that mental health is a purely emotional concept, while mental illness is determined exclusively by genes and chemicals. Communicators must provide new causal explanations of mental health and illness that are in line with the expert understanding and allow the public to see a wider set of solutions — focusing not just on treatment but on promotion and prevention — as viable to these issues. The key here will be clarifying the role that environments, genes and biology play in both child mental health and illness.

2. Connections. In addition to seeing different concepts, the degree to which both scientists and Albertans implicitly connect these concepts and distinguish between them is an important gap. Expert interviews revealed little distinction between mental health and illness and demonstrated a tendency to blur the line between these concepts. In short, most of the discussion in the scientific community on mental health is in reality a discussion of mental illness. This conceptual blurring stands in stark contrast to Albertans' assumption of these concepts as absolutely distinct, with different understandings guiding thinking on one concept than those applied to make sense of the other.

3. Appropriate treatment. Experts and the public have dramatically different sets of assumptions about what causes children's mental health or mental illness, which means that they see dramatically different sets of treatments as appropriate. The gap between expert and lay public assumptions of causation leave communications caught in the middle; the treatments about which scientists and advocates want to communicate are highly dissonant with the treatments that the public is cognitively equipped to see as effective and the policy implications of implementing such treatments. Whereas the expert understanding of causation opens the door to a wide range of potential factors that shape mental health and illness outcomes and a range of effective means of addressing these causes — including strong focus on *promotion* — the public's perception is substantially more limited.

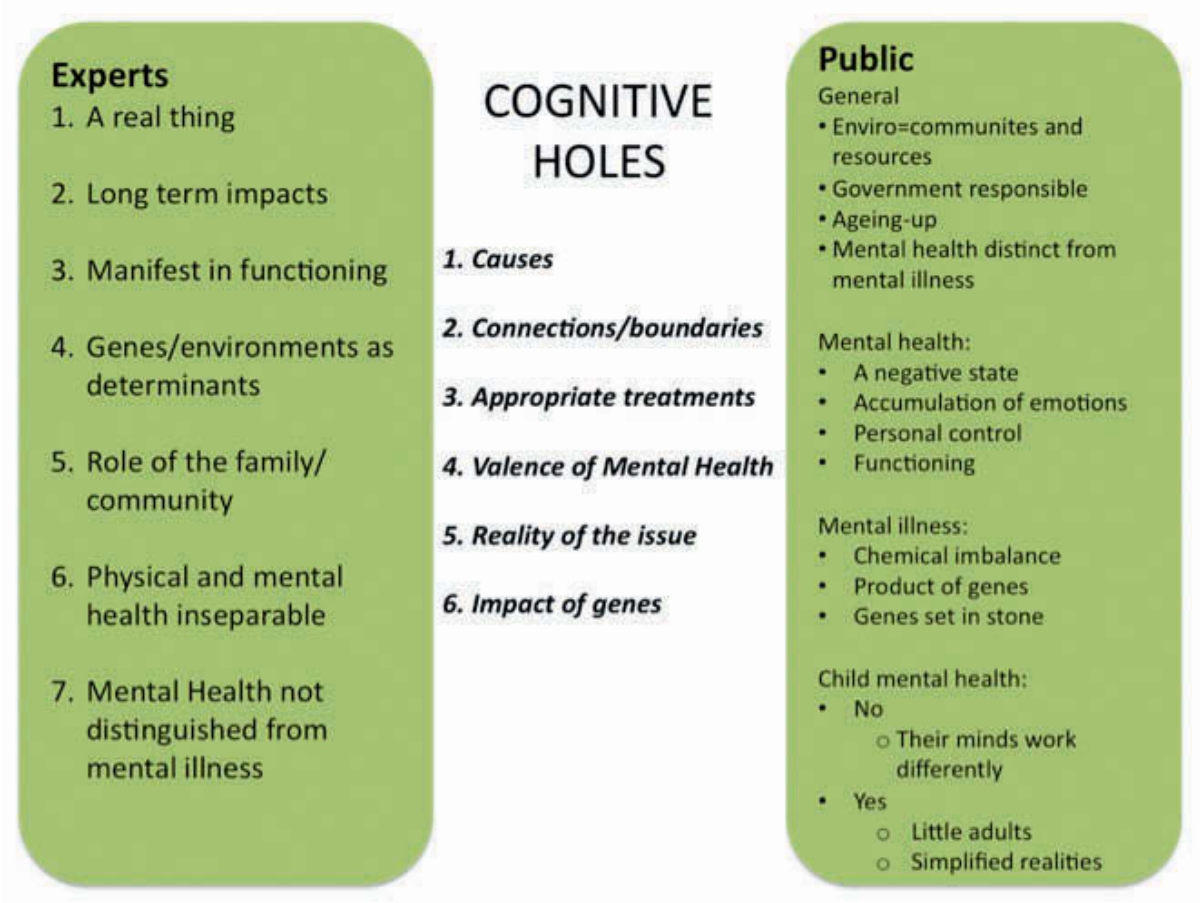
4. Valence of mental health. Another glaring gap is that the Albertans assume that conversations about

mental *health* are actually about mental health *problems.* The scientific discourse is moving towards more attention on mental health as a positive state to be cultivated and promoted. This movement in the scientific community is, unfortunately, not mirrored by a parallel direction in public understanding on this issue. This gap presents a considerable challenge in communicating the many promotion-based policies currently suggested by the science of child mental health.

5. The reality of child mental health. One of the most glaring gaps between experts and the public is that experts insist that child mental health is a real phenomenon that requires treatment. Our interviews with members of the lay public, on the other hand, demonstrate that the public does not share this *unequivocal* conviction about the reality and existence of this phenomenon. Many informants employed cultural models to understand child mental health that made it difficult for them to see and appreciate the fact that children could experience good or poor mental health. Crafting communications that shift Albertans off the dominant model in which the minds of children are fundamentally different from those of adults is paramount in making the science of child mental health cognitively available to the public.

6. The impact of genes. Interviews revealed a dramatic gap between the expert understanding of genes and their functioning in determining outcomes like mental health and that of the average Albertan citizen. Cultural models interviews revealed a heavily fatalistic understanding of genes — in which genes and the outcomes they determine are firmly "set in stone." In contrast, experts explained that environments have a fundamental impact on how and when genetic material is expressed.[15]

The figure below represents the map of expert explanations, Albertan cultural models and the gaps that exist between these two groups in understanding mental health and child mental health more specifically.



CONCLUSIONS

This report examines the implications of differences and similarities in how American and Albertan informants and scientists think about child mental health. These comparisons were conducted to bring the cultural beliefs that guide Albertan thinking on this issue into the sharpest possible relief in order to identify communications challenges and opportunities. These comparisons were examined through the analysis of interview data with members of all three of these groups.

Through the comparison of American and Albertan cultural models, the report offers areas where these understandings are similar. Similarities suggests that many of the framing recommendations currently emerging from FrameWorks' ongoing research on child mental health in the U.S. are promising in framing messages for the Albertan public.

In addition to similarities, research revealed a number of areas where Albertans understand the issue of

child mental health from a perspective that differs markedly from that employed by Americans. Many of these differences represent areas of promise for policy or systems communications and suggest that Albertans are well-positioned to interpret and apply certain aspects of the science of child mental health in thinking about the role of public policy in improving child well-being.

While not discussed in the current report, other FrameWorks research in Alberta, focusing on child development more generally, revealed a dominant cultural model in which Albertans implicitly assume that early experiences have long-term impacts and shape later outcomes.[16] While not implicitly applied in thinking about child mental health, advocates and experts might be able to activate this assumption in messages about mental health so that Albertans can bring this understanding to bear on how they think about the importance of early experiences in shaping later mental health outcomes.

The report located specific gaps in understanding between the ways experts and average Albertans understand and talk about child mental health. These public-expert gaps must be addressed in communicating and translating the science of child mental health. Furthermore, the research identifies the significant areas of overlap between how scientists and Albertans understand issues of child mental health as promising communication areas to emphasize and build upon in translating and communicating the science and its policy implications on this issue.

Ultimately, the report demonstrates the pressing need for scientists and reformers to work on providing Albertans with alternative ways of thinking about what are currently seen as neatly distinct and simple concepts of mental health and illness. The report also shows the necessity of science translations and public communications in Alberta to make a strong case for the *existence* of states of mental health in *children*. It is FrameWorks' firm position that, without new ways to think about mental health in children, Albertans will predictably interpret communications on child mental health through the perspective that it is just a matter of emotions under individual control. The result of this is a difficulty in applying the relevant science to thinking about, realizing and supporting public policies to improve the environments families and children experience, the preventive programs which might improve their well-being, and their access to age-appropriate and ongoing treatment. New communications strategies are required if we are to succeed in shifting public thinking away from patterns of thinking in which the minds of young children are seen to be incapable of experiencing the mental states required to have either good or bad mental health. Similarly, the understanding that children have limited memories translates into the general position that early experiences in children have little lasting impact or significance on both their mental health and overall development. Communications must also shift the perceptions of causation that people hold for both mental health and mental illness and, in so doing, open up new ways of thinking about appropriate treatment, promotion and prevention along the continuum of mental health to mental illness. Subsequent phases of research will explore precisely how scientists can most successfully address the challenges presented here.

APPENDIX A: THEORETICAL FOUNDATIONS

The following are well-accepted characteristics of cognition and features of cultural models that figure prominently into the results presented in this report and in FrameWorks' research more generally.

1. Top-down nature of cognition

Individuals rely on a relatively small set of broad, *general* cultural models to organize and make sense of information about an incredibly wide range of *specific* issues and information. Put another way, members of a cultural group share a set of common general models that form the lens through which they think and make sense of information pertaining to many different issues. This feature of cognition explains why FrameWorks' research has revealed many of the same cultural models being used to think about seemingly unconnected and unrelated issues — from education to health to child development. For example, FrameWorks' research has found that people use the *mentalist* model to think about child development and food and fitness — seemingly unrelated issue areas. For this reason, we say that cognition is a "top-down" phenomenon. *Specific* information gets fitted into *general* categories that people share and carry around with them in their heads.

2. Cultural models come in many flavors but the basic ingredients are the same

At FrameWorks, we often get asked about the extent to which the cultural models that we identify in our research and that we use as the basis of our general approach to social messaging apply to ALL cultures. That is, people want to know how inclusive our cultural models are and to what extent we see/look for/find differences across race, class or other cultural categories. Because our aim is to create messaging for mass media communications, we seek out messages that resonate with the public more generally and, as such, seek to identify cultural models that are most broadly shared across society. We ensure the models are sufficiently broad by recruiting diverse groups of informants in our research who help us to confirm that the models we identify operate broadly across a wide range of groups. Recruiting diverse samples in our cultural models interviews often confuses people who then think we are interested in uncovering the nuanced ways in which the models take shape and get communicated across those groups, or that we are interested in identifying different models that different groups use. To the contrary, our aim is to locate the models at the broadest possible levels (i.e., those most commonly shared across *all* cultural groups) and to develop reframes and simplifying models that advance those models that catalyze systems-level thinking. The latter does not negate the fact that members of different cultural groups may respond more or less enthusiastically to the reframes, and this is one of the reasons why we subject the reframes that we recommend to our clients to rigorous experimental testing using randomized controls that more fully evaluate their mass appeal.

3. Dominant and recessive models

Some of the models that individuals use to understand the world around us are what we call "dominant"

while others are more "recessive," or latent, in shaping how we process information. Dominant models are those that are very "easy to think." They are activated and used with a high degree of immediacy and are persistent or "sticky" in their power to shape thinking and understanding — once a dominant model has been activated, it is difficult to shift to or employ another model to think about the issue. Because these models are used so readily to understand information, and because of their cognitive stickiness, they actually become easier to "think" each time they are activated — similar to how we choose well-worn and familiar paths when walking through fields, and in so doing these paths become even more well-worn and familiar. There is therefore the tendency for dominant models to become increasingly dominant unless information is reframed to cue other cognitively available models (or, to continue the analogy here, other walking paths). Recessive models, on the other hand, are not characterized by the same immediacy or persistence. They lie further below the surface, and while they *can* be employed in making sense of a concept or processing information about an issue — they *are* present — their application requires specific cues or primes.

Mapping recessive models is an important part of the FrameWorks approach to communication science and a key step in reframing an issue. It is often these recessive patterns of thinking that hold the most promise in shifting thinking away from the existing dominant models that often inhibit a broader understanding of the role of policy and the *social* aspect of issues and problems. Because of the promise of these recessive models in shifting perception and patterns of thinking, we discuss them in this report and will bring these findings into the subsequent phases of FrameWorks' iterative methodology. During focus group research in particular, we explore in greater detail *how* these recessive models can most effectively be cued or "primed," as well as how these recessive models *interact* with and are *negotiated* vis-à-vis emergent dominant models.

4. The "nestedness" of cultural models

Within the broad foundational models that people use in "thinking" about a wide variety of issues lay models that, while still general, broad and shared, are *relatively* more issue-specific. We refer to these more issue-specific models as "nested." For example, in our past research on executive function, when informants thought about basic skills, they employed a model for understanding where these skills come from, but research revealed that this more specific model was nested into the more general *mentalist* cultural model that informants implicitly applied in thinking this issue. Nested models often compete in guiding or shaping the way we think about issues. Information may have very different effects if it is "thought" through one or another nested model. Therefore, knowing about which models are nested into which broader models helps us in reframing an issue.

APPENDIX B: THE SCIENCE STORY OF CHILD MENTAL HEALTH AND THE CULTURAL MODELS ALBERTANS USE TO THINK ABOUT THIS ISSUE

Core Themes in the Science Story

1. Child Mental Illness *is* a Real Thing

In our interviews, experts concentrated on the point that child mental illness is a *real* phenomenon — that children really can experience mental illness and that there are variations in the degree to which they experience mental health. To make this point, experts relied on three lines of reasoning. When asked to defend the position that children can really experience poor mental health, experts explained that there are distinct patterns in the symptoms of children experiencing mental illness. Experts explained that this suggests that children with these symptoms are actually experiencing *something* — that when scientists talk about child mental health, they are talking about a discrete and definable phenomenon. Experts explained that symptoms are manifest as patterned deviations from "normal" abilities and behavior. Secondly, experts explained that because these common patterns of symptoms across individuals respond in similar and predictable ways to treatment, symptoms are in fact characteristic of an observable and treatable phenomenon, similar to mental illness in adults. Finally, experts responded to probes about whether or not children really could experience mental illness and health by citing the *outcomes* of mental illness in children. Experts discussed epidemiological research that has shown the "costs to society" derived from child mental illness. In other words, if something causes real outcomes, it in turn must also be real. In summary, the logic used by experts to explain why mental illness does in fact exist in children was that there are patterns of symptoms, these symptoms respond to treatment in similar ways, and that the presence of this phenomenon is apparent in its clear effects on both individuals and society more broadly.

2. Life-Long Effects

Scientists emphasized that what happens in childhood affects an individual for their *whole life*. In short, children who experience persistent symptoms of mental illness are impacted in a wide range of areas, from school to social abilities, to proficiency in dealing with issues and challenges of everyday life. Put another way, child mental illness affects the success of individuals for the rest of their lives.

3. Functioning

Experts employed a concept of *functioning* to explain what child mental illness is and how it manifests. At points during all interviews, experts explained that mental illness could be conceptualized as an *inability for children to function* in developmental culturally standard patterns. Experts used this concept both explicitly, in explaining what child mental health is, and more implicitly in discussing diagnosis and treatment. When used explicitly, the concept of functioning was employed to explain child mental health to audiences who would be reluctant to realize and/or understand the concept and

would be resistant to its existence at all. According to experts' hypotheses, even if people are resistant to recognizing certain diagnoses in kids (depression for example), they would be less resistant to thinking about limits in functioning. Child mental illness, therefore, can be conceptualized as something that affects the way kids function and can or can't do "normal" things. "Treatments" for child mental illness can be similarly conceptualized as ways of helping kids function — rather than as treating an illness.

4. Genes and Environment

In our interviews, experts discussed the causes of mental illness in children by focusing on the interaction between genes and an individual's experiences in an environmental context. Scientists employed this interaction to formulate four different combinations of influences that ranged from least to most predictive of child mental illness. On the least conducive side was the scenario where a child has a predisposition to be resistant to threats to mental health *and* is situated in an environment that supports positive mental health. On the other extreme was the scenario where the child has a predisposition to mental illness and experiences a stressful and unsupportive environment. The other two combinations of these factors lay between these extremes (genetic resiliency and unsupportive environment, and genetic predisposition and supportive environment).

5. The "Family" in Child Mental Health

The experts we spoke to were resolute and unequivocal in making the connection between the mental health of the family, particularly of the child's mother, and that of the child. Experts explained that, if parents' functioning is limited by symptoms of mental illness, they cannot respond to the child's needs. Consequently, when physical and socio-emotional needs are not met, dysfunctional responses in the child, impaired development of functional responses, and an increased likelihood that the child will develop mental illness are likely to precipitate.

6. Child *Mental* and *Physical* Health are Inseparable

The idea that mental and physical health are closely related and intertwined was a dominant theme in our expert interviews. For the experts, mental illness was rooted in the body in the same way as physical health. Physical illness was explained to occur when trauma or disease acts upon some area of the body, which is then manifest as physical symptoms. Mental illness was explained using the same logic and causal sequence — occurring as the result of some physical change in the brain. Because of its roots in the body, mental illness can be understood from the same perspective as physical illness — located in the body and the result of physical changes to that body in much the same way as when someone gets the flu or breaks an arm.

7. Child Mental Health is "Fuzzy"

A dominant feature, both explicitly recognized and implicit in shaping conversations in expert interviews, was a lack of clarity on the science of some key issues in the field of child mental health.

Experts explained that diagnosing the symptoms of child mental health remains contentious because adult models cannot simply be "aged down" to fit the symptoms and experiences of children. Because children are so developmentally different from the adults on whom diagnostic models are based, diagnosing child mental illness is an area where the science remains inconclusive. Further complicating this issue is the fact that there is no one "child" model of mental illness or health because of the vast differences between children at different developmental "windows." "The child" is a moving target. Experts also explained that much of the scientific understanding of adult mental illness is based on self-report data, which for obvious reasons is less readily available, detailed and reliable for young children. Another reason for the imprecise nature of the scientific understanding of diagnoses in child mental health is due to the lack of significant case history when dealing with young children. Quite simply, young children have not been alive long enough to have the extended, detailed and heavily patterned case histories of symptom presentation as do their adult counterparts. Such case histories are influential in diagnosing mental illness in adults. Finally, experts explained that the relative scientific fuzziness of the concept of child mental health and illness is due to the newness of this area of scientific research and clinical practices. In other words, the discipline is relatively under-conceptualized and poorly understood because scientists have only recently begun to focus on mental illness in young children.

8. No Concept of Child Mental *Health*

Surprisingly absent from our interviews with experts was a working concept of child mental *health*. For each scientist we spoke with, child mental health was largely defined as *the absence of mental illness*. Implicit in each of our interviews (our questions were broad at the outset to see how experts oriented towards the concept we introduced as "child mental health"), experts focused on child mental *illness*, with little to no mention of what it means for children to have mental *health*. The implicit assumption made by our informants was, therefore, that child mental health is the absence of the aggregate of child mental illnesses.

ENDNOTES

[1] For more information on Strategic Frame Analysis™, see http://www.frameworksinstitute.org/sfa.html.

[2] Kendall-Taylor, N. (2009). *Conflicting models of mind in mind: Mapping the gaps between the expert and the public understandings of child mental health as part of Strategic Frame Analysis™*, Washington, D.C.: FrameWorks Institute.

[3] Kendall-Taylor, N. and Mikulak, A. (2009). *Child mental health: A review of the scientific discourse.* Washington, D.C.: FrameWorks Institute.

[4] Quinn, N. (2005). *Finding culture in talk: A collection of methods* (1st ed.). New York: Palgrave Macmillan.

[5] Kendall-Taylor, N. (2009). *Conflicting models of mind in mind: Mapping the gaps between the expert and the public understandings of child mental health as part of Strategic Frame Analysis™*, Washington, D.C.: FrameWorks Institute.

[6] For more on analytical methodology, see: Quinn, N. (2005). *Finding culture in talk: A collection of methods* (1st ed.). New York: Palgrave Macmillan. And Strauss, C. (2010). *A social discourse theory of public opinion: How Americans talk about immigration and social welfare*. Manuscript submitted for publication.

[7] The results of the this research are published in Kendall-Taylor, N. and Mikulak, A. (2009). *Child mental health: A review of the scientific discourse*. Washington, D.C.: FrameWorks Institute. Available at http://www.frameworksinstitute.org/cmh.html

[8] The interviews themselves consisted of a series of probing questions meant to capture the scientific understanding of child mental health. In doing so, we guided the expert informants through a series of prompts and hypothetical scenarios designed to challenge them to explain their research, break down complicated relationships, and simplify concepts, methods and findings from the field. In this way, the interviews were semi-structured collaborative discussions with frequent requests for clarification, elaboration and explanation. Analysis of expert interviews employed a basic grounded theory approach. In this approach, common themes are pulled from each interview and categorized; negative cases are incorporated into the overall findings within each category; and the result is a refined set of themes (categorized appropriately) that synthesizes the substance of the interview data. Consistent with this method, the themes we identified were then modified and appropriately categorized during each phase of the analysis to account for disconfirming or negating research presented by other scientists. In our use of this approach, the themes presented below establish, explain and clarify foundational components of the science story of child mental health. As such, what resulted from this research and analysis process is a refined set of themes that, when viewed together, tell the story of the science of child mental health. This story establishes a baseline understanding to which all subsequent translations for public audiences are accountable.

[9] Participant observation is a method of data gathering derived from anthropology in which the researcher looks for patterns and common themes that run through un-moderated discussions and presentations. The result of the participant observation conducted at these meetings is a set of observations and notes about common, though frequently implicit, undercurrents and themes that run through discussions between scientists, in the papers they discuss, and in their questions and responses to each others' research.

[10] This assumption of personal control and responsibility is rooted in a more general assumption about the way the world works that FrameWorks refers to as the mentalist cultural model. According to the mentalist cultural model, outcomes are assumed to be the exclusive product of either the presence or absence of an individual's internal motivation and drive.

[11] It is critical to keep in mind that the existence of two seemingly contradictory models that informants applied in understanding child mental health is by no means exceptional — conflicting and contradictory assumptions applied in understanding the same issue are relatively normal in the "swamps" of cultural models. These apparent contradictions demonstrate a basic feature of how we make sense of information; we apply existing categories and mental structures to process and make sense of incoming information — what is referred to as the top-down nature of cognition (see appendix for more detailed discussion of features of cultural models and cognition). Because sets of assumptions and understandings come prepackaged and are not generated anew to best-fit new information, two different mental models may become active in thinking about and making sense of the same issue. These assumptions, because they are used to think about many other topics and issues, are not necessarily consonant and appear as illogical self-contradictions during data analysis. In short, it was not surprising to find contradictory models in the way that informants understood child mental health. Rather, it provides evidence to the theory of cultural models. While theoretically consonant, the application of contradictory models in how Americans understand child mental health does create complications for reframing the issue. In this case, neither model is in line with the science of child mental health, and therefore communications must seek to shift away from both of these dominant patterns of understanding.

[12] This line of probing drew from work by Roy D'Andrade on cultural theories of mind: D'Andrade, R. (1987). A Folk Model of the Mind. In Holland, D. & Quinn, N. (Eds.), *Cultural models in language and thought* (pp. 112–150). Cambridge: Cambridge University Press.

[13] A simplifying model can be thought of as bridge between expert and public understandings — a concrete metaphor that presents an expert or technical concept in a way that the public can readily deploy to make sense of new information. More specifically, FrameWorks defines a simplifying model as a research-driven, empirically tested metaphor that captures and distills an "expert" concept by using an explanatory framework that fits in with the public's existing patterns of assumptions and understandings. A simplifying model reduces a complex problem to a simple and familiar analogy or metaphor and contributes to understanding by helping people organize information into a clear picture in their heads, including facts and ideas previously learned but not organized in a coherent way.

[14] See the following research report for more information on and description of the family bubble: Chart, H. and Kendall-Taylor, N. *Reform what?: Individualist thinking in education: American cultural models on schooling*. Washington, D.C.: FrameWorks Institute 2008.

[15] Using the simplifying model that comes out of FrameWorks' ongoing research on gene-environment interaction will be effective in creating a different understanding of how genes shape and are involved in child mental health and illness outcomes.

[16] Kendall-Taylor, N. (2010). *Experiences get carried forward: How Albertans think about early child development*. Washington, D.C.: FrameWorks Institute.