



SASKATCHEWAN POPULATION HEALTH AND EVALUATION RESEARCH UNIT



# A Summary of "Getting Inside the Black Box: Using Theory to Plan and Evaluate *KidsFirst* in Saskatchewan, Canada"



Vince Terstappen, Darren Nickel, Nazeem Muhajarine, Kathryn Green and the Evaluation Research Team, Saskatchewan Population Health and Evaluation Research Unit

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**USING THEORY TO ASSIST IN THE PLANNING  
AND EVALUATION OF *KIDSFIRST*, SASKATCHEWAN**

**A Summary of  
Getting inside the Black Box: Using theory to inform the planning  
and evaluation of *KidsFirst* in Saskatchewan, Canada**

Submitted to

Early Childhood Development Unit  
Early Learning and Child Care Branch, Ministry of Education

By

Vince Terstappen, Nazeem Muhajarine, Darren Nickel, and Kathryn Green  
on behalf of the *KidsFirst* Research Team\*

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\****KidsFirst* Research Team:** Nazeem Muhajarine, Angela Bowen, Jody Glacken, Kathryn Green, Bonnie Jeffery, Fleur Macqueen Smith, Tom McIntosh, Darren Nickel, David Rosenbluth, Gail Russell, Nazmi Sari and Gary Shepherd

## Acknowledgements

This report is one of three versions of a document focusing on the theoretical underpinnings of the Saskatchewan's intervention program in early childhood development, *KidsFirst*. This is the 11-page summary, based on the full report; a one-page brief summary has also been produced. The three versions are tailored to reach different audiences: program managers, service providers, home visitors, program planners, policy makers, researchers and academics. While the four authors listed had a primary role in developing this paper, the final document is a much improved product of many people. They include staff of Early Childhood Development Unit, namely Gail Russell, Gary Shepherd, Wendy Moellenbeck, Robert Gates, and Murray Skulmoski. We also thank the Program Managers of the *KidsFirst* program sites for their invaluable comments and for their passion for wanting to make a difference in *KidsFirst* families' lives. We also extend our thanks to Penny McKinlay for her deft touch preparing the summary versions, and to Fleur Macqueen Smith for copyediting and creating the covers. Finally, we acknowledge with thanks the financial contribution of the Early Childhood Development Unit, Early Learning and Child Care Branch, Saskatchewan Ministry of Education for making this report possible, and the Canadian Population Health Initiative, (CPHI), part of the Canadian Institute for Health Information (CIHI) for their funding for the larger evaluation project of which this report is a part.

# Using theory to help plan and evaluate KidsFirst: a brief summary

Theories explain reality by showing how and why activities bring about change. *KidsFirst* evaluation research team has identified three theories that can help improve the *KidsFirst* program through better delivery, better explanations and better research.

The first theory we have considered is **Self-Efficacy Theory**. This theory addresses behaviour change at the individual level—in relation to *KidsFirst*, this is the parent or caregiver level. Before a person carries out a task, she must believe that she can do it successfully. Individuals who feel confident that they can accomplish a task set more goals. They are more motivated to achieve them and are not stopped by obstacles. Individuals who lack confidence in their abilities are more likely to be stressed or depressed, and less likely to try and better themselves (e.g. by looking for a better-paying job). Self-efficacy is increased every time an individual successfully completes a task, or other people assure them that they can be successful, or they observe and learn from a role model.

## **Significance for KidsFirst:**

Many activities within *KidsFirst* relate to self-efficacy theory. Family assessments measure the self-efficacy of parents and children. Parents are encouraged to set goals and to develop action plans to meet goals. Home visitors show family members how to do things, provide verbal support and encouragement, and develop a good relationship with the family so that home visitors are seen as positive role models.

A second theory, **Attachment Theory**, addresses the formative and critical relationship between the primary caregiver (often the mother) and child. Infants and young children develop a strong attachment to specific individuals, such as their mother, and want to stay close to her. Children build attachment to their primary caregiver in many different ways such as showing 'signalling' (crying, calling, smiling) or approaching behaviour (following, clinging). They will develop additional bonds with other adults. Adults can strengthen the bond by responding quickly to the child, and initiating and maintaining contact. When children have a strong attachment, they feel comfortable in exploring and experimenting. As children grow older, they are more self confident and comfortable in variety of places. Just as children do, however, adults also desire some form of attachment, especially with their child.

**Significance for KidsFirst:** Home visitors are an important resource, and home visits a critical method to encourage parents to respond and interact with their children. The home visitors may, as necessary, provide a secure base so that the caregivers feel comfortable trying out new approaches and resources to bond with their children.

The third theory, **Human Ecology Theory**, takes a systems perspective and addresses the social settings of a child (e.g. family, school, community) and the relationships and connections between these settings as influential factors in a child's development. Home, school, and the peer group are the most important settings for a child. The relationships within and between these settings can improve development if there is mutual trust and affection, common goals, communication, and a gradual shift of power and autonomy to the developing child. Every



individual in a relationship is affected by the development of other members, so it is important to look at all the people who are involved, even people who are not in the home (e.g. parent's employers, home visitors). It is easier for children to make the transition to a new setting if they are accompanied by a person with whom they already have a good relationship in another setting (e.g. a mother accompanying her child to school). Child development is

improved if there are supportive links between the different settings (e.g. a nurse phones a child's home).

**Significance for KidsFirst:** An important goal of *KidsFirst* involves improving accessibility of families to existing and agencies in the local community. Human Ecology Theory provides a framework to understand how well families are engaged in the community, the relationships between families and institutions and agencies, and how effectively agencies serve the needs of the families. It is important to look at all the circumstances surrounding a child—from relationships within the home to community agencies, to neighbourhood community, schools and public policy. Home visitors and other service providers from community must evaluate the strength of the relationships within and between these settings, and of the links to the child and family, in order to ensure the best circumstances are in place for the child's health and development.—Vince Terstappen, Nazeem Muhajarine, Darren Nickel and Kathryn Green for the *KidsFirst* Research Team, 2009. The full report and an 11 page summary are available from fleur.macqueensmith@usask.ca or at [www.spheru.ca](http://www.spheru.ca).



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This is one of three versions of this report; the full report, as well as a brief, one page summary, are available from Fleur Macqueen Smith (fleur.macqueensmith@usask.ca) at the Saskatchewan Population Health and Evaluation Research Unit, or can be downloaded from the SPHERU website at [www.spheru.ca](http://www.spheru.ca).





## Introduction

The *KidsFirst* program is an early childhood intervention program launched in 2001. Its goal is “to support vulnerable families in developing the capacity to care for and nurture their children.” The program targets children living in low-income communities and has several components including casefinding, home visiting, mental health and addictions services, and early learning and childcare.<sup>1</sup>

Capacity building and community development are core values of the *KidsFirst* program. *KidsFirst* is based on the belief that recognizing and building on a family’s strengths and assets is more likely to lead to sustained positive outcomes than is a focus on the family’s deficits and risk factors.

The *KidsFirst* program was modeled after other well-known early childhood intervention programs. The role of theory in the development, evaluation, and ongoing improvement of the program, however, has not been documented. This paper identifies three selected theories, which correspond to the individual, family, and community improvements the *KidsFirst* program hopes to achieve.

Identifying relevant theories will assist *KidsFirst* in its evaluation research and in the ongoing improvement of the program. The theories provide a systematic representation of the activities and components of *KidsFirst*, and provide lenses through which to assess and better understand the ways in which *KidsFirst* activities promote positive changes in child and family health and development.

## What is theory?

Theories provide explanations for what we see, can measure and understand in the world. They are tools that explain or represent reality, and in this way help us better understand what we observe. Theories specify relationships between concepts, and can be applied to different settings or groups of people.

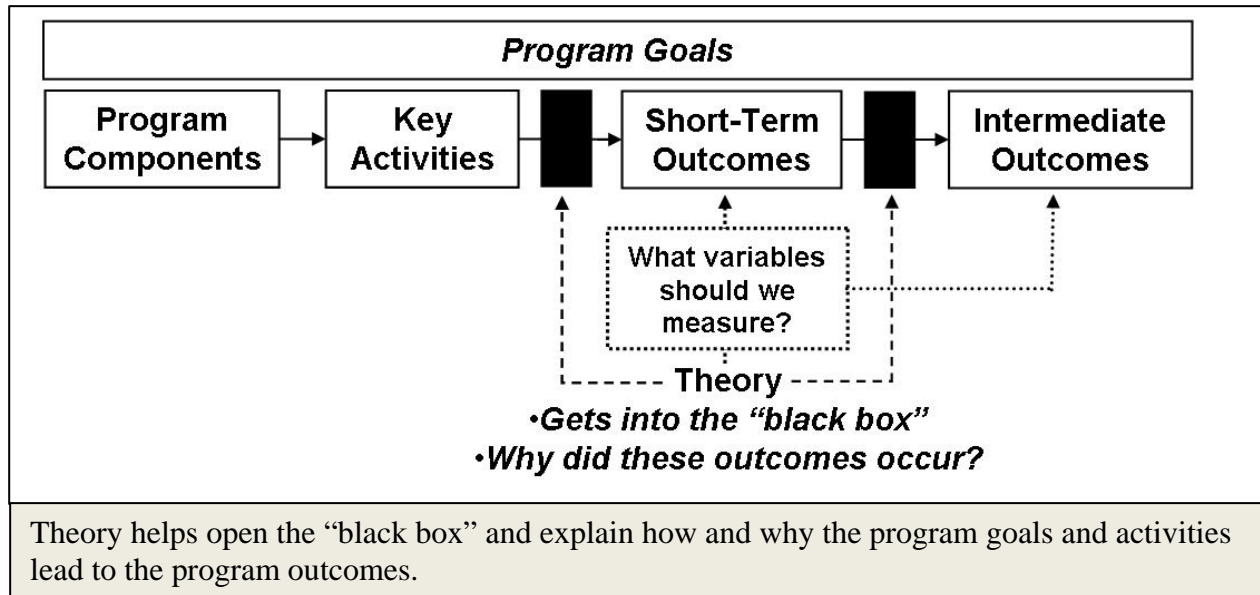
Theory has several important functions in all stages of population health programming, including planning, implementing, evaluating, and reformulating programs. Theories help program planners and evaluators view programs through certain lenses, identify problems, and design and evaluate solutions to these problems. Because theory helps untangle the complexities of what we see, it allows for a deeper understanding of a phenomenon so that interventions can be appropriately designed, targeted, and evaluated.

Theory also gives population health researchers and practitioners a common language that can be used to describe their work. This facilitates dialogue and learning within and across disciplines and program areas. Theory-informed program development and evaluation contribute to the advancement of a shared knowledge base and enable lessons to be shared beyond a specific context.

## Why is theory useful for program planning

### and evaluation?

*“Theory-based evaluation is demonstrating its capacity to help readers understand how and why a program works or fails to work. Knowing only outcomes, even if we know them with irreproachable validity, does not tell us enough to inform program improvement or policy revision. Evaluation needs to get inside the black box and to do so systematically.”<sup>2</sup>*



Theory assists in program planning and evaluation by opening the “black box” that often exists between program goals, activities, and outcomes. It sheds light on the processes through which the program brings about intended changes. Identifying underlying theory further details the program logic model (which describes what activities are done, when they are done, and to what effect, but not why the activities are expected to provide the intended results) and also within it the specific program components described in the logic model.<sup>3</sup> For example, if we consider the home visiting program component, one activity within this component may be to “work with families to identify existing strengths, resources, and needed support.” The probable short-term outcome emanating from this activity, which is measurable, may be “families are able to identify their own strengths and needs.” Specifying an underlying theory connecting the key activity and short-term outcome (why this activity may lead to this outcome) will contribute to a greater understanding of program change, and also to use of the program logic models in evaluation.

Evaluations that are informed by theory may not only determine whether or not a program was successful, but also reveal why it was or was not successful. Rather than just answering the question, “Did this happen?” theory-based evaluations answer the additional and more useful question, “How and why did this happen?” In this way, theory-based evaluations increase our confidence that, if the right circumstances and factors come together, the outcome is repeatable.

By examining how change occurs, theory-based evaluations generate more useful information for subsequent and ongoing program improvement.

## What theories are relevant to *KidsFirst*?

This section introduces three theories that are consistent with the structure, content, and values of the *KidsFirst* program. The theories capture changes at all three levels targeted by the *KidsFirst* program—child, family, and community relationships:

1. **Self-efficacy theory** emphasizes processes and changes that occur within the person (e.g., mother, father);
2. **Attachment theory** emphasizes processes between parents and children and the resulting changes;
3. **Human ecology theory** emphasizes the multiple social levels at which changes occur, and the dynamic and structural connections between the different levels.

Self-efficacy theory, attachment theory, and human ecology theory are consistent with the experiences and observations of program staff. In addition, the theories are very well-developed and accepted in the early childhood development literature.

## Self-Efficacy Theory

### Overview

Self-efficacy is an individual's self-assessed judgment of their ability to perform a task. Albert Bandura's self-efficacy theory suggests that changes in behaviour can be explained by changes in self-efficacy.<sup>4</sup> The essence of Bandura's theory is that before a person carries out a new task, they must have a strong belief that they can accomplish it. For example, in order for a mother to take her infant for immunizations, she must believe that she is able to carry out all the steps involved in this task: locating a clinic, making an appointment, getting to the appointment, and so on.

Expectations people have of their ability to perform a task are not the only determinant of behaviour. However, they are believed to be “a major determinant of people's choice of activities, how much effort they will expend, and of how long they will sustain effort in dealing with stressful situations.”<sup>4</sup>

Self-efficacy theory describes four processes through which self-efficacy affects behavioural outcomes, which in turn ultimately affect health and development.

First, **Cognitive Processes** are the plans people make intentionally to change behaviour. This often involves setting goals. Many of the behaviours that *KidsFirst* programs want to influence are purposeful and require goal-setting prior to being carried out. Self-efficacy influences goal-setting, either by limiting or expanding the number and variety of scenarios that individuals think are possible and therefore attempt to carry out.

Second, **Motivational Processes** that influence behaviour are similar to the cognitive processes already described but with an important difference: motivational processes not only describe individuals' choice of goals, but also the effort that they put into achieving those goals. Self-efficacy influences perseverance in the face of obstacles. Individuals with high levels of self-efficacy, and therefore high motivation, perceive difficult situations as challenges to be mastered, while those with low levels of self-efficacy (and therefore, low motivation) see these same situations as threats that will set them back.

For example, a mother sets the goal of bringing her child to the clinic for a check-up. She visualizes several intermediate steps such as making a call and booking an appointment, arranging transportation, finding the clinic, and so on, but, because of low self-efficacy, sees these steps as threats or barriers. When she faces an obstacle, like a busy signal when she calls to make an appointment, or missing the bus she planned to take, she lacks the motivation to continue trying to complete the task in the face of these setbacks, and abandons her original goal completely.

With high self-efficacy, however, the mother perceives difficulties as challenges that she can master and pursues her goal regardless of the obstacles that she faces. In this example, a mother with high self-efficacy who misses the bus may find another bus route, phone the clinic to say she'll be late, or arrange for alternate transportation to the clinic. While the mother in the first scenario doesn't believe in her ability to complete the task successfully and views obstacles as proof of her inability to complete the task, the mother in the second scenarios is confident in her ability and motivated to complete the task.

Third, self-efficacy may influence behaviour through **Affective Processes**, or emotions. Self-efficacy directly impacts levels of stress and depression through individuals' perceptions of various situations. It also affects coping behaviours and individuals' ability to control stressors. Part of self-efficacy involves the belief in one's ability to manage threats and stressors effectively. If this belief is weak, an individual is likely to become increasingly stressed, fatigued, or depressed, which will reduce his or her ability to carry out the desired behaviour.

Fourth, **Selection Processes** concern how people choose to carry out some behaviours and not others. Because self-efficacy influences people's choice of actions, it affects their choice of environments where these actions are performed, and even their life course development. For example, individuals with low self-efficacy may avoid working in anything other than a low-skill, less complicated work environment because they don't believe in their ability to perform successfully in higher-skill, more complicated work environment.

### **Factors Influencing Self-Efficacy**

Self-efficacy theory outlines four factors which influence self-efficacy. Knowing what factors influence self-efficacy will provide guidance for program planners concerning how to intervene more effectively.

First, **past personal experiences** of success and mastery strengthen an individual's belief in her ability to manage similar situations in the future. For example, if a mother successfully breastfeeds her child, her self-efficacy regarding that situation improves. In contrast, experiences

of unsuccessful breastfeeding will have a negative effect on self-efficacy in performing that behaviour in the future.

Second, **vicarious experiences** involve one individual observing another as he or she carries out a task or activity. They have the greatest influence on self-efficacy when there are similarities between the two individuals. It is also helpful if the model teaches and provides explanatory information in addition to simply performing the task.

Third, through **social persuasion** one person can influence the self-efficacy of another, by expressing their belief that the individual has the required skills and competencies to succeed.

Fourth, **physical and emotional states**, such as stress, fatigue, and negative mood, can lower an individual's self efficacy, as they are seen as signs that she lacks the ability to succeed. Self-efficacy can be influenced by changing how individuals interpret these symptoms and by reducing their frequency.

The impact of each of these factors varies, but it is generally accepted that past successful experiences have the greatest impact on increasing self-efficacy.

### **How is self-efficacy theory relevant to *KidsFirst*?**

Self-efficacy theory provides helpful explanations for several components of the *KidsFirst* program.

**Family Assessments:** Family assessments serve to evaluate the needs of the parent, child and other family members and to determine how specifically to address these needs. Ongoing assessments help the program managers to monitor families' progress towards achieving their intended goals, as well as to identify any new needs that may occur. Family assessments therefore provide a reliable way to measure the needs of the parents and family, including psychosocial needs such as self-efficacy, and to monitor if and how these needs change over time in the program.

The self-efficacy theory may also be useful in determining which programs and services are the most appropriate for the parent, based on her existing levels of self-efficacy. Parents who perceive that they are not very capable of performing multiple tasks of importance to themselves and their children may require a different intervention or a different approach than those parents with high perceived capabilities.

**Home Visiting:** Self-efficacy theory is particularly relevant to the home visiting component of the *KidsFirst* program. The theory provides a clear link between home visiting activities and outcomes, and explains how *KidsFirst* positively influences families. Self-efficacy theory offers insight for strengthening the impact of home visitors as they model healthy parenting behaviours and support families through positive social persuasion. The impact of home visitors will be maximized when program families relate closely to the home visitors, and visitors share their practical knowledge in addition to modelling, or demonstrating, the targeted behaviour. The

theory could also be used to identify targets for improvement if certain areas of the program, such as home visiting, are not working in expected ways.

**Evaluation:** An objective of the *KidsFirst* evaluation is to assess whether parenting confidence and knowledge is higher in *KidsFirst* families than in comparison families. Self-efficacy theory provides evaluators and program staff with several reliable evaluation tools to assess if, how, and why *KidsFirst* is improving parental confidence and knowledge. It also adds valuable depth to the evaluation by explaining the relationships between parental beliefs in their abilities, knowledge and behaviours.

<b>Key Activities</b>	<b>→ Activities Develop Self-Efficacy →</b>	<b>Short-Term Outcomes</b>
<ul style="list-style-type: none"> <li>• Work with families to identify existing strengths, resources, and needed support</li>   <li>• Assist families to set goals and identify steps to achieve goals</li>   <li>• Develop personalized plans for eligible families</li>   <li>• Provide learning opportunities</li>   <li>• Model advocacy skills and advocate for families</li> </ul>	<ul style="list-style-type: none"> <li>• Verbal/social persuasion develops self-efficacy by indicating to families that they have the ability to conduct certain behaviours and tasks that were previously seen as threatening</li>   <li>• Goal development and personalized plans help to ensure success and to avoid failures, which can be harmful to self-efficacy, especially in vulnerable families</li>   <li>• Personalized plans encourage resilience, effort, and commitment and strengthen self-efficacy by ensuring that challenges are mastered</li>   <li>• Help individuals who lack certain skills to develop them</li>   <li>• Modelling strengthens self-efficacy through vicarious experiences</li> </ul>	<ul style="list-style-type: none"> <li>• Families are able to identify their own strengths and needs</li>   <li>• Parents have a better understanding of children’s growth and development</li>   <li>• Parenting skills/knowledge are strengthened</li>   <li>• Self-reliance of families is increased</li>   <li>• Families increase their confidence in engaging with service providers</li> </ul>

Outlined above are some examples of how self-efficacy theory can assist in achieving the desired outcomes in the Home Visiting component of the *KidsFirst* program.

# **Attachment Theory**

## **Overview**

John Bowlby's theory of attachment, first published in 1969, seeks to understand the nature of the mother-child bond, and why children become so distressed when separated from their mothers.<sup>5</sup> Bowlby suggested that a child's tie to his mother is the product of attachment behaviours which are intended to establish or maintain proximity between the child and the attachment figure.

## **Attachment Behaviours**

Attachment behaviours include signalling behaviours, like crying, smiling, calling, gesturing, and babbling, and approaching behaviours, like seeking, following, and clinging. These behaviours differ in their causes and objectives. Crying, for example, will likely evoke a faster, more concerned response from the attachment figure than will smiling.

There are several conditions that may activate attachment behaviour. These include distance from the attachment figure, absence of the attachment figure, condition of the child (e.g., hungry, ill, cold), alarming or frightening events, rebuffs by other individuals, and the passing of time. Attachment behaviours are terminated by the sight, sound, or touch of the attachment figure, which are all signs to the child that the objective has been reached.

Because attachment is not about physiological needs or drives, attachment theory suggests that the best way to strengthen the bond between an infant and parent is by maximizing their social and emotional interaction. Attachment behaviours are reinforced by the attachment figure's readiness to respond to behaviour cues exhibited by the child and her willingness to initiate interaction. Bowlby notes that "the mothers whose infants are most securely attached to them are mothers who respond to their babies' signals promptly and appropriately, and who engage in much social interchange with them—to the delight of each party."<sup>5</sup>

## **Attachment Figure**

The attachment figure provides contact comfort when needed and a secure base from which the infant can explore and learn. While the mother is the most frequent primary attachment figure, attachment behaviours are usually exhibited in varying intensities toward more than one person. The more people a child is attached to, the stronger each one of the bonds becomes. Attachment behaviour is discriminatory and highly individualized. The child can distinguish the attachment figure, e.g., the mother, from strangers, and act accordingly.

At a very young age, infants lack the mobility and development to stay close to their mother and therefore rely on the attachment figure to maintain or establish proximity. As infants age, a gradual shift occurs and children become increasingly responsible for maintaining the proximity between themselves and their attachment figures.

When a child is firmly attached to the attachment figure, they feel comfortable using her as a secure base from which to explore and experiment. Characteristics of a secure base change over time. They include sensitive and cooperative interaction, explicit secure base instruction (e.g., "Stay close to Mommy"), and as children grow, the encouragement of independence.

## **Timeline for Attachment Behaviours**

Attachment behaviours, though present throughout life, are strongest at two to three years of age. The timeline for the onset of attachment behaviour, as described by Bowlby in 1969 based on the understanding of child development at the time, is as follows:

- From birth to approximately 8-12 weeks, infants are unable to differentiate between an attachment figure and a stranger and do not exhibit attachment behaviour.
- From approximately 12 weeks to six months of age, orientation and signalling become more marked and infants begin to act differentially towards their mother and other caregivers. The period from four to six months is particularly sensitive for attachment to develop.
- From approximately six months of age into the child's second or third year, indiscriminating responses decrease, and the child maintains proximity to a specific figure. The child is considered to be exhibiting attachment behaviour because both differentiation and the maintenance of proximity are present.
- After this phase, more complex, goal-oriented ties are formed between the child and one or usually more attachment figures. The child gains insight into their mother's activities, motives, and feelings and acts accordingly to maintain attachment.
- Attachment behaviour is strongly and regularly exhibited until the child's fourth birthday, at which point an increased confidence and security with strange places weakens attachment behaviours to a primary figure. However, attachment exists in some form throughout life.

Within this timeline, there is significant individual variation. Conditions such as hunger, fatigue, illness, unhappiness, alarm, or the movement or absence of the attachment figure affect the intensity of attachment behaviour. A contented, well-rested infant will exhibit less strong attachment behaviours than the same infant an hour later, for example, when he or she is hungry.

## **How is attachment theory relevant to *KidsFirst*?**

The *KidsFirst* program supports the formation of attachment processes in families, with explicit program outcomes that identifies strengthening parent-child relationships and improving family interactions as program goals. The usefulness of attachment theory is that it explains the nature and origin of attachment behaviours between the child and mother (and others), and provides a guide for describing, assessing, and strengthening this relationship.

The theory can act as a guide for program developers, site staff, and evaluators to assess attachment behaviour at various stages in a child's life. This may be useful for home visitors in assessing and understanding the current state of attachment between the child and his or her caregivers and can provide site staff with indications of whether or not attachment is progressing as expected.



By encouraging parents to respond readily to their children’s social and emotional advances and to initiate interactions with them, home visitors can strengthen the attachment between parents and children.

*KidsFirst* evaluators, who have expressed a desire to determine whether, and to what extent, parent-child interaction is better (or in some instances comparable) in *KidsFirst* families than in non-*KidsFirst* families, can use the theory to evaluate areas such as the degree of social interaction between mothers and children.

In addition, the construct of a secure base can be used by *KidsFirst* in the crucial home visiting program component. Home visitors can encourage, support and even model the formation of a secure base from which *KidsFirst* parents and caregivers may explore and experiment with accessing new resources and support systems; in this way, they can gradually enhance their independence from the home visitor and the program.

Attachment theory strengthens the *KidsFirst* evaluation framework by providing evaluation targets, information on the nature and origin of attachment behaviours, and hallmarks of strong attachments. Attachment theory can take the evaluation from describing whether or not the program is working to a practical discussion of why the program is or is not working and how the program can be improved.

## ***Human Ecology (Ecology of Human Development) Theory***

### **Overview**

Developed in 1979 by Urie Bronfenbrenner, human ecology (ecology of human development) theory represented a major shift in the focus and methodology of child development research.<sup>6</sup> While existing work in developmental psychology focused on studying the individual characteristics of children, Bronfenbrenner and other ecological researchers stressed instead the importance of multiple environments surrounding the developing child, such as home, school and neighbourhood.

According to human ecology theory, human development is influenced by the social settings that surround a developing person as well as the relationships and connections between these settings. Social settings exist at multiple levels—from the individual to society at large. The settings are more conducive to positive child development when there are strong links between them.

<b>Social Setting</b>	<b>Definition</b>	<b>Example from <i>KidsFirst</i></b>
Microsystem	A set of activities, roles, and interpersonal relationships in a given setting	<ul style="list-style-type: none"> <li>• “Mother” role</li> <li>• Breastfeeding initiation and maintenance</li> </ul>
Mesosystem	Interconnected settings in which the developing person actively participates	<ul style="list-style-type: none"> <li>• Relationships between home and childcare environment</li> </ul>

Exosystem	Settings which affect the developing person but in which they are not an active participant	<ul style="list-style-type: none"> <li>• Parents' workplace</li> <li>• Home visitors' office</li> </ul>
Macrosystem	Ideologies, cultural norms, and policies that form the foundation for other settings	<ul style="list-style-type: none"> <li>• Community characteristics</li> </ul>
According to human ecology theory, human development is influenced by the social settings that surround a developing person as well as the relationships and connections between these settings.		

### **Optimizing Interconnections Within and Between Settings**

Interpersonal relationships enhance development when there is reciprocity, positive affect, and a gradual shift of power and autonomy to the child. This includes mutual trust and affection, common goals, balance of power, and two-way communication.

Every individual in a relationship is affected by the development of another member. It is important to keep this in mind when assessing the impact of programs, as individuals other than the intervention target may be affected. Therefore, individuals who are not involved in the home setting (e.g., parents' employers, home visitors) should also be considered, as they may detract or enhance the development of the child and their family.

Mesosystem settings have the highest development potential if the child's transition into new settings is made in the company of individuals with whom they have a strong pre-existing relationship in a familiar setting. For example, if a mother who has a strong home relationship with her child accompanies the child to a new setting such as childcare, the transition will be smoother and will likely boost the development potential of the child in the new setting.

Child development is enhanced when settings such as home and school, or home and peer groups are linked by multiple individuals who create supportive links for the child as they transition between various settings. Linkages between settings may include participation of the caregiver in both settings, linkage through an intermediary (e.g., the home visitor), communication between settings, or knowledge between settings.

Incorporating human ecology theory into a program is challenging as it requires the inclusion of a wide range of constructs, some of which are difficult to observe in the immediate setting. Public policy, for example, is a major influential factor in early childhood development and should be analyzed and understood to ensure that it is conducive to development.

### **How is human ecology theory relevant to *KidsFirst*?**

Human ecology theory explores child development within larger, overlapping social contexts. *KidsFirst* can benefit from the human ecology theory by identifying specific social contexts and their impact on the program participants, or the theory could help by identifying program components that are influenced by external contexts and help negotiate with stakeholders who at first may seem peripheral to the development of the child.

A key feature of human ecology theory is the emphasis on interconnections between settings. *KidsFirst* presents many practical examples of interconnections between settings such as a parent

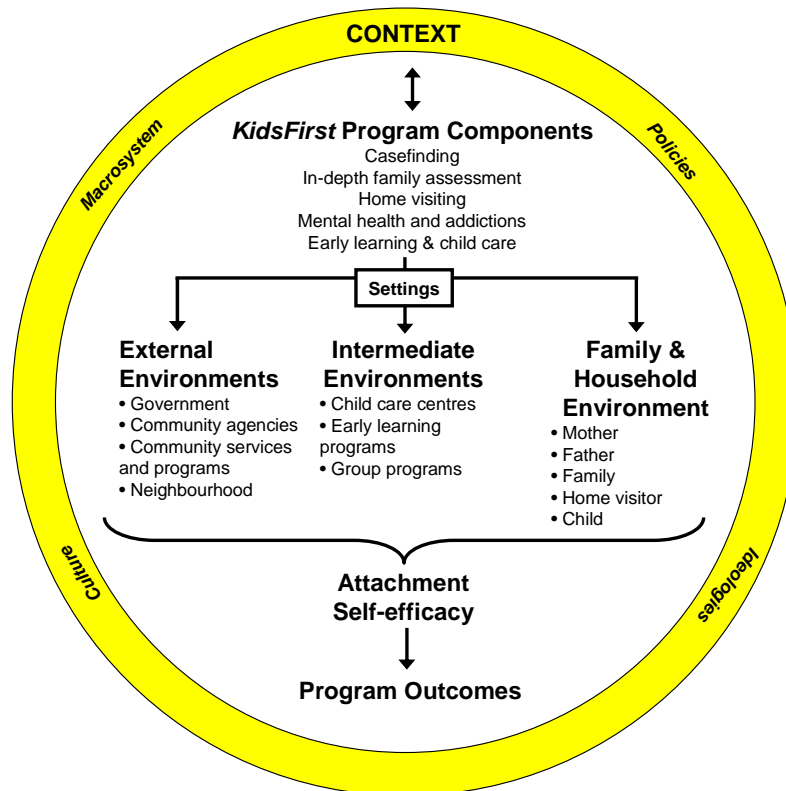
who is a member of the parent council at the child’s school (joint participation), a health care professional who phones the home of a developing child (cross-setting communication), or simply an individual in one setting who is familiar and effective in another setting.

For the developing child, the most important settings are home, school, and their peer group. *KidsFirst* can evaluate the relationships within and between these settings to assess the degree to which they exhibit the optimal conditions for development (reciprocity, balance of power, positive affect).

## Conclusion

The theories of self-efficacy, attachment, and human ecology operate together to provide a series of lenses, or perspectives, through which we can better understand the *KidsFirst* program. These lenses shed light into the black box that exists between program activities and outcomes to reveal the mechanisms of change that are operating at the individual, family, and community levels.

The incorporation of theory into the *KidsFirst* program will guide the ongoing evaluation and conduct of the program and maximize the program’s ability to achieve its vision, goals, and objectives.



Theory provides both the context (the settings) and the process (how activities shape results) for examining and evaluating the *KidsFirst* program at the individual, family and community levels.

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For general information regarding SPHERU's research  
please contact us at a centre nearest you:

**SPHERU Saskatoon**

E-mail [spheru@usask.ca](mailto:spheru@usask.ca)  
Phone (306) 966-2250  
Fax (306) 966-6487

**SPHERU Regina**

E-mail [spheru@uregina.ca](mailto:spheru@uregina.ca)  
Phone (306) 585-5674  
Fax (306) 585-5694

**SPHERU Prince Albert**

E-mail [spherupa@uregina.ca](mailto:spherupa@uregina.ca)  
Phone (306) 953-5535  
Fax (306) 953-5305

SPHERU is a bi-university, interdisciplinary research unit committed to critical population health research. The SPHERU team consists of researchers from University of Saskatchewan and University of Regina who conduct research in three main areas - northern and aboriginal health, rural health, and healthy children.



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