In September 2012 the Fraser Mustard Institute of Human Development at the University of Toronto was launched. We opened the Institute with a scientific meeting that crossed many disciplines. The main message from the meeting is that the first 2000 days of children’s lives are critical to their life-course trajectory. One focus of talks related to the prenatal environment. Exposures in utero, such as lead and maternal nutrition were linked to later outcomes such as IQ and weight in children. A second focus related to the quality of care that children receive in the first two years. Extreme experiences such as being raised in institutional care affect many aspect of development: their attachment relationships, the way that they learn to read others’ expressions and their own emotional states. But even less extreme examples of caregiving variation have long-term effects on the ways that children develop. Unresponsive and insensitive parenting during infancy was shown to compromise later social and emotional regulation as children enter school. A third topic involved the interface between genes and early environments. Two mechanisms of importance to human development were demonstrated. Some children, because of individual genes and gene combinations, are more reactive to risky environments than other children. This is referred to as the study of gene by environment interaction. Furthermore, animal studies have shown that the role of certain genes can be switched on or off by exposure to risky pre and post-natal experiences (e.g. poor nutrition, poor early caregiving). A final topic related to the study of interventions that can improve the life course trajectories of children. Data were presented about parenting, childcare and school programs that may change the trajectories of children.

For me this conference raised three critical issues about the action that we must take to support children’s development.

- Given the importance and long-lasting impact of the first 2000 days, we have to optimize the experiences that children have in this period. For how we do this see below.
- Second, there are many single influences and combinations of
influence that work together to explain early human development, with development being most affected when risks occur together. Unfortunately, one risk attracts another. So for instance, social disadvantage brings with it more neuro-developmental problems in children, more mental health problems in parents and more relationship problems across family members. This means that the most vulnerable parents are often dealing with the most vulnerable children and that combination is not a good one for development across the life course. Our goal must be to provide supports for families that stop this clustering of risk.

• Third, we have high-quality scientific evidence that shows us that we can change environments and that these changes lead to better mental health and learning in children. If we raise families out of poverty, they can parent their children more effectively. This translates into fewer mental health problems for children as they grow up\(^1\). We can teach parents to be more responsive to their babies and the babies show better language and social skills. Parents only need five sessions of this kind of training to make big changes\(^2\). Good quality childcare has been shown to be very important in changing the trajectories of children living in high-risk circumstances with the good effects being evident 20 years later\(^3\). (If you want to read the original studies write to us and we’re happy to send them).

At the Atkinson Centre we are now using high-quality scientific evidence to help us to understand how we can intervene and when for the largest impact on young children’s learning and social/emotional well being.

Jennifer Jenkins
Atkinson Chair in Early Child Development

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The Atkinson Centre for Society and Child Development is a research centre based at the Ontario Institute for Studies in Education. It is committed to using the best available evidence to inform public discourse, public policy and the professional learning of early childhood educators and elementary school teachers.

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