

Section 2 Developmental Health

Introduction to Developmental Health

Developmental Health has been defined as the physical and mental health, well-being, coping and competence of human beings (Keating, 1999) and is the combination of health and developmental outcomes. Many different factors can positively or negatively affect developmental health. If we want to impact a child's development and ultimate life trajectory, we must understand the key risk and protective factors that strongly influence children's future health and well-being.



Some of the factors influencing children's developmental health include income, education, health, culture, parenting, neighbourhood, and social status. It is a challenge to present this complex web of factors which influence child development, as most of them are interrelated. For example, income is a powerful indicator which can impact education level, access to health and child care services, choice of neighbourhood, stress level, transportation, and social status.

Child development is cumulative in nature. A nurturing and stimulating environment will promote learning skills that in turn allow the child's curiosity and creativity to blossom and may even "open future possibilities in spite of biological interventions" (Shanker, 2008). On the other hand, adopting a "wait and see" approach when a child is showing some atypical or delayed development in one domain, can negatively impact many areas of development over time (OCPF, 2005).

Over the years, a number of different models have emerged which attempt to explain the interaction of factors that influence child development. To date, Bronfenbrenner's ecological system of human development (1979) is the most widely used models in both public health and child development. This system evolved to represent the interconnectedness of biological and social environments.

Bronfenbrenner's Ecological Model

In his original model, Bronfenbrenner (1979) outlines four different levels that interact with one another: the microsystem, the mesosystem, the exosystem, and the macrosystem. A visual representation of his model is shown in Figure 1. Bronfenbrenner's (1979) definition of each system provides further clarification.

- ◆ Microsystem - "a pattern of activities, roles, and interpersonal relations experienced by the developing person in a given setting with particular physical and material characteristics" (p. 22). Sample settings can include the home,

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school, and child care centre. Tudge et al. (2000) note that there is “a tendency to focus on development within a single microsystem - on development within the family, or at school, or with the peer group” (p. 2).

- ◆ Mesosystem - “the interrelations among two or more settings in which the developing person actively participates (such as: for a child, the relations among home, school, and neighborhood peer group; for an adult, among family, work, and social life)” (p. 25)
- ◆ Exosystem - “one or more settings that do not involve the developing person as an active participant, but in which events occur that affect, or are affected by, what happens in the setting containing the developing person. Examples of an exosystem ... might include the parent’s place of work, a school class attended by an older sibling, the parents’ network of friends ...” (p. 25)
- ◆ Macrosystem - “consistencies ... at the level of the subculture or the culture as a whole, along with any belief systems or ideology underlying such consistencies” (p. 26). Some examples provided include the differences in playgrounds, schools or coffee shops in different counties.

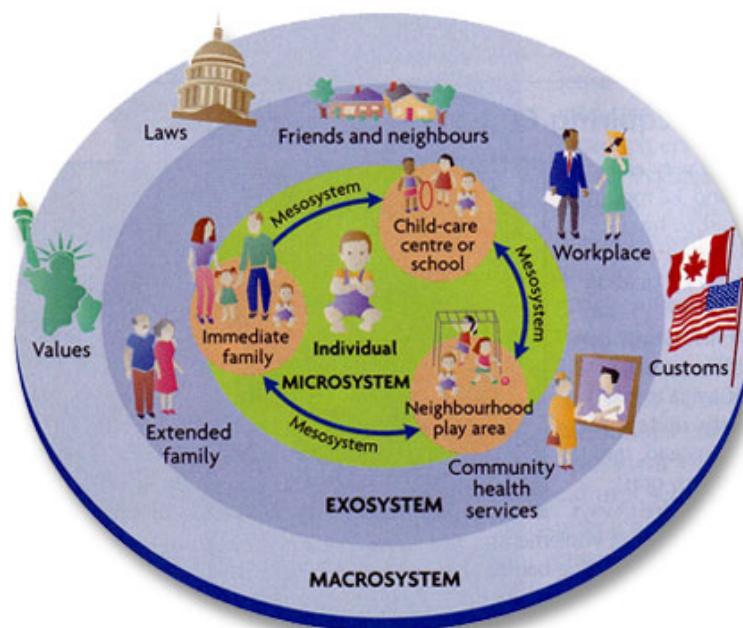


Figure 1. Bronfenbrenner's ecological systems theory
(in Berk & Roberts, 2009, p. 28)

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Determinants of Chronic Conditions and Special Health Care Needs Among Children

A similar type of model, often used in the context of social pediatrics, shows the determinants of chronic conditions and special health care needs among children (see Figure 2). As in Bronfenbrenner's model, each level is nested within another system, and incorporates factors affecting the child, family, community, and society. A common feature of both models is that the child is found at the core, and remains the central focus. In this model (see Newacheck et al., 2008), a wide range of determinants are outlined. They are essentially based on the Determinants of Health (Health Canada, 2001; WHO, 2003). These physical and social factors affect a person's health and well-being, but have an even more significant impact on a child's trajectory of development

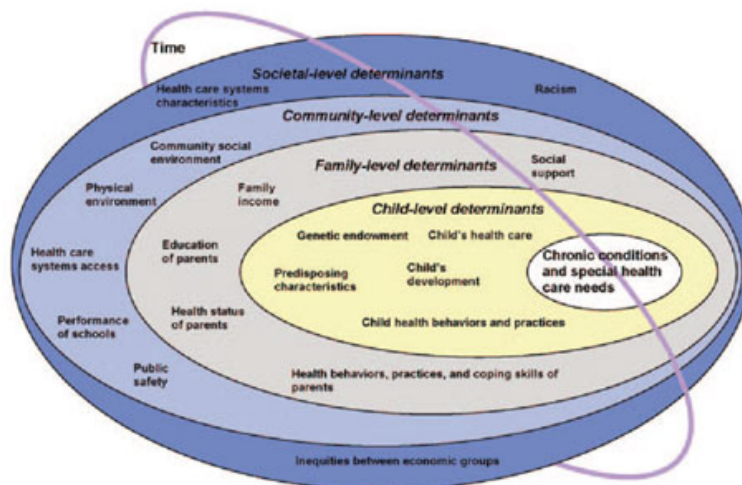


Figure 2. Determinants of Chronic Conditions and Special Health Care Needs Among Children [from Newacheck, Rising, & Kim, 2006 in Newacheck et al. (2008), p.348]

Determinants of Health

In recent years, there has been a shift from looking at the health of individuals, to looking at the health of populations (Ford-Jones, Williams, & Bertrand, 2008; Hertzman & Irwin, 2007) and how their health is determined. Children are in need of support through parenting and supportive communities and therefore most affected by the determinants of health.

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The first six years of life set “a base for learning, behaviour and health over the life cycle” (McCain & Mustard, 1999, p. 2). Furthermore, it has now been well established that both nature (e.g., genes) and nurture (e.g., environment) interact and influence developmental outcomes throughout life (Ford-Jones, Williams, & Bertrand, 2008; Mustard, 2008; National Collaborating Centre for Determinants of Health, 2008a).

The key determinants of health identified by Health Canada (2001) are:

- ♦ Income and social status
- ♦ Employment
- ♦ Education
- ♦ Social environments
- ♦ Physical environments
- ♦ Healthy child development
- ♦ Personal health practices and coping skills
- ♦ Health services
- ♦ Social support networks
- ♦ Biology and genetic endowment
- ♦ Gender
- ♦ Culture

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An environmental scan completed by the National Collaborating Centre for the Determinants of Health (2008b) assessed the challenges faced by professionals supporting early child development. The following themes emerged across Canada:

- ◆ Early child development needs to be a priority issue in policy and practice.
- ◆ Poverty is the factor creating most stress within families and undermines healthy child development.
- ◆ Some population groups face considerable inability to access services related to:
 - Language barriers,
 - Transportation issues,
 - Availability of programs and services,
 - Stigma
 - Cost
- ◆ There is lack of coordination of services.
- ◆ There are not enough human resources allocated to programs and services for early child development.
- ◆ Home visiting programs have demonstrated good results, but lack scientific evidence.
- ◆ Children enter school demonstrating various levels of school readiness.



These themes will need to be kept in mind when assessing the factors affecting each child's development.

To help professionals assess the factors affecting a child's development, they have been grouped into four areas:

- ◆ Environmental factors
- ◆ Biological factors
- ◆ Interpersonal relationships
- ◆ Early environments and experiences (Shanker, 2008; Blair & Diamond, 2008)

From the many factors affecting the child's development, we have taken some examples to illustrate each category.

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Environmental Factors

Factor or condition	Child-level determinants	Family-level determinants	Community-level determinants	Society-level determinants
Housing	Does the child have space to play and explore?	Is there overcrowding?	Is there green space such as parks where children can play?	Is there evidence of community building when planning new developments?
	Is the child safe from injury or contaminants such as lead?	Are there any housing conditions contributing to ill health such as moisture and molds?	Is the community safe from crime and environmental pollution?	Is there housing support for low income families?
Income	Does the child have adequate clothing -e.g. snowsuit and boots in winter weather?	Is the family experiencing financial stress or a high debt load?	Are there low cost community programs for children and families?	Are social assistance programs and subsidies available and accessible to those in need?
	Does the child receive adequate nutrition? Fresh fruits and vegetables are more costly in Northern communities.	Is the family a single parent family or do they have to rely on one income?	Does the community provide secure access to food such as food banks?	Do programs exist that provide specific subsidies for food?
Employment	Does the child have quality child care, when parents are working?	Do families, especially single parents, have child care stress?	Does the community have high rates of employment?	Is there equality in income?
		Do families have meaningful and adequate employment?	Do families have to commute to access meaningful employment?	
Education	Does someone read and play with the child?	What level of education do family members have?	Is parental engagement in early education encouraged in the community?	Are programs in place to keep adolescents in school and improve their education?

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Environmental Factors

Factor or condition	Child-level determinants	Family-level determinants	Community-level determinants	Society-level determinants
	Does the child have access to books and toys that stimulate literacy development?	Do families have practices and beliefs that encourage literacy development?	Are there options for adult and family education, including ESL classes?	
	Does the child attend quality early childhood education programs?	Do families have access to early childhood education programs?		Is early childhood education valued, and supported through policies and practice?

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Biological Factors

Factor or condition	Child-level determinants	Family-level determinants	Community-level determinants	Society-level determinants
Gender	Is the child a boy or a girl? Boys and girls tend to develop and learn differently (e.g. currently boys have lower levels of school readiness).	Is there evidence of gender stereotyping, or abuse in the family?	Are women and men from various cultures and backgrounds evident as community leaders?	Are women's rights, women's equality and children's rights protected?
General health	Was the child born with a healthy birth weight? Being born small or large for gestational age is linked to obesity and chronic disease.	How was the mother's preconception and prenatal health? Folic acid intake for 3 months prior to conception significantly reduces neural tube defects.	Is there access to health services in the community (e.g. medical, dental, vision, hearing, speech and language)?	Is there universal access to quality health and specialty services for children?
	Does the child have a medical condition?	Do family members have chronic conditions? Parents with disabilities or chronic disease may require added supports.	Is there community support for people with disabilities?	Is there adequate financial and program support for families with disabilities?
Mental Health	Does the child have a warm and nurturing environment?	How is the mother's perinatal mental health? 1 in 5 mothers will suffer from depression, anxiety or another mood disorder during pregnancy or the first year after birth.	Are there programs to support mothers' mental health during pregnancy and postpartum?	Is there societal support to reduce social stigma of mental illness and provide perinatal mental health services?

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Biological Factors

Factor or condition	Child-level determinants	Family-level determinants	Community-level determinants	Society-level determinants
	Does the child have consistent and responsive care-givers?	Do family members experience trauma, abuse or poor mental health?	Are there community supports such as shelters, respite care, programs and services that promote coping skills?	Is there societal support to reduce social stigma of abuse and provide services for victims of trauma and abuse and those experiencing mental illness?
Health practices	Does the child have a pattern for eating, sleeping and playing?	Does the family attend to nutrition, set consistent times for sleep and engage in active play?	Are there parenting classes that offer information on nutrition, sleeping and activity?	
	Is the child breastfed or receiving breastmilk?	Does the family have information and support to make an informed choice to breastfeed?	Is there public, peer and professional support for breastfeeding women?	Is the practice of exclusive breastfeeding to 6 months and continued breastfeeding with complementary foods accepted and encouraged?
	Does the child take part in structured and unstructured physical activities for at least 60 minutes and up to several hours per day?	Are physical activity practices encouraged by family members?	Are community programs and spaces available to encourage physical activity year round?	Is free, active play and physical activity encouraged in pre-school and kindergarten curriculum?
	Are children introduced to consistent oral hygiene practices?	Are oral hygiene and dental health practices encouraged?	Are low cost dental programs available?	

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Interpersonal Relationships



Relationships are particularly important as infants learn primarily through their relationship with others. Eye contact, smiles and imitation set the stage for more sustained communication and meaningful exchanges and engagement with parents and other caregivers, and a growing world of relationships (Field, 2007; Gerhardt, 2004; Greenspan & Shanker, 2004; Shanker, 2008).

Factor or condition	Child-level determinants	Family-level determinants	Community-level determinants	Society-level determinants
Attachment	Does the child show a secure attachment pattern to her primary caregiver?	Is the primary caregiver available and responsive to the child cues to assist her in developing a secure attachment?	Are programs available to promote attachment parenting?	Are primary caregivers given financial and instrumental support to develop a secure attachment with their child (e.g. self-employed mothers do not receive maternity benefits)?
Parenting styles	Does the child experience a consistent parenting style?	Do parents provide a consistent parenting style (e.g. authoritative, authoritarian, permissive or uninvolved)?	Are parenting programs available? Parents use their own parents as role models, but don't want to make the same mistakes as their parents.	Are the rights and responsibilities of parents recognized in workplace and other policies?

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Interpersonal Relationships

Factor or condition	Child-level determinants	Family-level determinants	Community-level determinants	Society-level determinants
Social networks	Does the child have relationships with other adults and children?	Does the family have extended family and/or social networks they belong to?	Are interest groups available that include the whole family (e.g. religious groups, cultural groups, activity groups)?	Is there societal support for the development of diverse interest groups that include the whole family?
	Does the child have friends and is there evidence of peer acceptance?	Is there evidence of acceptance of the family within the community or network?	Does the community foster a sense of belonging for all families regardless of cultural, sexual or religious orientation?	Is there evidence of support of human rights, and lack of discrimination?

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Early Environments and Experiences

These have already been mentioned in the examples given. The most important early environment for an infant is her primary caregiver. How the primary caregiver responds to the child shapes the early brain pathways and builds the foundation for future learning. Early experiences involve all senses through:

- ◆ Touch - e.g., skin-to-skin holding
- ◆ Smell - e.g., smell of mother's skin and breastmilk
- ◆ Taste - e.g., taste of breastmilk
- ◆ Sight - e.g., eye contact, gazing at face
- ◆ Hearing - e.g., hearing a familiar voice

A child needs experiences like these to develop her social, emotional, language, cognitive, and physical skills (Greenspan & Shanker, 2004; McCain, Mustard & Shanker, 2007; Shanker 2010). Over time these experiences become more and more complex until she has reached the ability to think symbolically, build bridges between ideas, connect feelings and develop an understanding of how the world works. All this is done through continued reciprocal interactions with adults and peers (Greenspan & Shanker, 2004; Mandler, 2004).

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Supporting Aboriginal Development

“Aboriginal people believe that children do not belong to us but are gifts sent from the Creator. It is our job to nurture and guide children throughout their childhood so they will grow to fulfill their purpose while on earth. Because children are so sacred, it is everyone’s responsibility to nurture them and keep them safe, to provide them with unconditional love and attention so they will know they are wanted and hold a special place in the circle. Every child regardless of age or ability has gifts and teaches us a lesson. They are all unique and should be respected” (Best Start Resource Centre, 2006, p. 19).

The Aboriginal approach to early child development is holistic and includes all areas of development within the child as represented by the medicine wheel.



by Melanie Ferris/Huntinghawk

The four areas of the circle represent the following areas of development:

- ◆ Physical - includes motor development, sleep, body weight, nutrition, medical care, and physical environment
- ◆ Mental - includes cognitive and language development
- ◆ Emotional - includes social and emotional development including self-confidence and a sense of belonging
- ◆ Spiritual - includes the child’s relationship to her self, family, nation, land, animals and the spirit world
- ◆ (Best Start Resource Centre, 2006)

Although many factors have contributed to the challenges in the health and healthy development of some Aboriginal children, not all face these challenges. And when an Aboriginal child is given the opportunity to learn her language, customs and traditions through respectful and nurturing environments, she is more likely to develop resiliency (Best Start Resource Centre, 2006). Aboriginal parents need to be supported in reclaiming their parenting skills and traditions. Non-Aboriginal early childhood programs need staff and curriculum that incorporate Aboriginal cultures in a respectful way that must be evident in practice (Ball, 2008; OECD, 2004). This should include learning from Elders, traditions, ceremonies and families (Ball, 2008; Best Start Resource Centre, 2006; CCL, 2007).



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Cultural Considerations

Stressors Faced by Newcomers

There are many reasons why people come to Canada. Some immigrate based on the promise of a brighter future for families. Others leave their homeland because of persecution or war. To leave a home country and transition to a new one, often with a different language and set of customs, can be very stressful. Although this major life transition may at first be exciting, all newcomer families experience “acculturative stress” (Neufeld et al., 2002, p. 752).

Newcomers may face a multitude of stressors which in turn can impact the development of children born prior to or after the parent’s arrival in Canada. These can include:

- ◆ Unemployment and underemployment
- ◆ Poverty
- ◆ Social exclusion, isolation
- ◆ Racism, discrimination
- ◆ Language and education challenges, such as waiting for English classes or the need to retrain or recertify
- ◆ Challenges accessing services due to language barriers, cost, transportation, social stigma, beliefs, lack of knowledge about services and understanding of services
- ◆ Lack of culturally appropriate services
- ◆ Altered expectations for women, such as having to fulfill traditional roles, new roles and added caregiver burdens without the support of extended families

(Berry, 2001; Cheong et al., 2007; National Collaborating Centre for Determinants of Health, 2008a; Neufeld et al., 2002; Oliver et al., 2007; Phinney et al., 2001; Thomas, 1995)

Understanding Cultural Differences

Childrearing practices across cultures share these broad goals:

- ◆ To promote the child’s physical well-being
- ◆ To promote the child’s psycho-social well-being
- ◆ To provide children with the competencies necessary for economic survival in adulthood
- ◆ To transmit the values of their culture



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Families are the first and most important channel for the transmission of culture. Culture and family characteristics affect both resilience and vulnerability in the healthy development of young children (Melendez, 2005). Childrearing practices are embedded in the culture and determine behaviours and expectations surrounding childhood, adolescence, and the way children parent as adults (Small, 1998).

A lack of understanding of the various childrearing practices can lead to tension between the dominant culture, often represented by professionals, and the practices of a family. How families or caregivers raise their children varies across cultures. For example, the parenting values of Western societies give importance to independence such as the ability to problem solve independently, being assertive and inquisitive. In contrast many non-Western societies value interdependent attributes such as cooperation, respect for authority and sharing. In some cultures, parenting is assumed by a single individual, usually the mother, while at the other end of the continuum a child may have multiple caregivers, and any adult can assume the caregiving role.

Different practices are particularly noticed in:

- ◆ Feeding practices
- ◆ Sleeping arrangements
- ◆ Verbal interactions
- ◆ Eye contact
- ◆ Interactions between children and adults

Ultimately, every parent wants a healthy and thriving child. As Small (1998) indicates, “no parenting style is ‘right’ and no style is ‘wrong.’ It is appropriate or inappropriate only according to the culture.” (p. 108).

Responding to Cultural Differences

The first step in addressing possible cultural differences in an early childhood is to be aware of these specific cultural differences in parenting or care. For example, professionals need to “recognize that co-sleeping is an accepted practice in most parts of the world” (Gonzalez-Mena & Bhavnagri, 2001, p. 92), and that some may consider common North American child care practices the “very opposite of good care” (Gonzalez-Mena & Bhavnagri, 2001, p. 92).

Navigating through some of these cultural differences in parenting and child care is not simple, and requires great sensitivity. Early years professionals need to openly communicate with parents, in order to build a solid rapport and trust (Okagaki & Diamond, 2000). Parents need to feel that their views have been heard and understood. Dodge, Colker, and Heroman (2002) suggest the following ways to constructively address these differences in the early childhood setting:

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- ◆ Seek to understand the family's position - Ask open-ended questions to learn what concerns the parents may have.
- ◆ Validate the family's concerns and wishes - Restate what you hear them say to be sure you understand and to let the family know you hear them.
- ◆ Explain how your program addresses the family's concern - Acknowledge that there are different points of view on any topic. If possible, share research on topics of concern to parents and evidence-informed risk factors associated with the behaviour of concern to the professional.
- ◆ Make a plan to check in with one another to assess progress.



Finally, newcomers to Canada often rely on both formal (e.g., professionals) and informal (e.g., relatives, friends) social networks to access support services (Neufeld et al., 2002). Not surprisingly, newcomers tend to start with their informal networks, where typically a relative or friend from the same ethnic background is able to make important connections for the family to needed services. In some cases, no such network is available to newcomers. In all cases, professionals need to engage in greater community outreach. Agencies need to provide access

to appropriate translation supports, and to ensure that they are offering culturally sensitive services. Professionals need to do their part to ensure that newcomer families receive the appropriate assistance, so that all children in their communities will thrive.

For more on cultural considerations go to Section 6 Supporting Parents and Professionals