Research Summary:

The Physical Development (PD) and Health (HLTH) domains assess motor development and the development of routines related to personal care, safety, and nutrition. The PD domain includes the following knowledge or skill areas: perceptual-motor skills and movement concepts, gross locomotor movement skills, gross motor manipulative skills, and fine motor manipulative skills. The HLTH domain includes the following knowledge or skills areas: safety, personal care routines, active physical play, nutrition, and knowledge of wellness.

HLTH 1: Safety

This measure highlights how a child develops an understanding of basic safety rules and consequences of unsafe behavior at home, school, and community. The existing research literature on the development of safety and injury prevention emphasizes the learning of safety rules, reasoning about safe and unsafe situations, and increasing abilities to follow safety rules in order to prevent injury. In the early preschool years, the child seeks to follow basic safety practices with adult support, but many children at this age do not consistently identify dangerous situations. Making judgments about how likely they are to be injured or harmed by their behavior or by a situation is difficult for them (Hardy, 2002; Rivara, Booth, Bergman, Rogers, & Weiss, 1991). Moreover, without adult support, children in the early preschool years do not consistently take preventive actions in such situations or follow the safety rules they know (Morrongiello, Midgett, & Shields, 2001). By the later preschool years, the child follows some basic safety practices on his or her own in familiar and novel situations, while still needing adult support. By kindergarten, the child communicates an understanding of some safety practices to others. By ages six to seven some children not only recognize unsafe situations but also identify and apply specific strategies for staying safe. These children identify at least a few effective behavioral strategies in areas such as fire safety (Morrongiello, Schwebel, Bell, Stewart, & Davis, 2012), vehicle safety (Bell, Padget, Kelley-Baker, & Rider, 2007), stranger safety (Wurtele, Saslawsky, Miller, Marrs, & Britcher, 1986), injury prevention (Liller, Noland, Rijal, Pesce, & Gonzalez, 2002), and so on. This emerging ability to identify strategies for staying safe reflects both general cognitive development as well as domain-specific learning.

HLTH 2: Personal Care Routines

This measure highlights how a child understands, responds to, and initiates personal care routines and shows increasing knowledge and skills of how and when to apply them. The research literature on the development of personal care skills emphasizes that children’s abilities to perform self-help tasks depend on their gaining the fine motor skills to do so as well as their growing abilities to reason about why personal care tasks are important for preventing illness. In the early preschool years, the child can carry out some parts of personal care routines with adult supervision. By the later preschool years, the child initiates and carries out more steps of familiar personal care routines. By kindergarten, the child initiates and completes personal care routines on his or her own. By ages six to seven some children not only recognize that personal care routines are intended to promote good
health, but also that these routines contribute to health through specific mechanisms. Although children at this age do not always carry out routines they have already mastered, areas in which detailed understanding of personal care routines are beginning to emerge include preparation for sun exposure, oral hygiene, hand washing, and so on (Buller et al., 2006; Eiser, Patterson, & Eister, 1983). Both general cognitive development and domain-specific learning contribute to increasing knowledge of the mechanisms underlying these routines (Eiser, 1985; Siegal & Peterson, 1998). However, even at an early age children can benefit from instruction by adults (e.g., Niffenegger, 1997; Rosen et al., 2006; Wennhall et al., 2005).

**HLTH 3: Active Physical Play**

This measure highlights how a child engages in physical activities with increasing endurance and intensity. Physical activity habits are established early in life and can persist over time (AAP, APHA, & NRC, 2010). During the preschool and early school ages, general movement activities as well as biological maturation help develop children’s movement patterns and skills. As basic movements become established and skills improve, health, fitness, and behavioral components of physical activities increase in importance and also allow children to expand their creative and social skills (Burdette & Whitaker, 2005; Strong et al., 2005). A child who becomes skilled and knowledgeable in physical education is more likely to become a healthy adult who is motivated to remain healthy and physically active throughout his or her life (California Department of Education, 2009). In the early preschool years, a child engages in active physical play for short periods of time (Bailey et al., 1995). In the later preschool years, the child can engage regularly in active physical activities or play for more sustained periods of time. By kindergarten, the child seeks to engage in active physical activities or play with increased intensity and duration. By the age of six or seven, the child participates in vigorous physical activity on his or her own and with others, increasing endurance while refining the coordination of motor skills, and communicates explanations of health benefits gained from physical activity (Siegal & Peterson, 1998).

**HLTH 4: Nutrition**

This measure highlights how a child is able to demonstrate increasing knowledge about nutrition and healthful food choices. The child in the early preschool years recognizes or identifies a variety of foods. In the later preschool years, the child shows some awareness that some foods are more healthful than others (Anliker et al., 1990). By kindergarten, the child communicates simple explanations about the healthfulness of different food choices and shows more differentiation among types of foods. By ages six to seven some children not only appreciate the healthfulness of different foods but also the necessity of basing one’s diet on more than one kind of food (Gripshover & Markman, 2013; Wellman & Johnson, 1982) as well as the specific nutritional importance of eating different kinds of meals (Raman, 2011). This emerging but still rudimentary appreciation of the need for a balanced diet reflects general cognitive development, as well as an increasing understanding of differences between food categories (Michela & Contento, 1984) and an appreciation of the benefits derived from different types of foods.
HLTH 5: Knowledge of Wellness

This measure highlights the progression of how children show and communicate increasing knowledge of the body and ways to take care of it. In the early preschool years, the child demonstrates basic understanding about the body’s need for care; in the later preschool years the child also discusses actions that help a person get better when sick or injured and some actions that make the body healthy. By kindergarten age, children communicate basic understanding about internal body parts and their functions and demonstrate curiosity about how behaviors make the body healthy. By ages six to seven some children have acquired detailed knowledge about the causes of health and illness, and express their understanding in the context of specific body parts and functions (Siegal & Peterson, 1998). However, children’s understanding of health and wellness is still relatively concrete rather than reflecting an abstract conception (Koopman et al., 2004; Kalnins & Love, 1982; Siegal & Peterson, 1998). Children’s growing knowledge pertains to behaviors that promote health as well as those that help one avoid illness and injury (Banks, 1990; Cartland & Ruch-Ross, 2006; Myant & Williams, 2005). Both general cognitive development and domain-specific learning contribute to this increasingly differentiated understanding of health and illness.


**Additional References:**

**Health (HLTH)**

