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Research Summary: Health (HLTH) Domain in the DRDP-K (2015) and KIDS (2015) Kindergarten Assessment Instruments

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



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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.



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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.



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References: Health (HLTH)

- AAP (American Academy of Pediatrics), APHA (American Public Health Association), & NRC (National Resource Center for Health and Safety in Child Care and Early Education). (2010). *Preventing childhood obesity in early care and education programs: Selected standards from Caring for Our Children: National Health and Safety Performance Standards; Guidelines for Early Care and Education Programs, 3rd Edition*. Washington, DC: Department of Health and Human Services, Health Resources and Services Administration, Maternal and Child Health Bureau. Retrieved from: http://www.cdc.gov/obesity/downloads/Early-Care-and-Education-Policy-Review-FINAL_web508.pdf
- Anliker, J. A., Laus, M. J., Samonds, K. W., & Beal, V. A. (1990). Parental messages and the nutrition awareness of preschool children, *Journal of Nutrition Education*, 22(1), 24–29.
- Bailey, R. C., Olson, J., Pepper, S. L., Porszasz, J., Barstow, T. J., & Cooper, D. M. (1995). The level and tempo of children's physical activities: An observational study. *Medicine and Science in Sports and Exercise*, 27(7), 1033–1041.
- Banks, E. (1990). Concepts of health and sickness of preschool and school-aged children. *Child Health Care*, 19, 43–48.
- Bell, M. L., Padget, A., Kelley-Baker, T., & Rider, R. (2006). Can first and second grade students benefit from an alcohol prevention program? *Journal of Child and Adolescent Substance Abuse*, 16, 89–107.
- Buller, D. B., Taylor, A. M., Buller, M. K., Powers, P. J., Maloy, J. A., & Beach, B. H. (2006). Evaluation of the Sunny Days, Healthy Ways sun safety curriculum for children in kindergarten through fifth grade. *Pediatric Dermatology*, 23, 321–329.
- Burdette, H. L., & Whitaker, R.C. (2005). Resurrecting free play in young children: Looking beyond fitness and fatness to attention, affiliation, and affect. *Archives of Pediatric and Adolescent Medicine*, 159(1), 46–50.
- California Department of Education. (2009). *Physical education framework for California public schools: Kindergarten through grade twelve*. Sacramento, CA: Author.
- Cartland, J. & Ruch-Ross, H. S. (2006). Health behaviors of school-age children: Evidence from one large city. *Journal of School Health*, 76, 175–180.
- Eiser, C. (1985). Changes in the understanding of illness as the child grows. *Archives of Disease in Childhood*, 60, 489–492.
- Eiser, C., Patterson, D., & Eiser, J. R. (1983). Children's knowledge of health and illness: Implications for health education. *Child Care, Health, and Development*, 9, 285–292.



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- Gripshover, S. J. & Markman, E. M. (2013). Teaching young children a theory of nutrition: Conceptual change and the potential for increased vegetable consumption. *Psychological Science, 24*, 1541–1553.
- Hardy, M. S. (2002). Teaching firearm safety to children: Failure of a HEALTH 98 | References and Source Materials Program. *Journal of Developmental Behavioral Pediatrics, 23*(2), 71–76.
- Kalnins, I., & Love, R. (1982). Children's concepts of health and illness—and implications for health education: An overview. *Health Education and Behavior, 9*(2–3), 8–12.
- Koopman, H. M., Baars, R. M., Chaplin, J., & Zwinderman, K. H. (2004). Illness through the eyes of the child: The development of children's understanding of the causes of illness. *Patient Education and Counseling, 55*(3), 363–370.
- Liller, K. D., Noland, V., Rijal, P., Pesce, K., & Gonzalez, R. (2002). Development and evaluation of the Kids Count Farm Safety Lesson. *Journal of Agricultural Safety and Health, 8*, 411–421.
- Michela, J. L., & Contento, I. R. (1984). Spontaneous classification of foods by elementary school-aged children. *Health Education Quarterly, 11*, 57–76.
- Morrongiello, B. A., Midgett, C., & Shields, R. (2001). Don't run with scissors: Young children's knowledge of home safety rules. *Journal of Pediatric Psychology, 26*(29), 105–115.
- Morrongiello, B. A., Schwebel, D. C., Bell, M., Stewart, J., & Davis, A. L. (2012). An evaluation of The Great Escape: Can an interactive computer game improve young children's fire safety knowledge and behaviors? *Health Psychology, 31*, 496–502.
- Myant, K. A. & Williams, J. M. (2005). Children's concepts of health and illness: Understanding of contagious illnesses, non-contagious illnesses and injuries. *Journal of Health Psychology, 10*, 805–819.
- National Association for Sport and Physical Education (NASPE). (2004). *Physical activity for children: A statement of guidelines for children ages 5–12* (2nd ed.). Reston, VA: National Association for Sport and Physical Education.
- Niffenegger, J. P. (1997). Proper handwashing promotes wellness in child care. *Journal of Pediatric Health Care, 11*(1), 26–31.
- Raman, L. (2011). Why do we eat? Children's and adults' understanding of why we eat different meals. *The Journal of Genetic Psychology, 172*, 401–413.
- Rivara, F. P., Booth, C. L., Bergman, A. B., Rogers, L. W., & Weiss, J. (1991). Prevention of pedestrian injuries to children: Effectiveness of a school training program. *Pediatrics, 88*(4), 770–775.



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- Rosen, L., Manor, O., Engelhard, D., Brody, D., Rosen, B., Peleg, H., . . . Zucker, D. (2006). Can a handwashing intervention make a difference? Results from a randomized controlled trial in Jerusalem preschools. *Preventative Medicine, 42*, 27–32.
- Siegal, M. & Peterson, C. (Eds.) (1998). *Children's understanding of biology and health*. Cambridge, United Kingdom: Cambridge University Press.
- Strong, W. B., Malina, R. M., Blimkie, C. J., Daniels, S. R., Dishman, R. K., Gutin, B., . . . Trudeau, F. (2005). Evidence based physical activity for school-age youth. *The Journal of Pediatrics, 146*(6), 732–737.
- Wellman, H. M., & Johnson, C. N. (1982). Children's understanding of food and its functions: A preliminary study of the development of concepts of nutrition. *Journal of Applied Developmental Psychology, 3*, 135–148.
- Wennhall, I., Martensson, E. M., Sjunnesson, I., Matsson, L., Schroeder, U., & Twetman, S. (2005). Caries-preventive effect of an oral health program for preschool children in a low socio-economic, multicultural area in Sweden: Results after one year. *Acta Odontologica Scandinavica, 63*(3), 163–167.
- Wurtele, S. K., Saslawsky, D. A., Miller, C. L., Marrs, S. R., & Britcher, J. C. (1986). Teaching personal safety skills for potential prevention of sexual abuse: A comparison of treatments. *Journal of Consulting Clinical Psychology, 54*, 688–692.

Additional References: Health (HLTH)

- California Department of Education. (2010). *Preschool learning foundations* (Vol. 2). Sacramento, CA: Author.
- Lee, V., Srikantharajah, J., & Mikkelsen, L. (2010). *Fostering physical activity for children and youth: Opportunities for a lifetime of health*. Oakland, CA: Policy Link, and Prevention Institute. Retrieved from http://www.convergencepartnership.org/atf/cf/%7B245A9B44-6DED-4ABD-A392-AE583809E350%7D/Convergence_Physical%20Activity_final.pdf
- Pate, R. R., Pratt, M., Blair, S N., Haskell, W. L., Macera, C. A., Bouchard, C., . . . King, A. C. (1995). Physical activity and public health. A recommendation from the Centers for Disease Control and Prevention and the American College of Sports Medicine. *Journal of the American Medical Association (JAMA), 273*(1995), 402–407.