Children Care & Early Education
Research Connections

A partnership of the National Center for Children in Poverty, the Inter-university Consortium for Political and Social Research, the Child Care Bureau, and the Office of Planning, Research, and Evaluation

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Child Care Health & Safety
A Key Topic Resource List

May 2010

Research Connections conducted a comprehensive search of its collection for resources focused on child care health and safety. This Key Topic Resource List includes an overview and listing of selected resources from the literature.

Resources of various types— including reports and papers, fact sheets and briefs, summaries, and reviews are included. Selection criteria included policy relevance and relatively recent publication (from the years 2000 to 2009).*

Based on the search results, resources were grouped into the following categories:

- Health and safety standards, assessments, and strategies
- Child Care environments
  - Injuries
  - Infectious disease/ Illness
  - Immunizations
  - Management of illness
  - Hygiene and sanitation practices
  - Infant Sleep practices
- Emergency Preparedness

Within each category, resources are organized according to publisher type and publication date. Research Connections’ one-sentence descriptions are included for each resource.
Overview:

With the increase of young children in nonparental care, researchers and policymakers have been interested in understanding the link between the quality of early care and education settings and child outcomes. Children’s health and safety in child care is an essential foundation of quality and children’s optimal development. States are currently responsible for developing health and safety requirements for child care providers who are subject to regulation and for monitoring provider’s compliance with these requirements.

Much research has been devoted to child care health and safety and covers a broad spectrum: from the occurrence and prevention of injury and infection in child care, to healthy practices within child care settings, state health and safety standards and licensing regulations, and the coordination of health and early childhood services.*

Research questions include:

- Do children in nonparental care experience injuries and illness at a higher rate than those cared for in their homes? Do these rates vary by attendance, child’s age, health insurance coverage, or parental characteristics?
- What are the rates, types, and extent of injuries reported in child care centers?
- What factors contribute to injury, illness, and developmental impairment (related to building safety) in child care settings?
- What prevention efforts are effective in minimizing the risks of injury, the spread of illness, and developmental impairment?

*Separate Key Topic Resource Lists on Child Care Licensing and Regulation and Linking Health and Child Care and Early Education Services (which includes resources on health consultants) are available at: http://researchconnections.org/location/11623 and http://researchconnections.org/location/12627.

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Health and Safety Standards, Assessments, and Strategies

Government


Final findings from a two-year implementation evaluation of the Head Start Oral Health Initiative, which provided grants to Head Start programs to design and implement oral health promotion strategies, based on interviews with program directors, a web-based record-keeping system for grantees, and site visits.


A report by the Government Accountability Office to House Representative Sander M Levin regarding the regulation of child care health and safety requirements in states supported by the Child Care and Development Fund (CCDF).


A description of activities and practices indicating the desired minimum level of physical development and safe behaviors possessed by prekindergarten children entering Missouri schools.

Journals

Alkon, Abbey; To, Kim; Mackie, Joanna F.; Wolff, Mimi; Bernzweig, Jane (2010). Health and safety needs in early care and education programs: What do directors, child health records, and national standards tell us? Public Health Nursing, 27(1), 3-16

An examination of common and unique health and safety needs and concerns identified by director interviews, child record reviews, and observations of National Health and Safety (NHS) standards in licensed child care centers and family child care homes in 5 counties in California that are part of the Child Care Health Linkages Project.


An account of the development and testing of the California Childcare Health Program (CCHP) Health and Safety Checklist, an observational instrument used to assess compliance with national health and safety standards in child care and early education environments.
An examination of best practice methods for promoting health practices in low income child care settings through six focus groups of parents with children attending child care centers and family child care homes and directors of family child care centers

A description of the development and revision of a comprehensive early childhood health assessment form for all children in early care and education programs

A study exploring the attitudes toward, barriers to, and strategies for incorporating health promotion activities in child care settings, using surveys of directors, health consultants, and parents from licensed child care centers in Boston

An overview of issues related to the health and safety of children in child care environments

Mygind, Ole; Tove, Ronne; Soe, Anne-Lise; Wachmann, Carsten Henrik; Ricks, Philip (2003). **Comparative intervention study among Danish daycare children: The effect on illness of time spent outdoors** Scandinavian Journal of Public Health, 31(6), 439-443
An examination of the correlation between the amount of time spent outdoors and the occurrence of illnesses among 326 children from Storstroems County

**Universities & Research Organizations**

A presentation of an experimental instrument, adapted from the Health Belief Model, designed to identify and assess the beliefs and perceptions of child care workers about using a Hazard Analysis and Critical Control Points-based food safety program at child care centers and intended to address the relationship between workers’ perceptions and behaviors regarding food safety practices and quality of hygiene and safety at child care centers

Cole, Patricia. (2000). **Comparison of Indiana’s child care licensing and registration requirements to the National Health and Safety Performance Standards: Guidelines for out-of-home child care programs** Bloomington: Indiana Institute on Disability and Community
A report of a collaborative project between agencies and organizations involved in child care issues that affect the health, safety and age-appropriateness of out-of-home child care environments for all children in Indiana
Other

Washington, Valora; Reed, Mary L.; Cowden, Martha M. (2007). *Cornerstones: Strengthening the foundation of health and safety in early education and care* Cambridge, MA: Schott Fellowship in Early Care and Education

An overview of national health and safety standards for child care and early education and of health and safety practices in child care and early education in Massachusetts, with a discussion of issues and recommendations for ensuring the health and safety of children in child care and early education


A guide to the prevention of the spread of infectious diseases commonly found in child care settings


A study of the monitoring and oversight of center based and family child care in New York City, focusing on licensing, staffing, facilities, health, and safety, with quality enhancement recommendations for city and state agencies


A comprehensive study of national health and safety standards for children enrolled in out-of-home settings with child care providers

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Child Care Environments

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Journals


An observational examination of preschool children's potential exposure to pentachlorophenol, bisphenol-A, and nonylphenol in both their home environments as well as child care settings

Tulve, Nicolle S.; Jones, Paul A.; Nishioka, Marcia G.; Fortmann, Roy C.; Croghan, Carry W.; Zhou, Joey Y.; Fraser, Alex; Cave, Carol; Friedman, Warren. (2006). Pesticide measurements from the First National Environmental Health Survey of Child Care Centers using a multi-residue GC/MS analysis method Environmental Science & Technology, 40(20), 6269-6274

A study of the levels of pesticide residue present on the floors and hard surfaces of 168 child care centers across the United States
A study of the associations between respiratory health and dampness problems and other building characteristics in 175 inspected day care center buildings, based on a survey of 942 children between the ages of 3 and 5

**Injuries**

**Government**

A multistate study of the relationship between child care licensing requirements and risks of care-related injuries to children, with recommendations for strengthening licensing rules in Washington State

**Journals**

An examination of correlations between infants’ and toddlers’ medically attended injuries and measures of child, maternal, and family characteristics, including choice of children’s primary caregivers within families, based on data from a longitudinal study of 3449 infants from 15 cities

An investigation of the impact of quantity and quality of child care programs on young children's risk for unintentional injury using data from the National Institute of Child Health and Human Development Study of Early Child Care

An examination of rate, type and extent of injuries in centers and the infection control practices employed by staff, based on data from 131 children ages 6 weeks to 7 years

An examination of rates and patterns of absences from child care centers and family day care homes, for illness and other reasons, based on data from 11 child care sites

Alkon, Abbey; Genevro J; Kaiser P; Tschann J; Chesney M; Boyce, WT. (2000). *Injuries in child care centers: Gender-environment interactions* Injury Prevention, 6(3), 214-218
A longitudinal investigation into the role of children’s age, gender, and child care environment in predicting injuries, based on a sample of 360 preschool children aged 2- to 6-years old in four urban child care centers
Universities and Research Organizations

A paper on the impact of selected child care regulations on the risk of injury for children in formal child care settings using data from the National Longitudinal Survey of Youth (NLSY) and the Vital Statistics Detail Mortality (VSDM).

Infectious Disease/ Illness

Journals

Kamper-Jorgensen, Mads; Wohlfahrt, Jan; Simonsen, Jacob; Gronbaek, Morten; Stabell Benn, Christine. (2006). Population-based study of the impact of childcare attendance on hospitalizations for acute respiratory infections Pediatrics, 118(4), 1439-1446
An examination of the effects of child care attendance on Danish young children’s hospitalizations for acute respiratory infections as compared with the hospitalization of young children who did not attend child care

Kiang, Karen M.; Ogunmodede, Folashade; Juni, Billie A.; Boxrud, David J.; Glennen, Anita; Bartkus, Joanne M.; Cebelinski, Elizabeth A.; Harriman, Kathleen; Koop, Steven; Faville, Ralph; Danila, Richard; Lynfield, Ruth. (2005). Outbreak of osteomyelitis/septic arthritis caused by Kingella kingae among child care center attendees Pediatrics, 116(2), 206-213
A study describing three cases of skeletal infection among toddlers attending a suburban Minnesota child care center

A study of the rate of infectious diseases (respiratory and diarrhea) reported in children who attended center based child care compared with the reported rate in children who did not attend out of home child care

Slack-Smith, Linda M.; Read, Anne W.; Stanley, Fiona J. (2004). Absence from childcare for respiratory illness Child: Care, Health and Development, 30(1), 29-37
A population-based study examining Australian children's absences from two types of child care (center based and family child care homes) due to respiratory illness and an investigation into factors related to the absences

A study of predictors of the parental seeking of acute care and antibiotics for children with upper respiratory tract infections (URIs) who attend child care, based on surveys of 211 parents and staff from 36 child care centers
NICHD Early Child Care Research Network. (2003). *Child care and common communicable illnesses in children aged 37 to 54 months* Archives of Pediatrics & Adolescent Medicine, 157(2), 196-200
A study of the relationship between experience in child care and common communicable illnesses in children aged 37 to 54 months

Pettigrew, Melinda M.; Khodae M; Gillespie B; Schwartz K; Bobo, JK; Foxman B. (2003). *Duration of breastfeeding, daycare, and physician visits among infants 6 months and younger* Annals of Epidemiology, 13(6), 431-435
A study of the association between duration of breastfeeding and child illness, and a study of the influence of family size and child care attendance on the benefits of breastfeeding, in a population of 674 mothers and infants from two metropolitan areas

Ball, Thomas M.; Holberg, Catherine J.; Aldous, Michael B.; Martinez, Fernando D.; Wright, Anne L. (2002). *Influence of attendance at day care on the common cold from birth through 13 years of age* Archives of Pediatrics & Adolescent Medicine, 56(2), 121-126
An examination of the effects of child care attendance on the occurrence of the common cold in children from birth through age 13

An overview of the disease-specific recommendations of the Revised Standards for Health and Safety in Out-of-Home Child Care

Slack-Smith, Linda M.; Read, Anne W.; Stanley, Fiona J. (2002). *Experience of respiratory and allergic illness in children attending childcare* Child: Care, Health and Development, 28(2), 171-177
A study of respiratory problems and allergies in Australian children who attended childcare, comparing sickness rate for children who attended center based care with the rate for children who attended childcare in family homes

Ackerman, Stacey J.; Duff, Steven B. (2001). *Economic impact of an infection control education program in a specialized preschool setting* Pediatrics, 108(6), e102
An assessment the economic impact, from a societal perspective, of a multidimensional infection control education program in a preschool for children with Down syndrome

A literature review of studies inquiring about the risk to center-based childcare workers of contracting an infectious disease

A study of the relationship between childcare attendance during infancy and diagnosis of respiratory tract infection
McCutcheon, Helen; Fitzgerald, Mary. (2001). *The public health problem of acute respiratory illness in childcare* Journal of Clinical Nursing, 10(3), 305-310
*An overview of the literature on the association between acute respiratory illness and child care attendance*

*A comparison of studies evaluating interventions to prevent and control the spread of infection in child care environments*

NICHD Early Child Care Research Network. (2001). *Child care and common communicable illnesses: Results from the National Institute of Child Health and Human Development Study of Early Child Care* Archives of Pediatrics & Adolescent Medicine, 155(4), 481-488
*An examination of the relationship between experiences in child care and communicable illnesses (gastrointestinal tract illness, upper respiratory tract infection, and ear infections or otitis media) through a child's first 3 years of life, and an investigation of the relationship between the increased frequency of these illnesses and language development, school readiness, and behavior problems*

*A study assessing the role of Arizona child care centers in a community-wide outbreak of hepatitis A*

Carabin, Helene; Gyorkos, Theresa W.; Soto, Julio C.; Joseph, Lawrence; Collet, Jean-Paul. (2000). *Comparison between two common methods for reporting cold and diarrhea symptoms for children in daycare centre research* Child: Care, Health and Development, 26(6), 471-487
*A study comparing the rate that Canadian child care center staff reported toddlers' cold and diarrhea symptoms to the rate of parent reports*

*A study of the relationship between children’s experience in nonmaternal care and rates of respiratory tract, gastrointestinal tract, and ear infections during the first 3 years of life*

**Immunizations**

**Journals**

*Results of surveys given to staff in 5 child care centers on their views of the importance of immunization for young children, especially influenza immunization, before and after presentations of an educational program at school staff meetings*

A compilation of vaccination rates of children in early years settings, based on school-based surveys from 64 programs in the fifty states, eight territories, five cities, and the District of Columbia in the United States

A study of the effectiveness of vaccinating child care children on reducing influenza-related illnesses among their household contacts in ten child care centers serving US Navy personnel in San Diego, California

**Management of illness**

**Government**

A study of the type of service Head Start programs provide for children with asthma and their families

**Journals**

An overview of the Early Childhood Asthma Project, including a description of identifying asthma cases in a Head Start population and effects of a program implemented to help parents manage their children's asthma more effectively

A survey-based examination of parents of young children, pediatricians, and child care providers' knowledge of and understanding of the guidelines published by the American Academy of Pediatrics detailing exclusion of ill children from child care programs
Heschel, Rhonda T.; Crowley, Angela A.; Cohen, Sally S. (2005). State policies regarding nursing delegation and medication administration in child care settings: A case study Policy, Politics & Nursing Practice, 6(2), 86-98
A case study of the creation of statues and regulation for the medication administration training of child care providers in the state of Connecticut

Walders, Natalie; Dickstein, Susan; McQuaid, Elizabeth. (2004). Asthma knowledge, awareness, and training among Head Start and Early Head Start staff Journal of School Health, 74(1), 32-34
A survey of Head Start (HS) and Early Head Start (EHS) staff evaluating the current efficacy of asthma management in early childhood settings

A study of predictors of the parental seeking of acute care and antibiotics for children with upper respiratory tract infections (URIs) who attend child care, based on surveys of 211 parents and staff from 36 child care centers

Thrane, Nana; Olesen, Charlotte; Mortensen, Jens Tolboll; Sondergaard, Charlotte; Schonheyder, Henrik Carl; Sorensen, Henrik Toft. (2001). Influence of day care attendance on the use of systemic antibiotics in 0- to 2-year-old children. Pediatrics, 107(5), 76-81
A study of the relation between Danish children's attendance at different public child care facilities and their use of prescribed antibiotics

A study examining the effect of infection control intervention by child care workers on the frequency of upper respiratory infections in infants, based on a sample of 558 children in 23 child care centers in the Australian Capital Territory

A study on the effects of infection control methods on the frequency and transmission of gastrointestinal infections, based on a sample of 544 children observed for 9 months at a child care center in Australia

Hygiene and sanitation practices

Journals

A study of the prevalence of various health and cleanliness-related activities in the preschool classroom, based on a survey of 112 preschool teachers
An examination of the impact of the installation of equipment for diaper-changing, hand-washing, and food preparation that is specifically designed to reduce the transmission of infectious agents on the rate of diarrheal illness among children and their teachers in child care centers.

Kovari, Helena; Pienihakkinen, Kaisu; Pentti, Alanen. (2003). **Use of xylitol chewing gum in daycare centers: A follow-up study in Savonlinna, Finland** Acta Odontologica Scandinavica, 61(6), 367-380
A study of the effects of the use of xylitol chewing gum instead of toothbrushing in the prevention of tooth decay among children in child care centers in Savonlinna, Finland.

Williams, L. Alison; DeVries, Susan M. (2000). **Creating sustainable nursing interventions: An innovative health promotion strategy for handwashing in child care centres** Neonatal, Paediatric and Child Health Nursing, 3(4), 17-20
A description of an evidence-based, cost effective pilot program using community child health nursing interventions to promote handwashing among child care center staff.

**Universities & Research Organizations**

An assessment of the effects of using specific sanitizing products and cleaning protocols in child care centers on the incidences of lower respiratory infections, diarrheal illness, antibiotic use, and medical visits among children attending the centers, and on the levels and antibiotic resistance of indicator bacteria in those centers, based on data gathered in 12 child care centers in the Tucson, Arizona metropolitan area.

**Infant Sleep practices**

**Journals**

Moon, Rachel Y.; Kotch, Lauren; Aird, Laura. (2006). **State child care regulations regarding infant sleep environment since the Healthy Child Care America-Back to Sleep campaign** Pediatrics, 118(1), 73-83
An examination of the effectiveness of the Healthy Child Care America-Back to Sleep campaign in terms of how licensed child care centers and family child care homes have adapted state regulations for the infant sleep environments.

A study attempting to determine whether an educational program for child care providers regarding sudden infant death syndrome (SIDS) and safe sleep environment is effective in 1) providing basic information and understanding regarding SIDS risk reduction practices, 2) changing child care provider behavior, and 3) promoting development of written sleep position policies.
An investigation into the influence of the infant sleeping recommendation by the American Academy of Pediatrics (AAP) on the sleeping policies of child care centers, based on a survey of 172 child care centers in metropolitan Washington, D.C.

An examination of sudden infant death syndrome (SIDS) in child care settings, focusing on the factors of children’s sleep position, age, race, and parental education

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Emergency Preparedness

Indicators of child care and other early childhood services' vulnerability to and preparedness for risks posed by disasters such as hurricanes, earthquakes, tornadoes, and volcanos and emergency preparedness in Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, Missouri, North Carolina, South Carolina, Tennessee, Texas

Three recommendations for enhancing the emergency preparedness of child care and other early childhood service providers in Mississippi

Proceedings from a forum on the effects of Hurricanes Katrina and Rita on child care and early education services in the affected areas and how to adequately prepare for future emergencies

A summary of a meeting convened to discuss the place of child care in disaster preparedness and recovery efforts and policies

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An examination of global efforts to prioritize and improve early childhood care and education in the light of the devastation or disruption of children’s lives and environments caused by international wars, civil political conflicts, natural disasters and other emergency/crisis situations

To suggest additions to this Key Topic Resource List, please email us at contact@researchconnections.org.

The full results came from searches on— health and safety, injury, illness, asthma, immunization, hygiene, sleep, and emergency.