Mitigating Homeless Children’s Risk for Developmental Delay

Children are often called a country’s future. In America today, increasing numbers of homeless children face the uncertainty, hunger, chronic illness, and potential trauma that often accompany life without stable housing. While the homelessness of any child is unconscionable, for those from birth to five years of age it is an event that may have especially long-lasting effects. The following articles explain homeless children’s high risk for developmental delay and discuss the importance of assessment and early intervention as well as how to get help for potentially contributing factors such as middle ear infections, asthma, mental illness, and severe behavioral problems.

In 2005–2006, one in 50 children were living in families without a home—a group the National Center on Family Homelessness calls “America’s Youngest Outcasts.” These children did not have a regular place to live or stayed in a shelter at night. Of the 1.6 million homeless children that year, approximately 650,000 (42%) were under age six; another 700,000 were school-aged and enrolled in grades K through 8.

Between birth and five years, most children learn to roll over, sit up, crawl, stand, walk, and run. Day and night sleep schedules become more predictable. They begin to talk, rhyme, sing, joke, draw, write, and learn to use the toilet. The reality for a homeless baby or toddler may be a world in which, on good days, its single, teenaged mother is completely absorbed in finding food for the day and lodging for the night. On not-so-good days, she may be suffering from untreated depression or substance use, which is often symptomatic of post-traumatic stress. Imagine for a moment: When does that baby have a time to stretch and coo? Feel full, dry, and warm? Wiggle its toes in a ray of sunshine?

Bella Christodoulou, MSW, LCSW, confirms that such harsh conditions exist. At Tulane Drop-In Health Services in New Orleans, she works with teens with small children and starts out by assessing how they interact with their babies. “Clinicians working with homeless youth need to be aware that teens mean well. They don’t want their children to grow up to be like them, but they have their own unresolved problems and often lack resources to carry through on their good intentions. We offer parenting classes to help improve interactions and help teen parents understand that the baby is not a little grownup.”

Uncertain and chaotic homeless environments place children at increased risk for developmental delay across the range of domains: cognitive, speech, motor, and personal-social. While each child is unique and will reach developmental milestones at different times, those who live in highly stressful situations have limited opportunities to explore, learn, and grow. Homeless children are subject to multiple risks:3,4

- Single-parent households (85% in families headed by single mothers)
- Family mobility imposed by night-time only shelter rules
- Separation from one or both parents; increased risk of placement in foster care
- Substandard or overcrowded living facilities (shelters, multiple family households)
- Lack of cooking facilities in shelters, food insecurity (increased risk for malnutrition)
- Primary caregiver is not a parent; increased risk for abuse or neglect
- High prevalence of depression among homeless mothers
- Stress induced by poverty, mobility, trauma, discrimination, parental substance use, chronic illness

Psychosocial responses to multiple stressors quadruple the risk of homeless mothers and their children for adverse outcomes, including low birth weight, infant mortality, injuries and hospitalizations, malnutrition, and behavioral health problems.3,5

“Development delay is the condition in which a child is not developing and/or achieving skills according to the expected time frame.”

—2006 American Academy of Pediatrics Policy Statement

WHAT IS DEVELOPMENTAL DELAY? The ages and stages at which children achieve developmental milestones depend on individual and sociocultural factors. Developmental delay is defined as low achievement of milestone tasks related to communication, learning, fine and gross motor skills, and personal-social interaction, compared to children of the same chronological age. Delayed development may limit a child’s ability to speak or understand, walk or run, manipulate objects, or respond to others and the world appropriately.
According to the American Academy of Pediatrics (AAP), developmental delay is synonymous with the terms disordered development and developmental abnormalities, while developmental disorder and developmental disability refer to a childhood mental or physical impairment or combination of such impairments resulting in substantial functional limitations in major life activities.

Due to the instability of their daily lives, homeless children are four times more likely than other children to have developmental delay.1
- Over 75% under five years of age have at least one major delay, most commonly in speech.
- Over 44% have two delays (second most common is lack of fine motor control).
- Over 38% exhibit emotional and/or behavioral problems (short attention span, sleep disorder, withdrawal, aggression, inappropriate interaction with adults).

Bernie Creaven, MN, RN, Community Health Nurse Program coordinator at Carolyn Downs Family Medical Center in Seattle, chairs the Health Care for the Homeless (HCH) Clinicians’ Network Pediatric Work Group. “HCH practitioners witness how children are affected by homelessness as a result of insecure housing, poverty, and, for some, exposure to trauma, mental illness, and substance-related disorders. In addition, under-identification of developmental delay in homeless children increases their vulnerability. Evidence suggests that early intervention is associated with long-term benefits. Clinicians are in a unique position to build trusting relationships with families, identify developmental delays, provide a critical source of education, facilitate appropriate care, and advocate for them as they navigate the system. Although children are very resilient, they need appropriate care to be as successful as possible in their lives.”

HOW DOES HOMELESSNESS AFFECT DEVELOPMENT?

Homeless children must often adjust to a variety of unstable living situations: doubled up with relatives or friends; temporary residence in emergency shelters (some dedicated to families with stable room assignments, others available for only one night); hotels, motels, abandoned buildings, cars or tents; or living unsheltered on the streets. Many researchers report significant relationships between the experience of homelessness, higher incidence of childhood illness, and developmental delay. These problems are demonstrably greater for children who are homeless than for stably housed children living in poverty.1,6

A 2004 study in New York City reported that 30% of homeless children between the ages of 12 months and 19 years had developmental and/or psychiatric problems:1
- **Infants** (birth to 1 year): 15% demonstrated developmental problems; 33% diagnosed with failure to thrive
- **Toddlers** (under 3 years): 19% eligible for the Early Intervention Program based on developmental delay
- **Preschoolers** (3 to 4 years): 41% demonstrated developmental delays (DD); 52% diagnosed with DD, 27% adjustment reaction, 15% attention deficit hyperactivity disorder (ADHD), 6% post-traumatic stress disorder (PTSD)
- **Primary School-Age** (5 to 7 years): 34% demonstrated a developmental or psychiatric problem; 17% diagnosed with DD or a learning problem, 47% adjustment reaction, 25% ADHD, 11% PTSD
- **Teens** (12 to 19 years): 24% diagnosed with a psychiatric disorder, 29% adjustment reaction, 24% PTSD, 18% ADHD

These statistics, based on a retrospective random sample (n=522) of pediatric patients seen by the New York Children’s Health Project during 2004, clearly link developmental delay with ADHD. Studies in Pittsburgh and Rochester, Minnesota, show the association of developmental delay with later onset of ADHD.2,5 A study by Froehlich and colleagues analyzed prevalence, recognition, and treatment of ADHD in a national sample of U.S. children and found that the poorest children had increased likelihood of meeting DSM-IV criteria for ADHD and higher prevalence of the hyperactive-impulsive type (ADHD-HI).6 Associated risk factors included premature birth and exposure to toxic substances in utero or during childhood as well as high heritability.

Susan Kline, MN, ARNP, a pediatric nurse practitioner at the Seattle and King County Department of Public Health, notes: “The best parental intentions can inadvertently result in developmental delay. The environments in which homeless children live combined with the efforts of parents to keep children safe can create situations that do not foster healthy development. For example, keeping an infant or toddler in a stroller allows parents to control dangerous environmental exposures—dirty floors or dangerous objects. But prolonged stroller-time does not provide the child much opportunity to exercise developing muscles that are necessary to progress from rolling to sitting to walking. And the isolation of a stroller does not foster interactions with adults that are necessary to develop language.”

Majnemer and Barr have studied the relationship between sleep position and early motor development.10 Children using the preferred supine (on the back) sleeping position—recommended by AAP to avoid sudden infant death syndrome—demonstrated significant motor delays at 4, 6, and 15 months when compared to children who slept in the prone (lying face down) position. Awareness of this predictor emphasizes the importance of finding ways to give infants more opportunities to explore their environment in the prone position (more tummy time) rather than placing them in the supine (or semi-recumbent) position during all daytime activities.
Assessment of Developmental Delay

While special emphasis is given here to the importance of developmental assessment from birth to three years of age, it must be acknowledged that assessment throughout early childhood is essential, though complicated by the dynamic nature of child development. The AAP identifies assessment for developmental disorders as integral to primary care and stresses the importance of a medical home to assure continuity of care. Detection of delayed or disordered development can lead to the diagnosis or identification of elevated risk for particular medical or behavioral conditions. Preventive care begins with developmental surveillance by a health care professional that is well documented over time. Each subsequent visit provides an opportunity to detect developmental problems. If risk for developmental delay is demonstrated, a standardized screening tool can be used to gather more information about a potential problem or to ensure that development is within normal parameters. When screening results suggest a developmental problem, referral to a practitioner with expertise in pediatric care is warranted for developmental and medical evaluation as well as early intervention.6

“In our homeless health care clinic at the Young Children’s Health Center in Albuquerque, a newborn may be seen as early as one week after birth for its first well-child visit,” says Rachel Rodriguez Marzec, MS, FNP, PMHNP. “Whether at one week or one month, it is important to screen for developmental delay beginning at the first visit. Use of a standardized assessment tool can alert parents to potential problems and encourage them to play an active part in fostering their child’s development. It also gives the provider a basis for ongoing surveillance, enables tracking of the child’s progress as objectively as possible, and aids in clinical decision-making. If a delay is identified, we can teach the family skills they can use on a daily basis to promote development and make referrals as necessary. In addition to keeping our eyes and ears open, we document concerns articulated by the mom or caregiver as well as a history of the pregnancy, prenatal care, and delivery.”

Child development experts cite hundreds of examples of standardized developmental screening tools with applications in various domains.6,11,12 HCH providers report using one of three comprehensive screening tools:

- **ASQ Ages & Stages Questionnaires** – designed for assessment of children up to age five years; 30 items for each age group, coordinated with well-child visit schedule. Can be administered in 15 minutes. Elicits parent/caregiver responses about skills in four domains: cognition, language, motor, and personal-social. Scoring is pass/fail for each domain. Directions presented at 4th to 6th grade reading level with clear diagrams. Rate of sensitivity for all ages except four months: 79% to 80%; specificity rate: 76% to 91%. (www.brookespublishing.com)

- **PEDS Parents’ Evaluation of Development Status** – designed for assessment of children birth to eight years; 10 questions. Can be administered in 15 minutes. Offers guidance for referral or additional screening; can be used to monitor development, behavior, and academic progress. Scoring: high, moderate, and low risk for developmental and behavioral or mental health problems. Directions at 4th to 5th grade reading level. Sensitivity rate for all ages: 74% to 79%; specificity: 70% to 80%. (www.pedstest.com)

- **Denver II Developmental Screening Test** – surveillance and monitoring instrument employed by professionals or trained paraprofessionals for use with children up to age six. Involves direct examination of the child’s social-personal and language skills, fine and gross motor functions. Test takes 20 minutes to administer and interpret. Has “modest sensitivity and specificity depending on the interpretation of questionable results.”(www.denverii.com/DenverII.html)

All of these instruments are included in the AAP comprehensive list of tools and are available in several languages. Clinicians are encouraged to be familiar with these options and base the choice of screening tool on client need. For more information about early childhood screening, see Developmental Pediatrics online (www.allpeds.org) and AAP online (www.aap.org/healthtopics/early_cm. medicalhomeinfo.org/screening/cdc_rev1.html).

Susan Louisa Montauk, MD, director of Cincinnati’s Homeless Children Thrive and Grow (TAG) Team and staff physician for the HCH Primary Health Van, emphasizes the importance of using a standardized screening tool that has been validated for the population in which it will be used. “Otherwise, the information obtained may not be accurate,” she warns. “I really like the design of the PEDS, but it is not yet validated for homeless groups.” Because every assessment contains a degree of error, reliability and score stability are tested through multiple trials and statistical analysis. In addition, developers analyze groups of test scores to assure consistency with the screen’s intentional measure. Finally, any screening tool must demonstrate technical adequacy through efficient, cost-effective application and be quick and easy to administer.

Practitioners should also be aware that Early and Periodic Screening, Diagnostic, and Treatment (EPSDT) services are mandatory under Medicaid, for which most homeless children qualify, and should be provided as a routine part of primary care. (The National Health Care for the Homeless Council’s approach to outreach is described at www.nhchc.org/Advocacy/tenncareenrollmentproject.html.)

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Top 14 Provider Considerations in Assessing Developmental Delays

- Birth history and any medical concerns or diagnoses
- Child’s assessment by physician or provider
- Child’s assessment for anemia or lead exposure
- Child’s history of domestic violence, trauma, or head trauma
- Child’s diet
- Family history including mother’s emotional health and well-being before and following pregnancy; sibling concerns (developmental delay, ADHD, psychosocial problems)
- Caregiver history of assessment for mental health or cognitive impairments
- Child’s assessment in school or Head Start
- Teacher or community member’s designation of child as being a “problem”
- Length of time in poverty
- Length of time that family has been homeless; how many times family has moved, changed schools
- Child’s foster home placement
- Parent and child engagement: Caregiver’s ability to focus on and understand the child’s needs and importance of care services
- Child’s barriers to receiving care services (cultural, family structure, literacy, language, transportation)

—HCH Clinicians’ Network Pediatric Work Group
Some agencies rely on proprietary assessment tools. Mental health outreach specialist Rachel Herbig, MSW, MHP, works with the Valley Cities Counseling and Consultation Center in Seattle. “Often I start by engaging the family,” Herbig says. “Then I use developmentally appropriate activities with the kids like painting or playing with dolls or trucks. That helps me monitor where they are; after that, everyone is relaxed and I can do the screening. We’ve been using a new agency tool for about five months that’s really helpful. It’s important to get the whole family on board to support the child, learn about development, and learn how to communicate and advocate for the child with health care professionals.”

“Assessment tools are not perfect; they miss things,” acknowledges Susan Kline. “But because they have been tested we understand their strengths and weaknesses. Many tools have been developed specifically to use parental report, but few have been developed for children of highly stressed families. Standardized tools have been tested for validity (what they are intended to reveal), reliability (repeatedly achieving the same results), and accuracy (predicting the presence of developmental delay). The results from the application of a tool are only a part of the information necessary to make a judgment. Test results must be evaluated by the clinician for consistency with his or her observations and those of the caregiver and then put into context. It is important for the provider to be able to observe how Danny lets his caregiver know what he needs, how Danny stacks the blocks, and how he crawls or pulls himself up.”

**Diagnosis and Intervention**

Most of the children that Leslie Larsen, MS, CPNP, RN, sees at The Children’s Clinic in Long Beach, California, are speech-delayed. “They can’t communicate, don’t understand, and have lots of problems with adults and their peers,” says Larsen. “We need a speech-language pathologist who can visit children where they live. Early interventions—zero to three—are mandated based on professional judgment and don’t have to be educationally driven. Because so much is going on in the lives of homeless families, it is hard for them to pursue evaluations; nevertheless, the first years of life are precious opportunities for intervention and go by quickly. Developmental delays get compounded and the really serious problems lead to failure. Moreover, the older a child becomes, the more difficult it is to get interventions.”

Title V of the Social Security Act and the Individuals with Disabilities Education Improvement Act (IDEA) of 2004 mandate early identification of and intervention for developmentally disabled children using a community-based collaborative system. The McKinney-Vento Homeless Assistance Act of 1987 works with the states to protect homeless children’s access to health care and a free, appropriate public education. Unfortunately, federal programs are seldom fully funded and states apply resources differently. If Title VII of McKinney-Vento were fully funded at $210 million, it would ensure every homeless child an opportunity to enroll in and attend school and receive services needed to succeed, contends the National Center on Family Homelessness.

Closely associated with developmental delay in homeless children and likely causative are substantiated high rates of severe hunger and increased incidence of ear infections and asthma. Severe hunger is associated with homelessness in 75% of preschoolers; Weinreb and colleagues further highlight the independent relationship between severe hunger and adverse health conditions in low-income children. HCH providers report that ear infections are the third most common health problem they see in pediatric clients, a problem that may be exacerbated by residential instability and exposure to respiratory infections and secondhand smoke in family shelters. While levels of asthma continue to rise internationally, this disease affects 20% of homeless children compared to 9% of all U.S. children. Some cities have reported asthma prevalence rates as high as 33% among homeless children, who are often undertreated. In addition to hearing and language problems associated with ear infections and upper respiratory infections, there is a predictive relationship between overall language deficits in homeless mothers and their preschool children who may have roots in domestic violence as well as parents’ cognitive and psychosocial capacity.

These research results and adapted clinical practice guidelines developed by the HCH Clinicians’ Network highlight the association between

This map shows how states have responded to the problem of child homelessness across the domains of housing, income, education, and health policies and planning activities. The U.S. Interagency Council on Homelessness (U.S. ICH) and others have encouraged states to engage in a 10-year planning process to end homelessness in their state. This process includes bringing together a wide group of stakeholders such as non-profit, government, and private agencies to develop goals, strategies, and objectives to end homelessness. Only six states have done extensive planning to end child homelessness: Maine, Massachusetts, Montana, Oregon, South Carolina, and Washington. These states can serve as models for states that have just begun the process or have not yet started. There are 24 states that have done little or no planning to end homelessness for children and families. Among these are Arkansas, California, Georgia, Iowa, Mississippi, Nevada, New Mexico, and Texas—all of which have some of the highest rates of child homelessness in the country.
homelessness and chronic health conditions (otitis media, asthma, anxiety and depression) as well as their impact on language development and social interaction within and beyond the family. Clinicians are urged to be aware of these associations in assessing homeless youngsters and their caregivers for developmental delay. Accurate screening results confirmed by observations of clinicians and caregivers lead to good clinical decisions that are crucial in promoting successful social-emotional development.

“Children who are homeless need the same things that other children need to grow up healthy and happy: a safe and stable home; access to quality schools; affordable and reliable health care; healthy meals every day; opportunities to play in safe neighborhoods; strong attachments with caregivers.”

—in America’s Youngest Outcasts: State Report Card on Child Homelessness

In Cincinnati, the Interfaith Hospitality Network (IHN) places 60% of homeless clients in housing. During the recent economic downturn, however, the average 23 day wait for housing and job placements has increased to more than 34 days and will likely continue to expand for some time. Susan Montauk works with the HCH van that services the IHN day shelter and her TAG project works with its clients. “We are finding that 38% of children served have developmental delays. Many of these children come from families with major problems (substance use, PTSD) that present the most difficulty in achieving housing placements,” she says. “That means we are using as many interventions as possible to help little ones and screen parents to help them overcome serious mental health problems so they can help their children. These are incredible problems that have never received adequate attention. In order to give these new generations a stable future, we need to address the whole family’s health needs now.”

“Parental engagement and participation are essential; yet parents who are homeless and suffering the conditions that result in homelessness may be focused on survival priorities and may not be available to perceive subtle developmental delays,” observes Susan Kline. “The key with homeless kids is not only picking up developmental delays and ensuring intervention, but also promoting healthy development in spite of family homelessness. That means giving parents tips on how to promote gross motor development when it’s not safe to leave a baby on the floor; or how to foster social-emotional development in stressful, chaotic environments. Parents and other caregivers can encourage attachment and support a child’s ability to self-regulate emotions and impulses in spite of a very stressful situation by responding to the child’s distress and intentionally interacting with the child. For example, they can dedicate time to interact even if it’s only 10 minutes a day; or create a predictable environment even in an unpredictable life by having the same bedtime routine no matter where the child sleeps or by playing the same game every day at the same time. Sameness and repetition increase the child’s ability to predict his or her environment, which in turn increases the child’s sense of security. Communication between parent and child, predictability in parental responses and activities, and parental control over the environment foster positive social-emotional development for the child and help the parent as well.”

The Children’s Hospital of Philadelphia’s Homeless Health Initiative (HHI) has connected six family shelters with health care professionals who volunteer medical, dental, and nursing services and with the hospital’s LEND (Leadership Education in Neurodevelopmental and Related Disabilities) Fellows, who provide expertise in child health and development. “A recently added component of our work is training shelter staff to screen for developmental delay using ASQ,” says HHI program manager Karen M. Hudson, MSW, LSW. “We are working to change the shelter culture by encouraging greater awareness among staff and parents about healthy child development. Our most important role is to increase capacity for care through training shelter staff to support families.”

Children who need additional evaluation and care are referred to local service providers such as Child Link and Elwyn, an organization that offers programs for children and adults with disabilities and disadvantages.

The Philadelphia Health Management Corporation (PHMC) is a nonprofit public health organization that serves communities across the Delaware Valley. PHMC partners with family shelters as well as local government agencies and providers to identify and serve vulnerable children as part of the federal Child Find project. Deborah McMillan, MSW, assistant vice president for social programs, describes their work as a “collaboration across systems that enhances the close relationship between the shelter staff, children specialist, and early intervention (EI) providers. The EI specialist screens children with the ASQ, shares findings with families, and initiates and follows up on referrals. The program coordinates the on site delivery of early intervention services in shelters for all eligible children, which cements ongoing relationships with providers.” Low-key workshops—Chat ‘n’ Chews—are designed around topics developed by parents and bring partner agencies into shelters to teach parents and staff about child development. The PHMC model currently serves 90% of family shelters in Philadelphia and has proven successful in following children when their families move to housing.

SOURCES & RESOURCES

Developmental Delays in 0-3 Year Olds: Screening & Successful Follow-Up – Saturday, June 27, 9:00 – 10:30 a.m.

Presenters: Tanya Froehlich, Susan Louisa Montauk, Ashley Tucker

Available research suggests that 50% of homeless children 0-3 years old have developmental delays; three to four times that of children in the general population. Despite federal mandates for early detection, unrecognized delays in homeless children are the norm. Skilled intervention for delays can have powerfully positive, lifelong impact. This workshop reviews successful strategies for testing and assisting appropriate families to follow through with their child’s therapeutic needs.