

Early Developmental Screening in High-Risk Communities: Implications for Research and Child Welfare Policy

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Abstract

Early detection of developmental delays in children living in high-risk communities enables effective intervention and promotes positive outcomes. Until now, the mechanisms by which these risks and benefits arise and persist have yet to be documented from a synergistic perspective. We take a dynamic, ecological theoretical approach to examine the interplay between developmental surveillance, professional support and parental understanding of children's developmental progress. The Regional ASQ Developmental Screening Project* used geo-mapping to target the highest risk communities in three metropolitan Detroit counties. Statistical analyses using paired t tests compared screening results for 1,640 children in high-risk communities to results for 24,220 children living in surrounding communities. Children in high-risk communities had a substantially higher risk of developmental delay than the rest of Metro Detroit (43% vs. 28%). There were significant differences in the overall scores from the initial screens ($M = 2.38$, $SD = .788$) to subsequent screens ($M = 2.46$, $SD = .706$): $t(1,640) = -5.104$ $p < .05$, suggesting that risk of delay decreases over time. There were statistically significant differences in the overall risk for developmental delay and within in the domain of fine motor development. These results

provide an empirical basis to develop prevention and intervention programs and child welfare policy. We suggest ways to build capacity at the individual, institutional, and societal levels. Future research should focus on exploring the unique interplay of community-level risk with family and child level risk and protective factors.

Keywords: Early developmental screening, high-risk communities, developmental delay, child welfare policy, capacity building

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Introduction

Children living in high-risk communities suffer the most frequent and the most severe developmental delays and take longer to recover from delays than children living in other communities. High-risk communities are characterized by concomitantly high rates of poverty, unemployment and violence (Emerson, 2004; Fujiura & Yamaki, 2000; Shonkoff & Phillips, 2000). As Brooks-Gunn and Duncan (1997) demonstrate, children living in poverty are more likely to experience developmental delays. Further, a report from the Florida Department of Health (2015) demonstrates that poverty is a strong indicator of poor developmental health in children when compared to children from higher income groups. Children living in high-risk communities suffer from an array of physical, cognitive and socio-emotional delays due to poverty and its confounding factors such as unemployment, reduced educational attainment and violence (Aber, Morris, & Raver, 2012; Schellenbach, Culp, & Nygen, 2013). Poverty and its associated factors are related to higher rates of neonatal and postnatal mortality, greater risk of physical injury, and higher rates of child abuse and neglect. Children from high-risk communities have greater exposure to trauma and lower developmental scores on cognitive and socioemotional outcomes. Moreover, for children living in poverty during

the first five years of life, these negative outcomes are likely to be severe and long-lasting.

High-risk communities stand to benefit greatly from early detection of developmental delays which increased employment, improved family stability, improved educational outcomes, reduced delinquency rates and reduced poverty rates (Anderson, Shinn, Fullilove, Scrimsha, Fielding, Normand, & Carande-Kulis, 2003; Emerson, 2004; Fujiura & Yamaki, 2000; Glascoe & Shapiro, 2004; Shonkoff & Phillips, 2000). However, children living in high-risk communities are less likely to receive developmental health screening due to limited professional resources. Thus, it is critical to document screening outcomes for children in high-risk communities, and to address possible changes to the ways in which children from high-risk communities are screened and supported to improve long-term outcomes. This research integrates the existing research on children in high-risk communities with a robust measure of early child development, the *Ages and Stages Developmental Screening Questionnaire* (ASQ-3) developed by Squires, Bricker, and Potter (1997). We suggest steps to improve outcomes for children through capacity building in social and healthcare organizations already working in Macomb, Oakland, and Wayne Counties, located in Southeastern Michigan.

The *ASQ Developmental Screening Project* targeted high-needs children in high-risk communities by using an innovative geo-mapping technique that employed poverty data from each county, the State of Michigan, and 2010 U.S. Census Data. Geo-mapping identified the most high-risk community in each county: Warren in Macomb County, Pontiac in Oakland County, and Detroit, in Wayne County. When children in these cities were screened in accordance with the ASQ-3 screening criteria, we found that

children were at greater risk for strong or potential developmental delay overall and that screening does not produce a statistically significant change in outcomes in subsequent screening without intervention. Thus, we argue that children living in high-risk environments will benefit significantly from screening aimed at early detection of developmental delays. We also suggest that in order to provide this intervention with the urgency that is needed, efforts to build capacity should begin at the individual, institutional, and societal levels.

Literature Review

Using a developmental, ecological theoretical approach (Garbarino, 2001), this paper will document the effects of neighborhood risk on early childhood outcomes in impoverished communities designated as high-risk. Shonkoff and Phillip (2000) found that children exposed to high risk have a higher probability of developing cognitive, social and emotional problems in early childhood (2000). Early childhood experiences with poverty, domestic violence, teen pregnancy, child abuse and neglect, or having a single or a mentally ill parent place children at most risk for developmental disabilities (DePanfilis, 2006). Research underscores the need to assess the pathways through which these negative factors affect developmental outcomes. For example, the structural approach suggests that high-risk communities affect child outcomes directly through the lack of resources to support children and families in these areas.

Research shows that when schools lack high-quality learning opportunities and there are deficits in quality child care amidst high concentrations of poverty and unemployment, high-risk communities are created resulting in negative early childhood outcomes. For example Leventhal and Brooks-Gunn (2000) used geo-mapping methodology to identify high-risk census tracts characterized by a high concentration of

families living in poverty, high unemployment and public assistance, all factors that tend to be directly associated with negative child outcomes. However, more recent research grounded in ecological theory has demonstrated that community factors are likely to affect child outcomes through more indirect pathways, influencing child outcomes through proximal behaviors such as parental mental health, quality of parenting, and positive home environments (Sandler, Ayers, Suter, & Schultz, 2004).

Empirical findings further suggest children from low-income and single-parent households have increased rates of developmental problems (Emerson, 2004; Fujiura & Yamaki, 2000). Additionally, children exposed to family violence, parental mental health problems such as depression, or parental substance abuse are at even higher risk for developmental delays in early childhood (Shonkoff & Phillips, 2000). Moreover, these children tend to have multiple developmental problems, resulting in an accumulation of risk (Garbarino, 2001). Delays in one developmental domain are commonly associated with delays in other domains (e.g. children who have internalizing problem behaviors are likely to have problems with social abilities). Children who are identified early and participate in prevention or intervention programs prior to kindergarten are more likely to graduate from high school, maintain employment, and live independently in later years (Olds, 2002).

Developmental screening is recognized as an effective method for identifying delays among young children (Drotar, Stancin, Dworkin, Sices, & Woods, 2008). Without early screening, children are more likely to struggle with cumulative risk factors and are less likely to show positive outcomes in the context of adversity. According to Meisels and Atkins-Burnett (2005), developmental screening involves the use of a standardized tool allowing the screener to provide an initial assessment of the

developmental ability of each child. Once a child is assessed, a recommendation for further developmental assessment can be administered (Meisels & Atkins-Burnett, 2005). The Ages and Stages Questionnaire-3 is recognized as a reliable and valid developmental screening tool for children ages one to 66 months when used to assess developmental delays in communication, gross motor skills, fine motor skills, problem-solving, and personal-social skills (Squires, Bricker, & Potter, 1997).

This research extends past research by providing evidence on the association between scores of children in targeted high-risk communities and subsequent scores on developmental delays. Specifically, the current research hypothesized that:

1. Young children in high-risk communities show strong and continued risk for developmental delays in early childhood;
2. Developmental screening programs using the ASQ-3 are effective in identifying and tracking developmental delays; and
3. Developmental screening is effective in tracking positive gains in scores following early screening.

These data are crucially important in providing an empirical basis for the development of prevention programs, intervention programs, and child welfare policy to promote positive early childhood outcomes in high-risk communities.

Methods

The development of the *ASQ Developmental Screening Project* was a collaborative effort of the Great Start Collaboratives from Wayne, Oakland, and Macomb counties. The project included the efforts of hundreds of professionals conducting screenings from Great Start Collaborative organizations in Macomb, Oakland, and Wayne counties. During this study, 21,473 children were screened at least

once; of these, 7,423 children were screened more than once. This yielded a grand total of 38,244 screens which include one-time and repeated measures. For purposes of comparison, we identified the three highest risk communities in Macomb, Oakland and Wayne counties with at least 14,024 ASQ-3 developmental screenings. The effort was supported by the use of geo-mapping to identify high-risk areas based on poverty data, and targeted Warren, Pontiac and Detroit. Existing data suggested these three communities have the strongest risk of long-term negative outcomes if developmental delays are not properly screened using early detection assessment tools.

Study Population

Based on the analyses of existing poverty statistics, the evaluation team identified communities in Macomb, Oakland and Wayne counties with populations of over 25,000 (U.S. Census Bureau, 2010) that appeared to be at highest risk of poverty. High risk identification required a score in the top five in each respective county for the following poverty factors: households living in poverty, families living in poverty, children under the age of 18 living in poverty, female-headed households and disability rates for the poor. Further, each community population had to have completed 2000 ASQ-3 screenings with more than 200 children. Thus, the three high-risk communities that met the criteria were Warren in Macomb County, Pontiac in Oakland County and Detroit in Wayne County.

The developmental risk in these three communities was also compared to surrounding communities not designated as high-risk in these three counties. Data from approximate 24,220 developmental screenings from the surrounding area Metro-Detroit (excluding Detroit, Pontiac, and Warren) were used to compare results. These

communities did not meet the number of screenings threshold nor did they meet the poverty threshold to be considered high-risk for the purpose of this study.

Study Instrument

The ASQ-3 is a developmental status assessment tool for children between one month and 5½ years of age. The tool assesses five developmental domains: communication, gross motor, fine motor, problem-solving, and personal-social. There are 21 age-appropriate questionnaires, with approximately 30 items with six items per domain, which assist in assessing the child's ability at different age intervals. The *ASQ-3™ User's Guide* provides coding instructions on whether a child is able to complete an item: 0 = Not yet, 5 = Sometimes, and 10 = Yes. It also includes instructions for coding missing data, which were followed. Finally, "risk of delay" was coded as follows: 3 = on track developmentally, 2 = potential concern for a developmental delay, and 1 = strong concern for a developmental delay.

Statistical Analyses

We used descriptive statistics to examine the frequency of screens that scored in one of the three risk categories from the cities of Warren, Pontiac and Detroit. Moreover, scores were compared with surrounding cities throughout southeastern Michigan. Next, we conducted paired samples t-tests to examine the risk of delay from the initial screen to determine if the risk of delay decreased when screened again at a subsequent age interval. Children with screenings at multiple age intervals who had scores from the previous screening were used for the comparison. For example, if a child was screened at 8 months, 12 months, and 16 months, the 8 month screening was used as the initial score and the 16 month screening was used as the final score when comparing means scores.

Results

Findings show that (43%) of screenings from the three high-risk communities, Warren Pontiac, and Detroit, had an overall risk of strong or potential risk for developmental delay. This rate is substantially higher when compared to the ASQ-3 screens from the rest of the Metro-Detroit area (43% vs. 28%). The findings below reflect a sample size of 1,640 children who had more than one screening at different age intervals residing in Warren, Pontiac, and Detroit. From the total of 14,024 ASQ-3 screenings completed in these areas, only 1,640 children had scores to compare at different age intervals.

Overall, data from the cities of Warren, Pontiac, and Detroit indicate a significant difference in the overall scores from the initial screens ($M = 2.38$, $SD = .788$) to subsequent screens ($M = 2.46$, $SD = .706$). The results show: $t(1,640) = -5.104$ $p < .05$. This finding suggests the risk of delay decreased over time when children were screened again at a later age interval. We also found children in these three communities experience a statistically significant difference in the overall scores of risk for developmental delay. Within group analyses of developmental domain scores did not produce a statistically significant change in outcomes at subsequent screening. The only category with statistical significance is the area fine motor development.

Table 1: Paired Samples T-Test: Development Risk Score for Warren, Pontiac, and Detroit

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	95% Confidence Interval of the Difference					
				Mean	Lower	Upper			
Pair 1	Initial Communication Risk Score vs. Final Communication Risk Score	.011	.652	.016	-.021	.043	.681	1640	.496
Pair 2	Initial Gross Risk Score vs. Final Gross Risk Score	-.020	.673	.017	-.053	.012	-1.211	1640	.226
Pair	Initial Fine Risk Score vs.	-.056	.171	.018	-.091	-.021	-3.168	1640	.002*

3	Final Fine Risk Score									
Pair 4	Initial Problem Solving Risk Score vs. Final Problem Solving Risk Score	-.013	.668	.016	-.045	.020	-.777	1640	.437	
Pair 5	Initial Personal/Emotional Risk Score vs. Final Personal/Emotional Risk Score	-.007	.629	.016	-.038	.023	-.471	1640	.637	
Pair 6	Initial Overall Risk Score vs. Final Overall Risk Score	-.102	.808	.020	-.141	-.063	-5.104	1640	.000*	

*p < .05, two-tailed

While results indicate a positive direction reducing the overall risk of delay, these findings also suggest that children in high-risk communities experience less positive change within the five developmental domains when compared to the surrounding communities.

Table 2: Paired Samples T-Test: Development Risk Score for Surrounding Southeastern MI Communities Excluding: Warren, Pontiac, and Detroit

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	95% Confidence Interval of the Difference					
				Mean	Lower	Upper			
Pair 1	Initial Communication Risk Score vs. Final Communication Risk Score	-.013	.637	.009	-.031	.005	-1.406	4793	.160
Pair 2	Initial Gross Risk Score- vs. Final Gross Risk Score	-.033	.646	.009	-.051	-.015	-3.557	4793	.000 *
Pair 3	Initial Fine Risk Score vs. Final Fine Risk Score	-.060	.679	.010	-.079	-.041	-6.127	4793	.000 *
Pair 4	Initial Problem Solving Risk Score vs. Final Problem Solving Risk Score	-.059	.632	.009	-.077	-.041	-6.418	4793	.000 *
Pair 5	Initial Personal/Emotional Risk Score vs. Final Personal/Emotional Risk Score	-.050	.629	.009	-.068	-.032	-5.487	4793	.000 *
Pair 6	Initial Overall Risk Score vs. Final Overall Risk Score	-.140	.836	.012	-.164	-.116	-11.606	4793	.000 *

*p < .05 level

Comparing Warren, Pontiac and Detroit to surrounding communities, our findings demonstrate statistical significance in all but one developmental domain (communication). Thus, our research findings suggest communities not classified as

high-risk are more likely to show screenings indicative of positive changes in children's developmental health.

Discussion

The findings suggest children from lower socioeconomic communities are more vulnerable to developmental delays when compared to other children not residing in high-risk communities. Our initial findings indicate high-risk communities and children within these communities would benefit greatly from continuing direct targeting with the ASQ-3 developmental screening. They would also benefit from collaborative measures for programs to provide assistance built through capacity building. Our findings also suggest children living in high-risk communities experience less positive change in individual developmental domains when compared to children from the surrounding communities. Communities with the greatest risk factors often experience positive change at a much slower rate. A potential explanation could be that services providers are not able to provide a comprehensive approach to addressing developmental health. Instead, they typically address individual developmental domains separately. Another explanation could be less access to quality services, high demand for services without adequate resources, and a lack of coordinated efforts by community organizations. A substantial body of evidence shows that early childhood screening and collaborative efforts can have a positive effect on preventing long-term negative outcomes for children with developmental delays (Drotar, Stancin, Dworkin, et al., 2008). Therefore, data from these screens can be used to plan strategies to provide services to those with the highest need. In our next section on implications, we offer key strategies that capacity building can occur to improve outcomes for these children, their families and communities.

Implications

The ASQ-3 Developmental Screening of children in high-risk communities affirms that children living in high-risk communities are at greater risk for developmental delays. Social workers and other professionals can utilize the study findings to explore how childhood poverty is associated with strong risk or potential risk for developmental delays. The study findings further underscore the need to improve outcomes for children in high-risk communities. The improvement of children's outcomes during their early childhood development is likely to lead to more positive long-term developmental outcomes (Aber, Morris, & Raver, 2012). Moreover, social workers and others who work with children in high risk communities can work to improve capacity building at three levels, individual, institutional and societal, in efforts to build long lasting change that improves both the outcomes for children and their communities. As such, we utilize a developmental ecological model to discuss how capacity building can be addressed at these three levels to improve outcomes and support change in children's developmental outcomes.

Individual

As mentioned briefly above, social workers, primary health care providers, educators, and other professionals working with children need to take the lead in educating themselves and training others about the importance of screening children for developmental delays (Garbarino, Hammond, Mercy, Yung, 2004). As front-line staff, social workers need to be aware of screening tools that can be used to measure potential risk and engage parents, extended family, and other professionals in the process of early detection. Training on how to administer screening tools or where children can be referred for screening is necessary as well. For children who may have been screened

and are receiving follow-up services, social workers need to be involved with monitoring progress and being aware of additional risk factors that may impact development. Addressing developmental delays with their children can be a very difficult process for parents and other family members. Social workers need to have the knowledge and skills to guide parents and family members through the screening process and to provide referrals and other resources if those are needed (U.S. Department of Health and Human Services, 2014).

Institutional

Social workers and other child service professionals can unite in development of training for awareness and implementation of early childhood screening and intervention. Unfortunately, if child welfare agencies and organizations are not responsive to this need, the problem will be difficult to address in an effective way. First, institutions that serve young children need to be aware of and in compliance with federal and state policies related to early childhood development. The Child Abuse Prevention and Treatment Act (CAPTA), the Individuals with Disabilities Education Act (IDEA), and other related policies determine the requirements and provisions within which agencies and institutions must work. Second, institutions need to make sure they have structures in place for screening and/or referring children for screening. Screening can be done in a diverse array of locations, including schools, agencies, physicians' offices, but appropriate structures need to be in place for it to be helpful and effective. Next, agencies need to train their staff on the importance of early childhood development, the importance of screening, and on screening tools that can be used to assess delays. Agencies and other institutions also need to have trained, competent staff that can provide support, guidance, and information to parents and other family

members. Agencies should also be equipped to provide interventions to address issues and if not, knowledge of referrals to appropriate services. Having a formal structure in place for screening, providing interventions, and monitoring is essential for agencies to be effective. If agencies are unable to provide services due to financial constraints, federal funds through CAPTA, IDEA and other sources, may be available to assist in providing staff training and service delivery. Agencies should look for any external support that would be helpful for them to be more effective to provide these services.

Societal

In terms of societal level implications, we can examine the importance of having policies in place that support screening for developmental delays at an early age and ensure that necessary services exist to address delays in children. CAPTA includes federal laws around child welfare services in the United States. In the state of Michigan, for example, CAPTA federal law requires that all children birth to three who have experienced a substantiated case of child abuse and neglect are referred to Part C of IDEA (the Early On program in Michigan) for further assessment and evaluation.

In 2003, amendments were made to CAPTA that call for increased linkages between child protective service agencies and public health, mental health, and developmental disabilities agencies (Pennsylvania Child Resource Center, 2012). While the amendments do not specifically require screening, the state of Pennsylvania began statewide developmental and social-emotional screening in 2008, attempting to comply with the amendments. In 2010, they expanded their efforts by requiring children under three in higher risk categories to be referred or screened (Pennsylvania Child Welfare Resource Center, 2012). New York and California are other states that have implemented programs aimed at early screening (U.S. Department of Education, n.d.).

Despite providing much information online about the importance of early screening programs, the Federal government has left it up to the states to implement screening interventions. It is important to note that Michigan is a model state in that it is governed by a birth mandate serving children with developmental delays and has established conditions for the birth to three population through the statewide Early On system. Given that screening is required in Michigan, children at a higher risk for developmental delays will be less likely to fall through the cracks and more likely to receive necessary services to help them be “on track.” It is not likely that child welfare agencies will institute these changes on their own. Policies that require screening and provide financial resources to support these services are integral to making this happen.

Conclusion

The findings highlight the importance of the dynamic, ecological approach to examining the interplay among multiple levels of social context, developmental surveillance, professional support and parental understanding of their children's developmental progress. Thus, it would be more effective to promote long-term positive gains using a multi-layered, strength-based approach rather than simply reducing risk factors alone (Maton, Schellenbach, Leadbeater, & Solarz, 2005). With formal screening programs in place, child welfare agencies and institutions can ensure that social workers and other professionals are trained and informed on evidence-based practice methods that will ensure children are being screened, monitored, and provided necessary follow-up services. In addition, parents and providers can work together as a team to develop a comprehensive plan aimed at improving developmental outcomes for children in high-risk communities. Future research should focus on more intensive analyses to explore the unique interplay of community-level risk with family and child

level risk and protective factors. These studies will assist social service agencies in planning more effective services to higher risk communities.

References

- Aber, L., Morris, P., & Raver, C. (2012). Children, families and poverty: Definitions, trends, emerging science and implications for policy. *Social Policy Report, 26*(3), 1-19.
- Anderson, L. M., Shinn, C., Fullilove, M. T., Scrimshaw, S. C., Fielding, J. E., Normand, J., . . . Task Force on Community Preventive Services. (2003). The effectiveness of early childhood development programs: A systematic review. *American Journal of Preventive Medicine, 24*(3), 32-46. doi:10.1016/S0749-3797 (02)00655-4
- Brooks-Gunn, J., & Duncan, G. J. (1997). The effects of poverty on children. *The Future of Children, 7*(2, Children and Poverty), 55-71.
- DePanfilis, D. (2006). *Child neglect: A guide for prevention, assessment, and intervention* US Dept. of Health and Human Services, Administration for Children and Families, Administration on Children, Youth and Families, Children's Bureau, Office on Child Abuse and Neglect.
- Drotar, D., Stancin, T., Dworkin, P. H., Sices, L., & Wood, S. (2008). Selecting developmental surveillance and screening tools. *Pediatrics in Review / American Academy of Pediatrics, 29*(10), e52-8. doi:10.1542/pir.29-10-e52 [doi]
- Emerson, E. (2004). Poverty and children with intellectual disabilities in the world's richer countries. *Journal of Intellectual and Developmental Disability, 29*(4), 319-338. doi:10.1080/13668250400014491
- Florida Department of Health (2015) Title V Needs Assessment MCH Topic Brief. Retrieved from http://www.floridahealth.gov/programs-and-services/womens-health/pregnancy/7__2015-title-v-brief-developmental-screening-final-11-06-2014.pdf
- Fujiura, G. T., & Yamaki, K. (2000). Trends in demography of childhood poverty and disability. *Exceptional Children, 66*(2), 187-199.
- Garbarino, J. (2001). An ecological perspective on the effects of violence on children. *Journal of Community Psychology, 29*(3), 361-378.
- Glascoc, F., & Shapiro, H. (2004). *Introduction to Developmental and Behavioral Screening. Developmental Behavioral Pediatrics Online,*
- Leventhal, T., & Brooks-Gunn, J. (2000). The neighborhoods they live in: The effects of neighborhood residence on child and adolescent outcomes. *Psychological Bulletin, 126*(2), 309.

- Maton, K. I., Schellenbach, C. J., Leadbeater, B. J., & Solarz, A. (Eds.). (2004). *Investing in children, youth, families, and communities: Strengths-based research and policy*. Washington, DC: American Psychological Association.
- Meisels, S. J., & Atkins-Burnett, S. (2005). *Developmental screening in early childhood: A guide*. Washington, D.C: National Association for the Education of Young Children.
- San, D. L. (2002). Prenatal and infancy home visiting by nurses: From randomized trials to community replication. *Prevention Science*, 3(3), 153-172.
doi:10.1023/A:1019990432161
- Pennsylvania Child Welfare Resource Center, (2012). *Develop screening project*. Retrieved from <http://www.pacwrc.pitt.edu/ASQ.htm>
- Sandler, I. N., Ayers, T. S., Suter, J. C., Schultz, A., & Twohey-Jacobs, J. (2004). Adversities, strengths, and public policy.
- Schellenbach, C., Culp, A. M., & Nguyen, L. (2013). The wellbeing of children in the United States: Evidence for a call for action. *Child and family advocacy* (pp. 3-10) Springer.
- Shonkoff, J. P., Phillips, D. A. (2000) . *From neurons to neighborhoods: The science of early childhood development*. Washington: National Academy Press
- Squires, J., Bricker, D., & Potter, L. (1997). Revision of a parent-completed development screening tool: Ages and stages questionnaires. *Journal of Pediatric Psychology*, 22(3), 313-328.
- United States Census Bureau. (2010). *2010 Census*. U.S. Census Bureau. Retrieved on February 24, 2015 from: <<http://www.census.gov/2010census/data/>>.
- United States Department of Education. (n.d.). Retrieved on February 23, 2015 from <http://www.ed.gov/blog/2014/04/early-screening-is-vital-to-children-and-their-families/>.
- United States Department of Health and Human Services. (2014). Retrieved on February 23, 2015 from https://www.acf.hhs.gov/sites/default/files/ecd/child_welfare_guide_march2014.pdf.

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